

824 KKI89

Danida

KENYA
KITUI INTEGRATED DEVELOPMENT PROGRAMME

FOR ARID AND SEMI-ARID LANDS

PLAN OF OPERATIONS
PHASE I

VOLUME III
ANNEXES

September 1989

Danish International
Development Agency

Ministry of Reclamation and
Development of Arid, Semi-
Arid and Wastelands

Danida 104.Kenya 89

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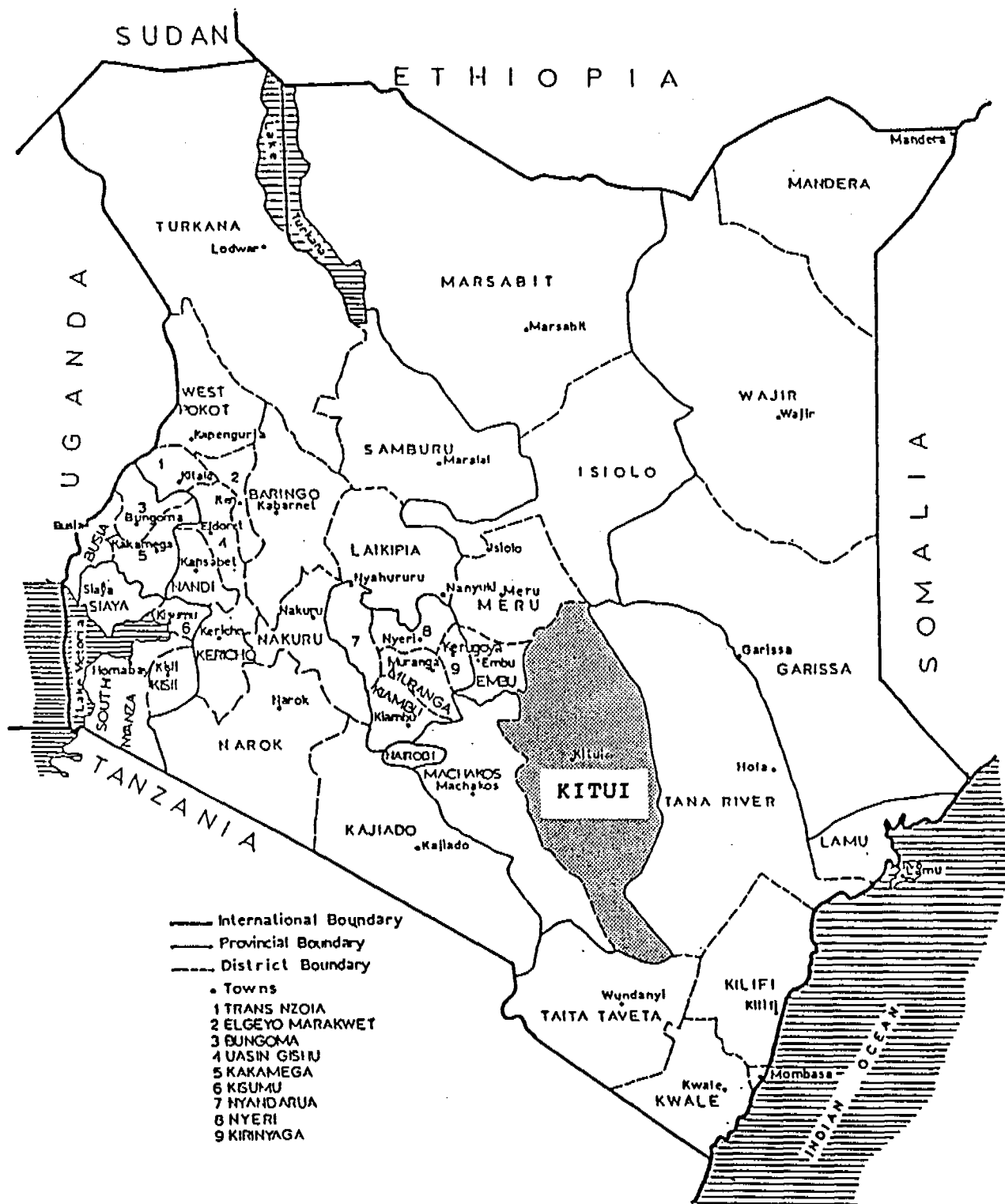
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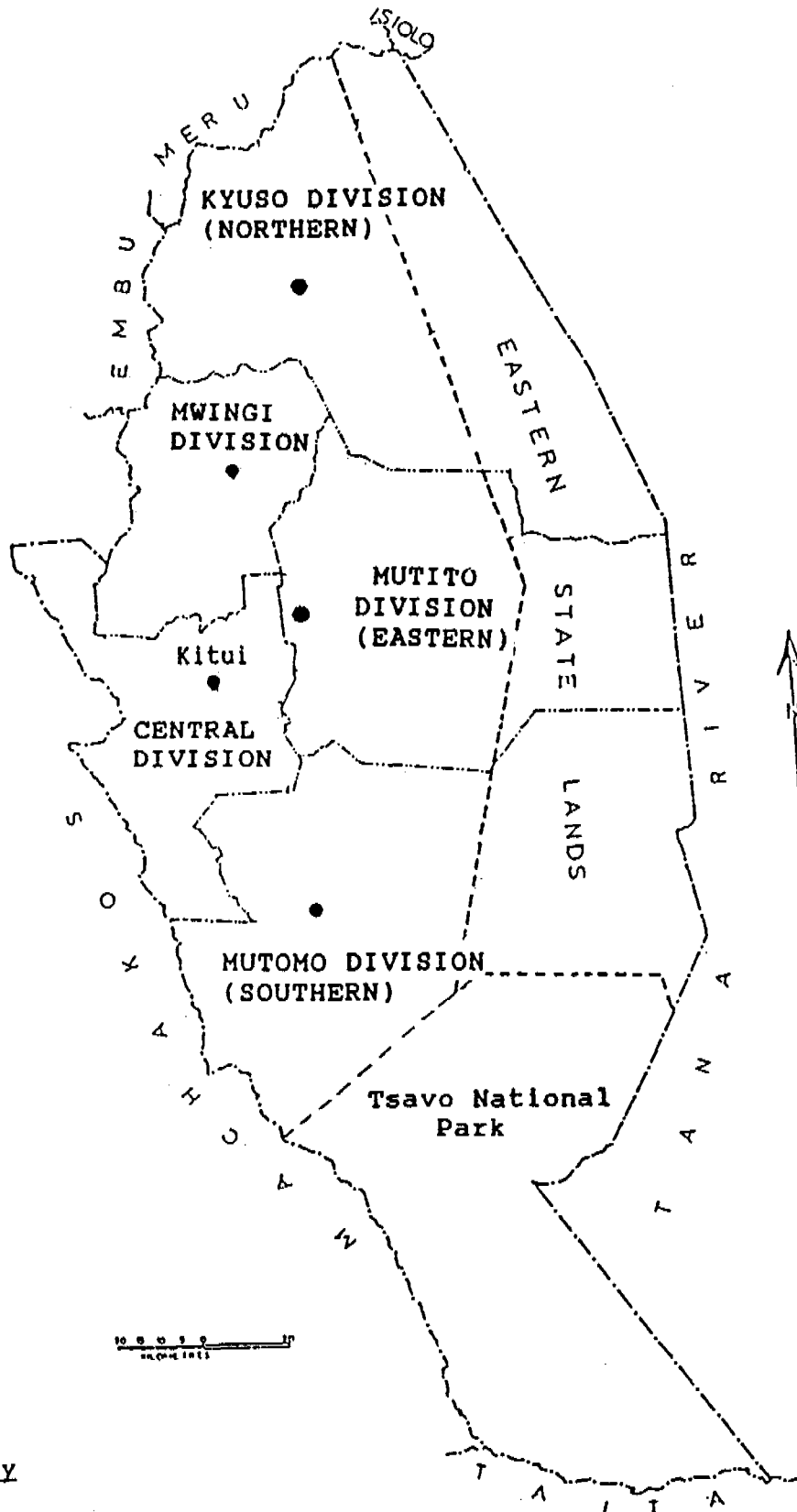
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Map 1: Location of Kitui District



Map 2: Kitui District -
Administrative Boundaries



Key

- District Boundary
- - - Division Boundary
- Division Centre

ACRONYMS AND ABBREVIATIONS

AAPO	Assistant Animal Production Officer
ACS	Assistant Construction Supervisor
AE	Adult Education
A-in-A	Appropriation-in-Aid
AHA	Animal Health Assistant
AI	Artificial Insemination
AIE	Authority to Incur Expenditure
ALDEV	African Land Development Organisation
ARO	Assistant Range Officer
ASAL	Arid and Semi-Arid Lands
ATO	Assistant Training Officer
bgl	below ground level
BLI	Better Living Institute
CBPP	Contagious Bovine Pleuro-pneumonia
CCPP	Contagious Caprine Pleuro-pneumonia
CDA	Community Development Assistant
CET	Community Education and Training
CETS	Community Education and Training Section
CF	Conservator of Forests
CPR	Common Property Rights
DAdEO	District Adult Education Officer
DAEO	Divisional Agricultural Extension Officer
DAO	District Agricultural Officer
DAPO	District Animal Production Officer
DC	District Commissioner
DDC	District Development Committee
DDO	District Development Officer
DEC	District Executive Committee
DFEO	District Forestry Extension Officer
DFO	District Forestry Officer
DLEO	District Livestock Extension Officer
DLMO	District Livestock Marketing Officer
DLO	District Livestock Officer
DLPO	District Livestock Production Officer
DPO	District Programme Officer
DFU	District Planning Unit
DRO	District Range Officer
DRP	District Range Planner
DSDO	District Social Development Officer
DSO	District Statistical Officer
DTB	District Tender Board
DWE	District Water Engineer
Dv/Div	Divisional
Div.FEO	Divisional Forestry Extension Officer
DvSCO	Divisional Soil Conservation Officer
DVO	District Veterinary Officer
E/GT	Extended Ground Storage Tank
E/DM	Earth Dam
E/DS	Small Earth Dam

FY	Financial Year
GASP	Goat and Sheep Project
GOK	Government of Kenya
G/T	Ground Tank
GWD	Groundwater Dam
ha	hectare
HQ	Headquarters
H&S	Hides and Skins
H&SI	Hides and Skins Inspector
IMMC	Inter-Ministerial Coordinating Committee
JP	Joint Project
JTA	Junior Technical Assistant
KANU	Kenya African National Union
KIDP	Kitui Integrated Development Programme
KGGCU	Kenya Grain Growers Cooperative Union
km	kilometre
KREMU	Kenya Rangeland Ecological Monitoring Unit
KTB	Kenya Top Bar (Hive)
KWIFT	Kenya Women's Finance Trust Ltd
LDC	Locational Development Committee
LDO	Livestock Development Officer
LEO	Locational Extension Officer
LPO	Local Purchase Order
lps	litres per second
LSO	Local Service Order
LWB	Long Wheel Base
MENR	Ministry of Environment and Natural Resources
MIDP	Machakos Integrated Development Programme
MOA	Ministry of Agriculture
MOALD	Ministry of Agriculture and Livestock Development (now divided into MOA and MOLD)
MOCSS	Ministry of Culture and Social Services
MOF	Ministry of Finance
MOH	Ministry of Health
MOLD	Ministry of Livestock Development
MOPND	Ministry of Planning and National Development
MOWD	Ministry of Water Development
MRDASAW	Ministry of Reclamation and Development of Arid, Semi-Arid and Wastelands
MSWCP	Mutomo Soil and Water Conservation Project
NEP	National Extension Project
NGO	Non-Governmental Organisation
OHP	Overhead Projector

PC	Programme Coordinator/Personal Computer
PMU	Programme Management Unit
PO	Programme Officer (or Post Office)
PSC	Programme Steering Committee
PY	Programme Year
RAES	Rural Afforestation Extension Service
R/C	Rock Catchment
RDF	Rural Development Fund
RO	Range Officer
RRA	Rapid Rural Appraisal
S&M	Survey and Monitoring
SC	Soil Conservation
SCO	Soil Conservation Officer
S/D	Sand Dam
SDA	Social Development Assistant
SIDA	Swedish International Development Authority
SLDC	Sub-Local Development Committee
SMA	Survey and Monitoring Assistant
SMD	Survey and Monitoring Officer
SMS	Survey and Monitoring Section
S/P	Spring Protection
SSC	Site Survey Consultant
SS/D	Subsurface Dam
STO	Senior Training Officer
S/W	Shallow Well
SWB	Short Wheel Base
SWCB	Soil and Water Conservation Branch
SWE	Senior Water Engineer
TA	Technical Assistant (MOA field staff)
TARDA	Tana and Athi River Development Authority
TO	Technical Officer
TOT	Training of Trainers
TRA	Technical Range Assistant
TTAP	Taita-Taveta ASAL Programme
T&V	Training and Visit (extension system)
USAID	United States Agency for International Development
VO	Veterinary Officer
WPCU	Water Programme Coordination Unit
W/S	Water Supply

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Annex A

Terms of Reference

FOR PREPARATION OF PLAN OF OPERATION FOR THE KITUI ASAL PROGRAMME

1. Background and Mission Objectives

Since 1982 Danida has been implementing a Soil and Water Conservation Project in Mutomo Division, Kitui District. In December 1987 the Government of Kenya (GoK) requested Danida to extend its activities to the whole district and take up activities which until then had been supported through USAID.

In preparation for the programme Danida has undertaken a number of appraisals: the General Appraisal Mission, the Forestry Appraisal Mission, the Livestock Sector Programming Mission, and a Review of Water Development Projects under USAID. The reports produced will be the basis for the preparation of the Plan of Operation (Plan Op) for the Kitui ASAL Programme.

The objectives of the Preparation Team for the proposed mission shall be, through the preparation of a Plan Op, to provide a work plan for the first year's operation scheduled to begin on 1 July, 1989, as well as a planning framework for the entire five year project period till mid 1994 (Phase 1).

In pursuing this objective the mission shall work closely with the concerned implementing Ministries at central, district and lower level to ensure that the Plan Op reflects the needs and priorities of the GoK as reflected in the District Focus Strategy. Experiences with community (group) participation in the district shall be duly taken into account.

2. Project Objectives

Within the overall objectives of the ASAL Programme as stated in the forthcoming 1989-93 Development Plan, the overall development objectives of the Kitui ASAL programme will be to support a development process in the district, based upon:

- Regeneration and preservation of natural resources through soil and water conservation, afforestation and range rehabilitation.
- Strengthening of community participation in development activities.
- Improving agricultural and livestock practices.

This should lead to increased agricultural and livestock production required to maintain the standard of living for the growing population.

3. Project Activities

Major project activities will be:

- Water development and water conservation.
- Soil and moisture conservation and related agricultural practices.
- Livestock development.
- Non-farm activities.
- Forestry activities, including afforestation to protect catchment areas and natural springs, and agroforestry.

The project will also include the following cross sectoral support components:

- General institutional development support (covering e.g. staff training).
- Specific support to:
 - Mobilization and training of community members.
 - Agricultural extension and training.
- Survey and monitoring of programme activities and of the impact of programme activities on targets and target groups.

4. Mission Activities

In preparing the project's five year Plan Op (covering implementation strategy, phasing and institutional/ organizational arrangements) and first year detailed Plan of Implementation, the mission shall undertake but not necessarily be limited to the following tasks:

Project Strategy

- develop a strategy for the geographical progression of the project as well as its development over time;
- examine the interrelationships and complementarity between the programme sectors referred to below and ensure that these are catered for in the project strategy.

Training and Mobilization

- propose an operational mobilization strategy to ensure full participation of the entire target group in all stages of the implementation of sectoral activities, based on the model strategy outlined in the appraisal report and drawing on relevant local experiences;

- examine the potential and methods for involving and training local self-help groups and their leaders as well as other community members (like e.g. chiefs, sub-chiefs and teachers) in various project activities, the possibility of utilising existing "mwethya" groups should be explored;
- review district extension practices and the requirements, if any, for changes to be incorporated into the project;
- identify the most pressing training needs for project staff and relevant target community members for the technical project components, and propose initiatives to be undertaken during the first year of implementation;
- identify and prepare the most appropriate training and communication methodologies aimed at various target groups and implemented by different Programme staff categories;
- identify the required training and communication materials and if found necessary prepare TOR for the production of such material including implementation manuals for all sectoral activities of the programme incl. cross sectoral activities;
- prepare job descriptions and recruitment advertisements for training coordinators and assistants;
- plan training and mobilization activities to be undertaken during the first year;
- prepare a detailed budget for the first year of operation;
- prepare an outline Plan op for the remaining project period.

Survey and Monitoring

- review relevant survey data available, e.g. from USAID Kitui ASAL programme, UNICEF and from the livestock development study;
- prepare terms of reference for the proposed baseline study;
- prepare guidelines and implementation schedule for catchment area surveys to be conducted as the first activity in the geographical progression of the Programme based on which the details of implementation of sectoral and mobilization activities can be planned;
- examine the priorities for data collection for monitoring and evaluation purposes, with special attention to differences between socio-economic sub-groups and to the complementarity of inputs and outputs between sectors;
- propose self-monitoring procedures for progress of activities within the various project components, with special attention to interrelationships between sectors;

- identify any other survey activities to be undertaken (e.g. investigate ethno-veterinary knowledge) during the first year of operation and indicate the role of target community members in these;
- prepare job description and recruitment advertisements for the survey assistants;
- prepare a detailed Plan Op for the first year of operation;
- prepare an outline Plan Op for the remaining project period.

Water Development

- identify small-scale water structures to be rehabilitated or constructed during the first year, concentrating on projects started during the former Kitui ASAL Programme;
- prepare for establishment of ASAL water units in MOWD and MDA and the necessary facilities at divisional level;
- determine the need for improved catchment protection around the most promising springs and develop a strategy to secure its establishment;
- prepare an implementation strategy for the different types of water structures following the Programme Strategy for local participation;
- prepare a detailed Plan Op for the first year of operation;
- prepare an outline Plan Op for the remaining project period.

Soil Conservation and Agriculture

- define the methods and techniques to be adopted and their relationship to other crop, forestry and livestock production systems;
- identify the geographical areas (subcatchment) for intervention and their sequence of implementation including a plan for the progressive deployment of the extension staff (TAs) of the MDA;
- in conjunction with the Programme's mobilization and training strategies and its geographical progression strategy determine the need for reorientation/changes in the agricultural extension service;
- identify the need and method for research and trials in crops and improved agricultural practices;
- specify the involvement of MDA in agroforestry activities (including the nurseries and the role of extension service) and prepare an agroforestry implementation strategy based on collaboration with or complementarity to the forestry component (Forestry Department);
- prepare a detailed work plan and budget for the first year of implementation;

- prepare an outline Plan Op for the remaining period.

Forestry

- incorporate findings of the Danida forestry mission (1988);
- specify forest areas for gazetting;
- propose a strategy and plan for forest conservation in non-gazetted areas taking into account the need for local participation;
- identify nurseries to be assisted or established and sites for field trials to be established during the first year of operation;
- prepare an implementation strategy for agroforestry activities based on collaboration with the agriculture component/MOA;
- prepare a detailed work plan and budget for the first year of implementation;
- prepare an outline Plan Op for the remaining project period.

Livestock

- review the recommendations of the livestock sector study and incorporate them in the programme and budget for the project;
- examine the specific needs to relate the livestock development component to water and crop development and conservation aspects;
- prepare a detailed work plan and budget for the first year of implementation;
- prepare an outline Plan Op for the remaining project period;

Physical Works etc.

- prepare tender materials and estimates for construction of buildings (to be constructed directly by the Programme/Danida);
- prepare orders for procurement of equipment to be purchased by Danida under direct funding.

Project Management Unit, Administration and Finance

- define the powers, responsibilities and relationships of the Project Management Unit (PMU) to the implementing ministries, the District Development Committee (DDC) and the District Executive Committee (DEC) and the District Executive Committee (DEC);

- set out the agreed internal administrative procedures for the PMU;
 - prepare job descriptions and recruitment advertisements for administrative staff;
 - examine technical assistance needs and prepare a staff organogram covering long and short-term assignments;
 - determine PMU's need for office equipment including computer capacity;
 - prepare terms of reference for a study of district management capacities and constraints;
 - define appropriate procedures for disbursement of funds, local and international procurement and the financial administration of the project with reference to such aspects as:
 - annual programming (in the form of a detailed Plan of Implementation) and budgeting
 - inclusion of the project in the development budget estimates
 - coordination between Danida and GOK in budgetary planning and programming;
 - define appropriate procedures for financial and operational reporting and the auditing of accounts;
 - propose TOR for annual GOK/Danida review of the programme to be coordinated with the reporting, budgetary planning and programming of the Programme;
 - prepare a work plan and detailed budget for the first year of operation;
 - prepare an outline Plan Op for the remaining project period.
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Annex B

Logical Framework

PROJECT DESCRIPTION	MEASURES OF ACHIEVEMENT	SOURCES OF INFORMATION	KEY EXTERNAL ASSUMPTIONS, RISKS & CONDITIONS
<u>Long-term Objectives</u>			
Regeneration and sustainable utilization of natural resources: water, soils and vegetation.	Improved dry season water availability, reduction of soil erosion, increased vegetation cover and economic yield.	Remote sensing of plant biomass, field terraces; measurement of stream discharges and sediment load; crop yields and livestock production parameters over time.	Current rates of population increase will decline. Long-term and sustained commitment of GOK and Danida to remedial actions. Administrative continuity and stability within District and economic and political stability in Kenya. Proper functioning of land regulatory processes.
Build strong, self-reliant local institutions.	Active public support for and participation in self help initiatives and less dependence on government support. Number of successfully completed and maintained projects; active and functional groups.	Mid-term and end of Phase I evaluation.	Genuine, sustained commitment of GOK to District Focus; GOK administration responsive to needs and aspirations of local communities.
<u>Immediate Objectives</u>			
<u>PMU</u>			
To provide the administrative support to the District authorities necessary to plan, coordinate and implement an integrated development programme.	Implementation of KIDP in accordance with District Focus policies and procedures, with its objectives and planned physical and financial targets.	Quarterly reports from PMU and reports of annual review mission; annual audit of programme accounts.	KIDP organisation and management procedures adequately designed and implemented; PMU staff positions filled promptly and competently; cooperation from departments and District Administration.
<u>CETS:</u>			
To facilitate the participation of the community in the planning, implementation and evaluation of the programme; to support and strengthen existing community-based groups to participate in KIDP activities; to obtain the active involvement of the resource-poor members of the community.	CETS active in the field and at the grass roots level, sub-locations, etc. organising meetings, workshops, etc.; working with through SDAs; collaborating and involving specialist and frontline staff of the line ministries and obtaining cooperation in joint action (crops, pastures, forestry and water conservation).	SMS survey of participants of training sessions to assess impact of training sessions on behaviour; no. of groups in which interest is sustained. Annual and quarterly reports.	CETS staff positions filled promptly and competently. Line ministries, DSDD & SDAs, and District administration willingly cooperate with CETS.
Coordination of KIDP professional staff training and career development	Better trained and motivated staff.	Quarterly reports of CETS; assessment by annual review mission. SMS survey of line departments, participants/beneficiaries	Line ministries cooperate, etc.

PROJECT DESCRIPTION	MEASURES OF ACHIEVEMENT	SOURCES OF INFORMATION	KEY EXTERNAL ASSUMPTIONS, RISKS & CONDITIONS
<u>Soil Conservation</u>			
To help farmers to develop sustainable cropping systems by the adoption of techniques which will reduce soil, water and plant nutrient losses from their land.	Extension agents active in the field, working with groups, knowledgeable about the work to be undertaken and how it is to be done. Farmers better informed, implement range of appropriate conservation measures and maintain the structures, etc.	Monthly, quarterly and annual reports. SCD, etc.	Adequate technical supervision & back up from SWCB of the MOA; regular training sessions for divisional staff at provincial level; adequate logistic support for field staff - transport and inputs for demonstrations, etc.
To improve the capacity of the MOA field <u>extension service</u> to respond to the needs of farmers for advice and assistance with conservation farming.	Regular training and visit sessions, well attended by extension staff, contact farmers and followers. Farmers better informed, etc.	Surveys to determine if the farmers found the advice to be useful; if it resulted in better yields; if TAs working conditions have improved.	
<u>Water Conservation</u>			
To help farmers build and maintain simple, local water conservation structures for domestic and livestock uses.	Recommended structures are built and maintained by local communities; improved availability and quality of local water supplies.	SMS assessment of attitudes of local people to the structures completed and the degree of local involvement in construction and maintenance.	Establishment of a viable system for sub-contracting and supervising artisans; correct use of KIDP material and equipment for the planned purposes. Effective operation of the WPCU under the Senior Water Engineer and the deployment of Assistant Construction Supervisors at the Divisional level.
<u>Animal Health</u> : To reduce the incidence of animal disease within the District.	Vet. staff execute vaccination programme and follow-up disease outbreak reports. Stock mortality improves.	Quarterly reports of Div. VOs. Comparison with disease prevalence survey.	Vaccine available; logistic support forthcoming.
To improve the capacity of the <u>Livestock Production Dept.</u> to respond to the needs of farmers for advice and assistance.	Livestock extension staff active in the field, working with groups, knowing what has to be done. Farmers better informed and adopting advice.	Monthly reports of field staff. Quarterly and annual reports of Department; Surveys of farmers by SMS to determine farmers attitudes to the assistance received.	Recruitment of LDO and effective management and leadership by DLPO.
<u>Forestry</u>			
To conserve the catchment areas of perennial springs.	Effective regulation of gazetted reserves and progress with gazetteement of other catchments.	Quarterly and annual reports from Forests Dept. and SMS field verification of land use in gazetted areas.	Political commitment and popular support for enforcement of forest ordinances.
Extension: production & distribution of seedlings from RAES nurseries.	Nurseries operating and supplying seedlings to farmers; increasing participation in tree planting and demand for planting material.	Quarterly and annual reports from forests dept. and SMS field verification.	Rationalisation of tree nurseries in the District under the Forests Dept.

PROJECT DESCRIPTION	MEASURES OF ACHIEVEMENT	SOURCES OF INFORMATION	KEY EXTERNAL ASSUMPTIONS, RISKS & CONDITIONS												
<u>OUTPUTS</u>															
<u>PMU</u>															
Establishment of a functioning programme management organisation and <u>Survey & Monitoring Section.</u>	Timely preparation of work-plans and budgets for each component; adherence to reporting routines (see PlanOp paras 3.16-25); effective management of programme account and timely disbursement against certified accounting documents; establishment of data base and S&M Programme: baseline study, RRAs, ongoing progress and impact monitoring routines (see PlanOp paras. 4.12-35).	Quarterly progress reports, annual programming mission, auditors reports.	Recruitment of PMU staff of required calibre and commitment.												
<u>CETS</u>															
Staff training	CETS keep updated staff lists, review job descriptions, develop training record system, organise subject-specific courses, keep up-to-date information on available courses.	Self monitoring: quarterly reports; numbers of courses organised, fellowships advertised and arranged. annual review mission assessment of progress over reporting period: courses arranged, fellowships, etc.													
Community education and mobilisation	Year 1 activities (see PlanOp paras. 5.22-23) Initial orientation and training of frontline staff; training of SDAs; workshops for Dev. Committees; group census; etc.	CETS quarterly reports; nos. of meetings, staff involved, etc.													
<u>Soil Conservation</u>	Area covered by division, nos. of catchments, farmers involved, area covered, tools distributed (see PlanOp para. 6.20). Nurseries: seedlings distributed.	Self monitoring: reports from TAs, Div.SCOs, SCO, DAO, etc. S&M: independent field checks.													
<u>Crop Development</u>	Demonstrations and field days organised by extension staff; divisional farms for seed-bulking, ox-training etc. (see PlanOp, para 6.31 for physical targets).	Self monitoring: reports from TAs, Div.SCOs, SCO, DAO, etc. S&M: independent field checks.													
<u>Water Conservation and Rural Water Supply</u>	<table border="0"> <tr> <td></td> <td>no. cua/d</td> <td></td> </tr> <tr> <td>Rehabilitation</td> <td>61</td> <td>313.5</td> </tr> <tr> <td>New construction</td> <td>177</td> <td>1380</td> </tr> <tr> <td>Subcontracted</td> <td>230</td> <td>5100</td> </tr> </table> (See PlanOp Appendixes 6E & 7A, Vol. II p. 37 & p. 57)		no. cua/d		Rehabilitation	61	313.5	New construction	177	1380	Subcontracted	230	5100	Self monitoring by MOA and MOWD. Monthly and quarterly reports. Independent field checks by S&M and WPCU.	
	no. cua/d														
Rehabilitation	61	313.5													
New construction	177	1380													
Subcontracted	230	5100													

PROJECT DESCRIPTION	MEASURES OF ACHIEVEMENT	SOURCES OF INFORMATION	KEY EXTERNAL ASSUMPTIONS, RISKS & CONDITIONS
<u>Animal Health</u>	Survey of Disease Incidence in Kitui District Stock vaccinated, H&S, Disease outbreaks contained (see PlanOp, paras. 8.18-24 for planned outputs).	Consultant's report and findings. Self monitoring: Reports from divisional and district office; S&M verification surveys.	
<u>Livestock Production Development</u>	Range management divisional work plans to be prepared PY1; animal production; project proposals on bees and goats PY1; District Marketing Survey.	Project documents from DLPO and his staff.	
<u>Forestry</u>	Protect 8 gazetted hills Gazette 7 surveyed hills Survey and gazette 18 hills Rehabilitation of 2 RAES nurseries in Mwingi and Central.	Quarterly and annual reports of Forests Dept. Independent S&M verification.	

INPUTSBuildings:

		no.	Sq.m
Construction of offices, labs, etc	PMU	12	352
	CETS	4	106
	MOA	3	66
	MOLD	6	204
	MENR	3	84
Stores	MOA	3	180
Conference/training rooms	CETS	4	224
Housing	MOLD	6	186
	PMU	3	300
Rondavels at field centres	PMU	18	360

<u>Vehicles and Construction Equipment</u>		89/90	PY1	PY2	PY3	PY4	PY5
4WD Station Wagon LWB	PMU	3					3
	CETS	1	1			1	1
	MOA		4				4
	MOLD		1				1
4WD SWB	PMU	1					1
	WPCU	1					1
	SMS	1					1
Hardtop SWB	WPCU		2				2

<u>Vehicles and Construction Equipment</u> (cont.)		89/90	PY1	PY2	PY3	PY4	PY5
4WD Pick-up	MOA		2				2
	MOWD		3	2			3
	MOLD		5	6			6
	MENR		1	1			1
Saloon	PMU	1					1
Lorry (3.5T)	MOA		2	1			2
	MOWD		1				1
Motorcycles	PMU	4					4
	WPCU	4					4
	CETS		4				4
	SMS	4					4
	MOA		33	30	2		33
	MOWD		4	2			4
	MOLD		22	15	6		22
	MENR		5				5
Bicycles	CETS	4	13				17
	MOA		88	30			88
	MOLD		56	6			56
	MENR			19			
Tractor and Trailer	MOA		4	4			
	MOWD		2	2			
Tractor	MENR		1		1		1
Concrete Mixer	MOA		2	2			
	MOWD		2	2			
Water Bowser	MOA		2	2			
	MOWD		2	2			
Uni-ports	MOA			24			
	MOWD			16			
Water pumps	MOA		2	2			
	MOWD		2	2			
Handpumps	MOA			20	40	40	40
Hand drilling rig	MOA			3			
	MOWD		2	2			

Operational Support

Building Maintenance	Ksh 1.1m over Programme period
Equipment & maintenance, office operating costs	Ksh 7.8m over Programme period
Vehicle Operating Costs (incl. bicycle allowances and running costs for construction equipment)	Ksh 48.1m " " "
Materials and tools (including veterinary equipment)	Ksh 45.4 over Programme period

Per diems and field allowances Ksh 21.4m over Programme period

<u>Technical Assistance</u>	
	Programme Coordinator# 5.5 years
	Senior Admin. Officer@ 5.5 years
# Danida Technical Asst.	Programme Accountant@ 5.5 years
@ Kenyan Expert	Computer Officer@ 5.5 years
@@ Part-time local	S&M Officer@ 5 years
consultant	S&M Adviser# 5.5 years
	Snr Training Officer@ 5.5 years
	Snr Water Engineer# 5.5 years
	Site Survey Adviser@@
	Livestock Dev. Officer@ 5.5 years

NB: the above do not include purely local staff and GOK employees who form an essential part of the Programme and are complemented by Technical Assistance inputs. See Annex 6 for more detail on Programme Hired Staff.

Funding will also include provision for special studies and subcontracting of work.

Annex C
Building Construction
Programme

SCHEDULE OF BUILDINGS - Start-up Period and Programme Year One

Finalised cost estimate by Carl Bro., dated 29/5/89.

A. KITUI DISTRICT HEADQUARTERS

	Ksh
1. Project Management Unit and Conference Hall	
5 Offices	
3 Front Offices	
1 Toilet	4 x 32 = 128m ²
Conference Hall	7 x 8 = 56m ² 676,533
2. KIDP Water Office	
2 Offices	
1 Front Office	
1 Store	4 x 15 = 60m ² 221,694
3. Staff Houses (3 Bedroomed)	
3 Nos.	3 x 100m ² 1,890,000 ^[1]
4. Fencing	(allow 200 LM) 100,000
<u>Subtotal Kitui</u>	<u>2,888,227</u>

[1] Cost estimate dated 25/05/89.

Ksh

B. KYUSO DIVISION**1. KIDP Facilities****a) KIDP Project Office and Conference Hall**

5 Offices		
3 Front Offices		
2 Stores		
1 Toilet	4 x 38 = 152m ²	
Conference Hall	7 x 8 = 56m ²	822,000

b) KIDP Guesthouses

6 No. Rondavel (5.10)	6 x 20m ²	514,560
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c) Water Supply Materials Store

1 Building; 3 No. Stores	4 x 12 = 48m ²	185,275
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d) Fencing	200LM	100,000
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2. Livestock Development Centre**a) Staff Housing**

2 No. Rondavels ^[2] (6.90)	2 x 31m ²	293,822
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b) MOLD Offices

2 No. Offices		
1 No. Microlab.		
1 No. Store		
1 No. Toilet	4 x 17 = 68m ²	245,412

c) Farmers' Classroom

Open shed with stub walls	7 x 8 = 56m ²	175,000
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d) Livestock Handling Facilities

1 No. Cattle-crush		25,000
1 No. Spray-race		

e) Fencing	200LM	100,000
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Subtotal Kyuso 2,461,069

[2] It has been agreed that staff housing for the livestock development centres will not be rondavels but of a standard PWD house design of similar size; this specification will therefore need to be updated.

Ksh

C. MUTITO DIVISION1. KIDP Facilities

a) KIDP Project Office and Conference Hall		
5 Offices		
3 Front Offices		
2 Stores		
1 Toilet	4 x 38 = 152m ²	
Conference Hall	7 x 8 = 56m ²	797,414
b) KIDP Guesthouses		
6 No. Rondavels (5.10)	5 x 20m ²	501,000
c) Water Supply Materials Store		
1 Building; 3 No. Stores	4 x 12 = 48m ²	182,635
d) Fencing	200LM	100,000

2. Livestock Development Centre

a) Staff Housing		
2 No. Rondavels ^[3] (6.90)	2 x 31m ²	290,583
b) MOLD Offices		
2 No. Offices		
1 No. Microlab.		
1 No. Store		
1 No. Toilet	4 x 17 = 68m ²	266,213
c) Farmers' Classroom		
Open shed with stub walls	7 x 8 = 56m ²	182,000
d) Livestock Handling Facilities		
1 No. Cattle-crush		
1 No. Spray-race		30,000
e) Fencing		100,000

Subtotal Mutito2,449,845

[3] See footnote 2.

Ksh

D. MWINGI DIVISION**1. KIDP Facilities****a) KIDP Project Office and Conference Hall**

5 Offices

3 Front Offices

2 Stores

1 Toilet

4 x 38 = 152m²

Conference Hall

7 x 8 = 56m²

788,559

b) Water Supply Materials Store1 Building; 3 No. Stores 4 x 12 = 48m²

178,675

c) Fencing

100,000

2. Livestock Development Centre**a) Staff Housing**2 No. Rondavels^[4] (6.90)2 x 31m²

242,292

b) MOLD Offices

2 No. Offices

1 No. Microlab.

1 No. Store

1 No. Toilet

4 x 17 = 68m²

264,343

c) Farmers' ClassroomOpen shed with stub walls 7 x 8 = 56m²

168,000

d) Livestock Handling Facilities

1 No. Cattle-crush

1 No. Spray-race

20,000

e) Fencing

100,000

Subtotal Mwingi**1,861,869**

[4] See footnote 2.

Summary of Finalised Cost Estimate

	Ksh
A. Kitui District HQ	
1. PMU and KIDP Offices	2,888,227 ^[5]
	<u>2,888,227</u>
B Kyuso Division	
1. KIDP Facilities	1,621,835
2. Livestock Development Centre	<u>839,234</u>
	2,461,069
C. Mutito Division	
1. KIDP Facilities	1,581,049
2. Livestock Development Centre	<u>868,796</u>
	2,449,845
D. Mwingi Division	
1. KIDP Facilities	1,067,234
2. Livestock Development Centre	<u>794,635</u>
	1,861,869
TOTAL A, B, C & D	9,661,010
Add 10% for Preliminaries/Contingencies	<u>966,101</u>
Estimated Grand Total:	<u>Ksh10,627,111</u>

[5] See Footnote 1.

KIDP - BREAKDOWN OF BUILDING COST ESTIMATES

COMMUNITY EDUCATION AND TRAINING

	size m ²	cost/m ²	cost '000Ksh
Kitui:			
Conference room	56	3.7	207.20
Office + half FO	22	3.7	81.40
Kyuso:			
Conference room	56	3.95	221.20
Office + FO	28	3.95	110.60
Mwingi:			
Conference room	56	3.8	212.80
Office + FO	28	3.8	106.40
Mutito:			
Conference room	56	3.8	212.80
Office + FO	28	3.8	106.40
Total cost CET			1258.80

MOA

Kyuso:			
Office + half FO	22	3.95	86.90
Store	12	3.95	47.40
Water Supply Mater'ls Store	48	3.9	185.30
Mwingi:			
Office + half FO	22	3.8	83.60
Store	12	3.8	45.60
Water Supply Mater'ls Store	48	3.7	178.67
Mutito:			
Office + half FO	22	3.8	83.60
Store	12	3.8	45.60
Water Supply Mater'ls Store	48	3.8	182.60
Total cost MOA			939.27

LIVESTOCK

Kyuso Livestock Devt Centre:			
Microlab, store, toilet, 2 offices	68	3.6	245.41
Farmers' classroom	56	3.1	175.00
Livestock handling facs.	-	-	25.00
Fencing (200 LM)	-	-	100.00
Staff housing (2)	62	4.7	293.82
Mwingi Livestock Devt. Centre:			
Microlab, store, toilet, 2 offices	68	3.9	264.34
Farmers' classroom	56	3.0	168.00
Livestock handling facs.	-	-	20.00
Fencing (200 LM)	-	-	100.00
Staff housing (2)	62	3.9	242.29
Mutito Livestock Devt Centre			
Microlab, store, toilet, 2 offices	68	3.9	266.21
Farmers' classroom	56	3.25	182.00
Livestock handling facs.	-	-	30.00
Fencing (200 LM)	-	-	100.00
Staff housing (2)	62	4.7	290.58
Total cost Livestock			2502.65

KIDP - BREAKDOWN OF BUILDING COST ESTIMATES (Cont.)

	size m ²	cost/m ²	cost '000Ksh
FORESTRY			
Kyuso:			
Office and store	28	3.95	110.60
Mwingi:			
Office and store	28	3.8	106.40
Mutito:			
Office and store	28	3.8	106.40
Total Forestry			323.40

PMU

Kitui:			
4 offices, 1 + 2 half FOs, toilets	106	3.7	392.20
Water office (2 offices, FO, store)	60	3.7	222.00
Fencing 100 LM	-	-	100.00
Staff housing (3 x 100m ²)	300	6.3	1890.00
Kyuso:			
2 offices, 1 + half FO, toilet	62	3.95	244.90
Guesthouses - 6 Rondavels	120	4.3	515.00
Fencing 100 LM	-	-	100.00
Mwingi:			
2 offices, 1 + half FO, toilet	62	3.8	235.60
Fencing	-	-	100.00
Mutito:			
2 offices, 1 + half FO, toilet	62	3.8	235.60
Guesthouses - 6 Rondavels	120	4.2	504.00
Fencing 100 LM	-	-	100.00
Total PMU			4639.30

SUMMARY OF COSTS

Community Ed. & Training	1258.80	
MOA	939.27	
Livestock	2502.65	
Forestry	323.40	
PMU	4639.30	
Total costs		9663.42

BREAKDOWN BY AREA

Kitui	2892.80	
Kyuso	2461.13	
Mwingi	1863.70	
Mutito	2445.79	
Total costs		9663.42

Note: figures given here differ slightly from those in the costings on the previous pages due to the effects of rounding.

Building Works

Tendering and Evaluation

Contractor for the Programme shall be appointed after competitive tendering by the District Tender Board. Selected contractors will be invited and prequalified. The criteria for selection will be:

- i) Registered with MOPW for the relevant category and with the District Tender Board.
- ii) Depth of experience in the operation area.
- iii) Adequate resources back-up.

The emphasis shall be on good local contractors.

The Form of Tender to be used is the East African Institute of Architects Standard Form of Contract, Without Quantities (July 1977 Edition) which is based on the British RIBA form.

The Building Engineer shall produce a Tender Report on the bids received and this will include:

- a) Price/Rates comparison.
- b) Adjustments of arithmetical errors and omissions.
- b) Compliance with other contractual requirements, e.g. Performance bonds, Insurance, Registration, etc.

The winning bid shall not necessarily be the lowest one; it will be the most reasonable price combined with adequate resource back-up.

It is recommended that one contractor be awarded the whole project with the four sites rather than splitting sites between two or more contractors. This is to reduce:

- 1) Mobilisation costs.
- 2) Administrative problems of running two or more contracts which are interlinked.

However, it must be accepted that one contractor might not be able to start all the sites simultaneously and the Programme of Works will have to be scrutinised carefully.

Supervision

It is recommended that one Clerk of Works be appointed who can shuttle between the sites.

Site Meetings should be held fortnightly for the first three months and subsequently monthly. They will be chaired by the Building Engineer.

Stage Payments

Payments will be made on progress of works. Valuations of works done shall be made by the Building Engineer at monthly intervals, and the Contractor shall pass this on to the PMU for payment. A retention of 10% of the amount certified shall be kept until the end of defects liability period (i.e. three months after the Practical Completion Date).

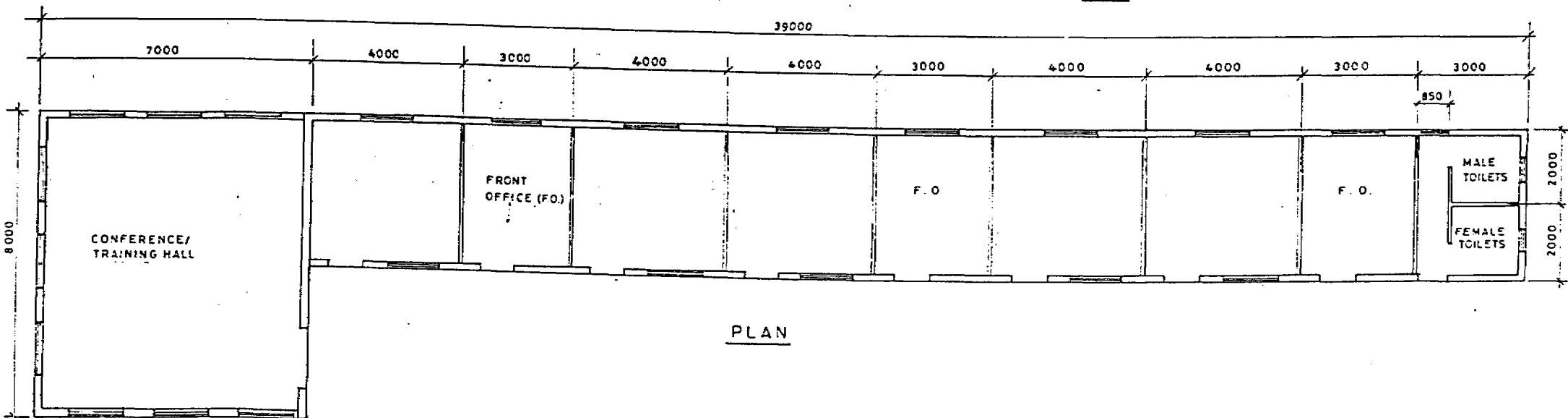
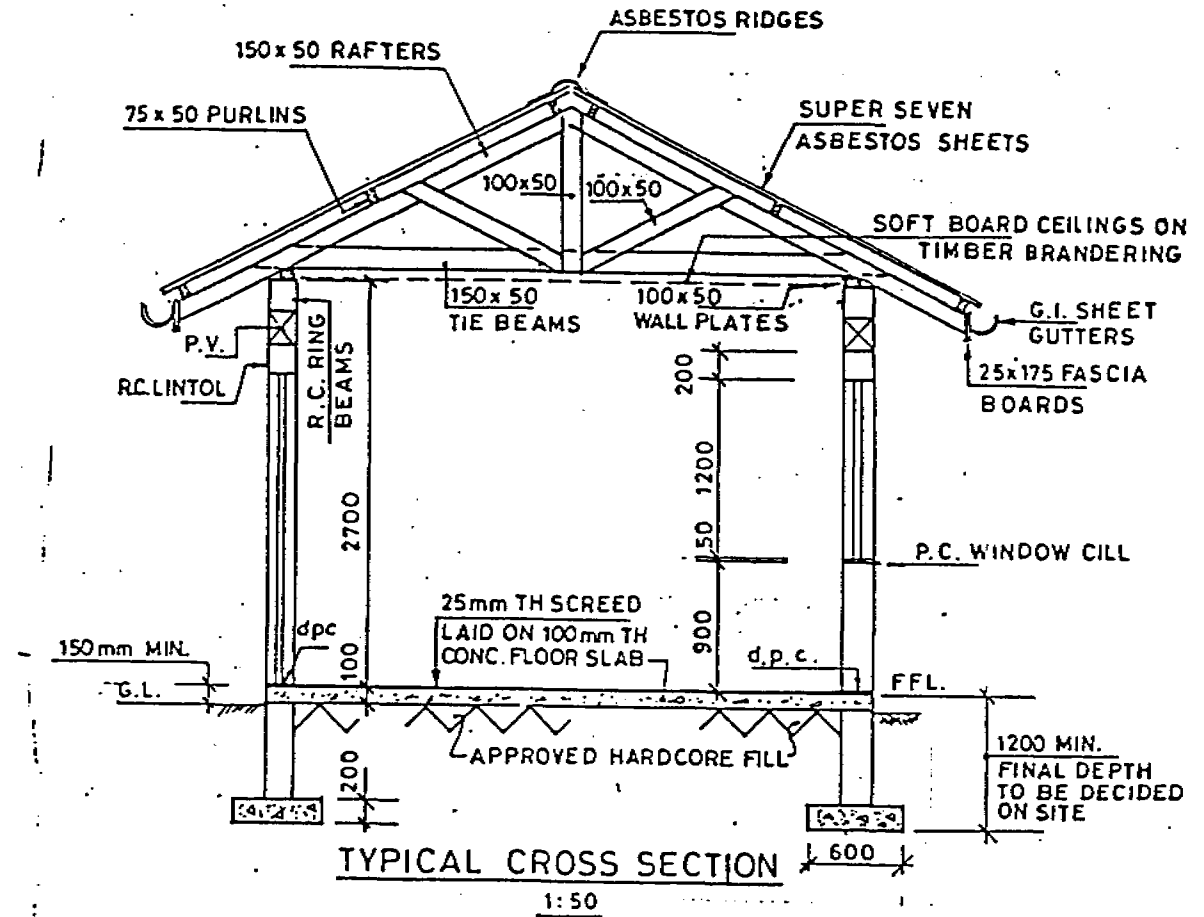
Payments for mobilisation shall be on priced items.

General Specification of Buildings

1. The General Specification of buildings shall conform to MOW Type 'D' lowland specifications unless noted otherwise.
2. Walling
All walls are to be concrete blockwork. External walls shall be 230mm thick and internal ones 100mm thick.
3. Roofing
Roof sheets are to be Simbarite 'Super 7' Asbestos Cement sheets. Purlin spacings shall be to Simbarite specifications.
4. False Ceiling
This shall be softboard type at least 12mm thick.
5. Plaster/Paintwork
Walls shall be treated with one coat plaster both externally and internally, followed by one undercoat and two finish coats.
6. Electrical
Internal electrical wiring will be provided with at least one fluorescent light (tube) per office and also one three-pin socket outlet per office.
7. Plumbing
Internal plumbing will be allowed including 400 gallon watertank, wash hand basin, Western-type toilet, piping etc.
8. Windows
These shall be steel framed as supplied by 'Ideal Casement' or similar approved and of minimum height 1200mm and minimum width 1200mm.
9. Doors
These shall be timber flush doors solid complete with frame, and mortice lock.
10. Concrete

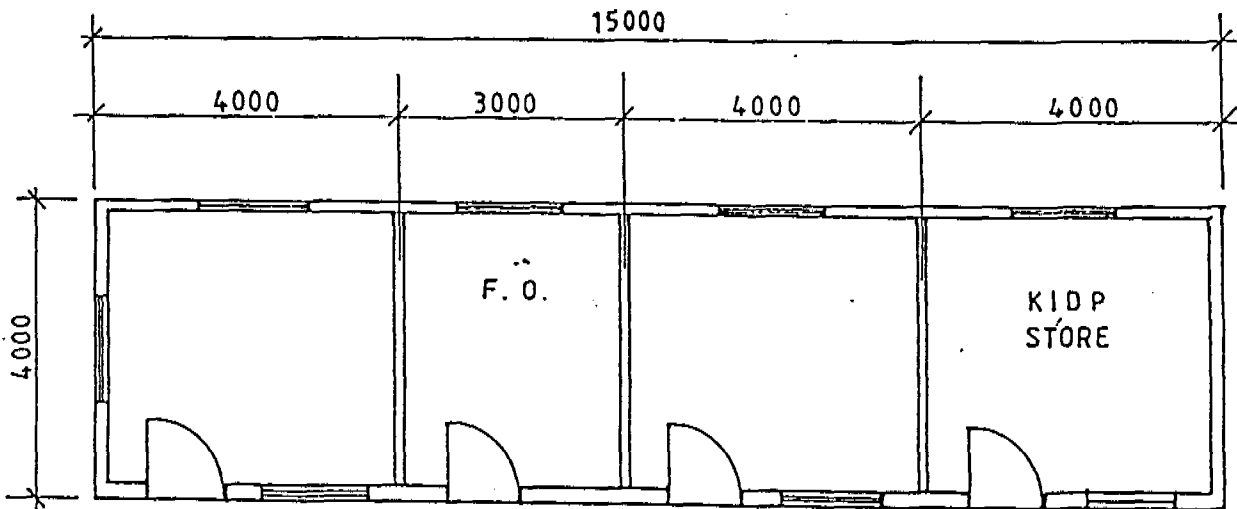
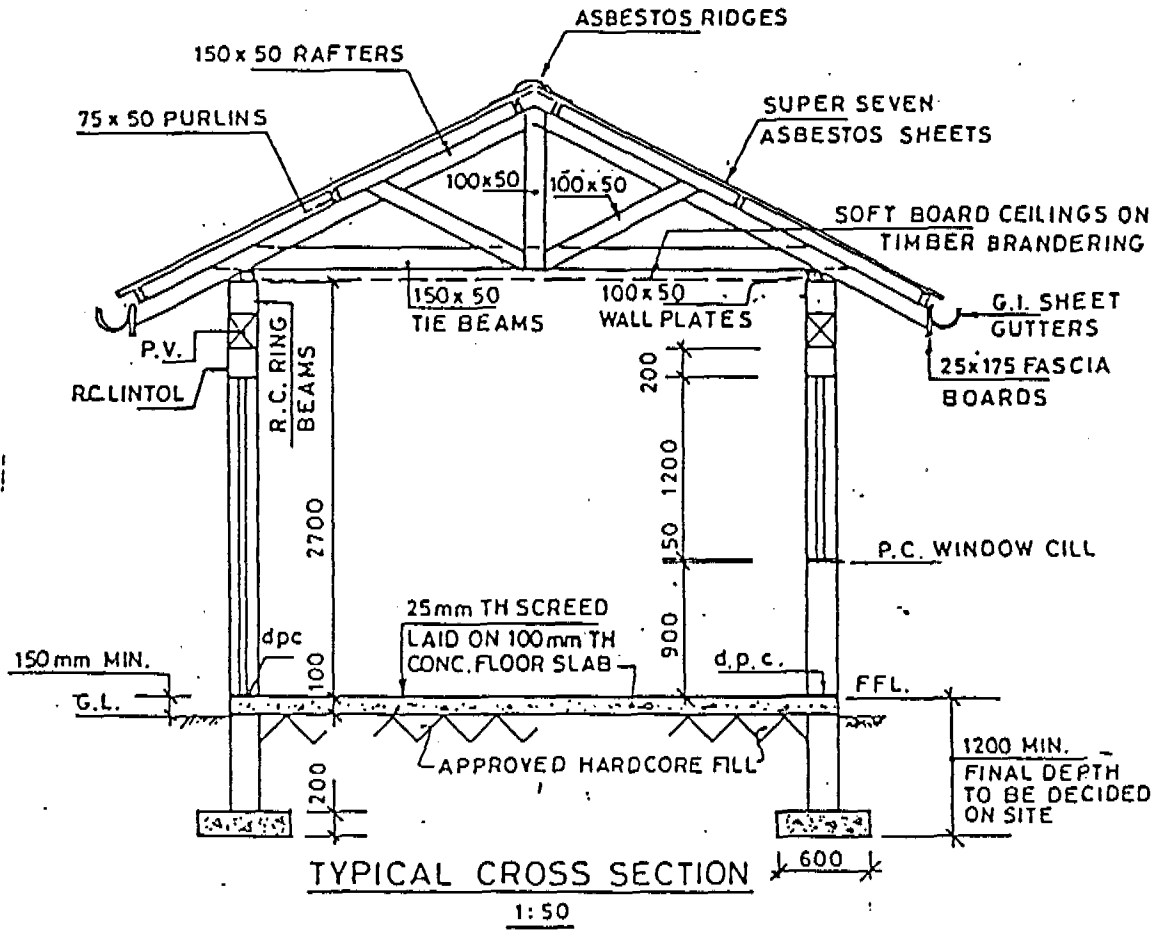
In floor slab	:	1:2:4 mix & BRC Mesh
Strip Footing	:	1:2:4 " 4Y10 Steel Longitudinally
Ring beam	:	1:2:4 " 2Y10T & B
11. Compliance
Buildings shall comply with relevant Bye-Laws and Building Code.
Plans of the proposed buildings are shown on the following pages.

KITUI DISTRICT HEADQUARTERS
PROJECT MANAGEMENT UNIT
OFFICES / CONFERENCE HALL ETC. 186 M²



KITUI DISTRICT HEADQUARTERS

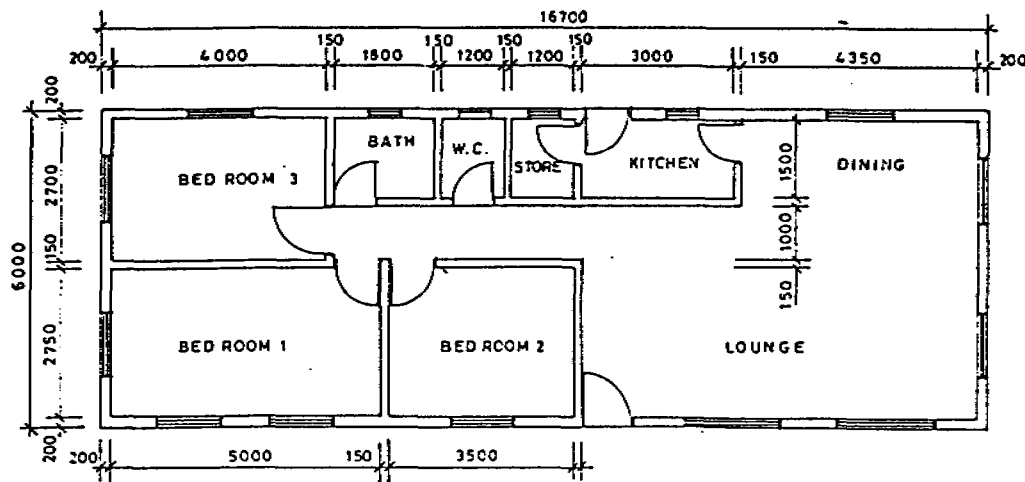
KIDP WATER OFFICE 4m x 15m. (60m²).



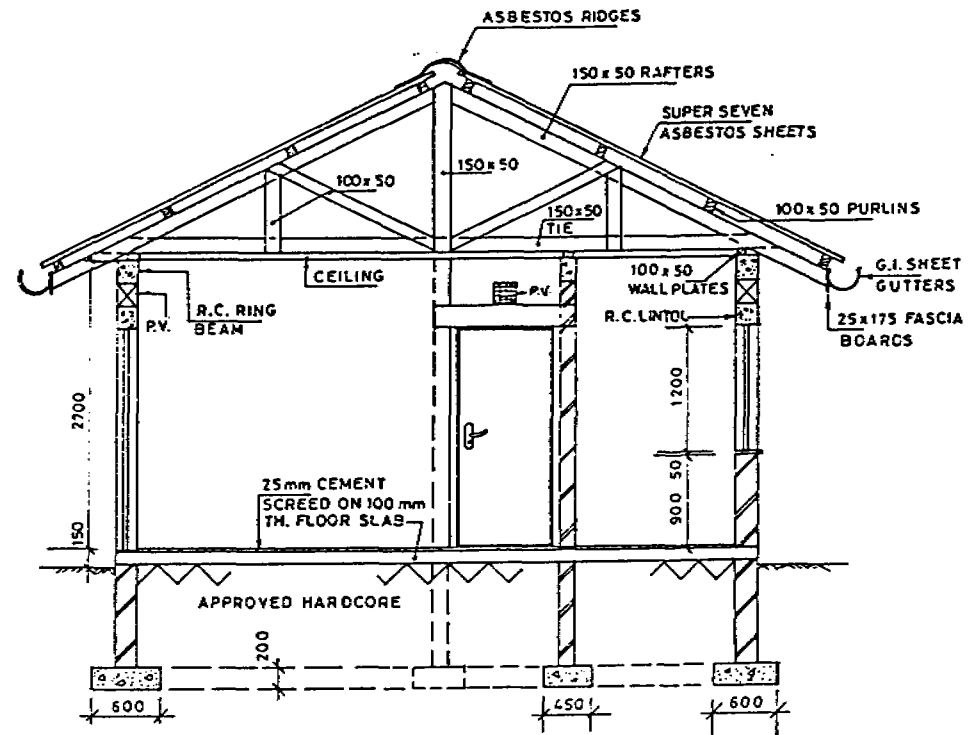
KITUI DISTRICT HQS.

3-BEDROOMED STAFF HOUSES FOR K.I.D.P.

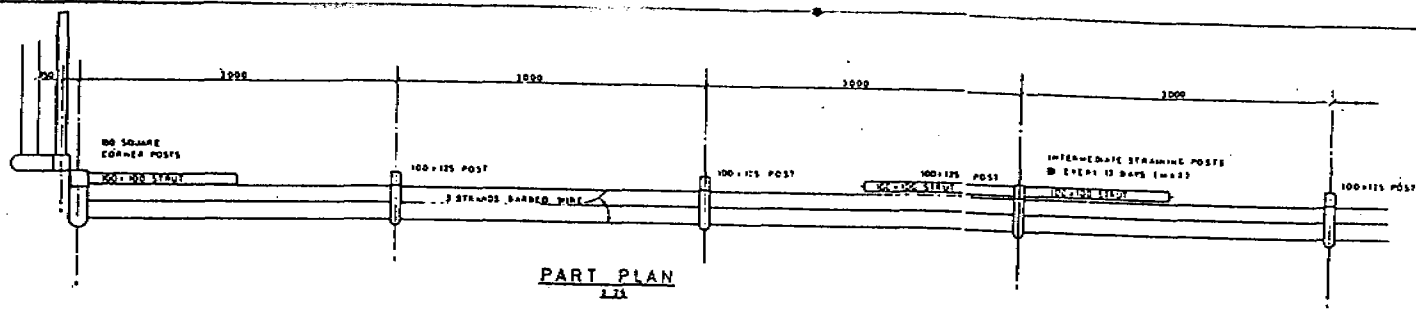
3 Nos. @ 100 M².



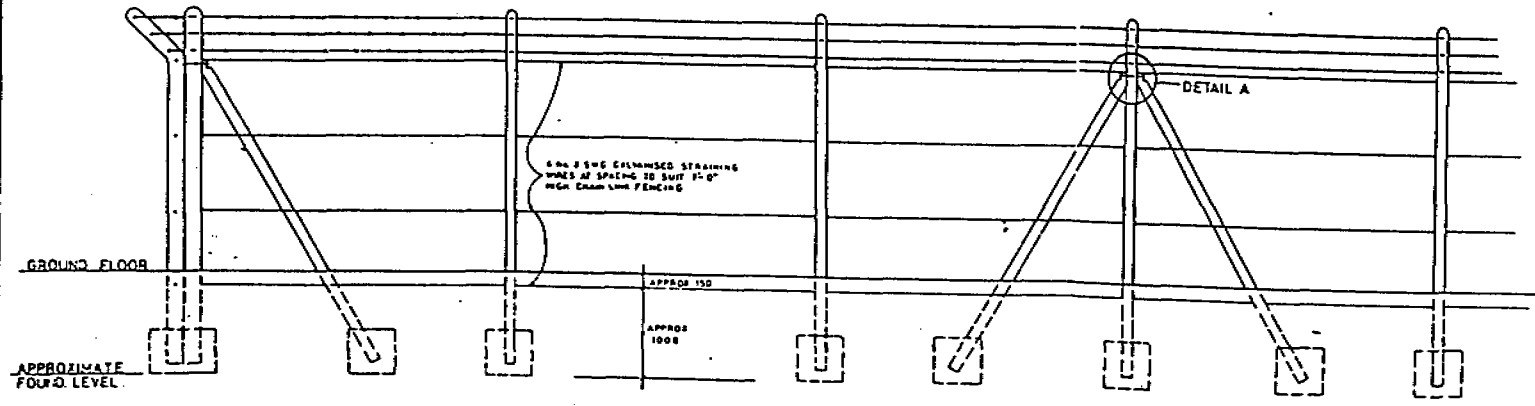
PLAN
STAFF HOUSE-2no



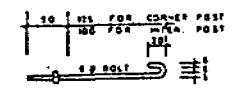
TYPICAL CROSS SECTION
1:50



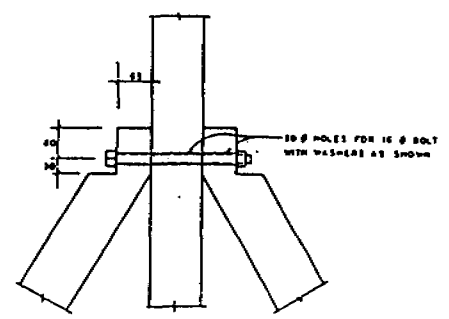
PART PLAN
1:24



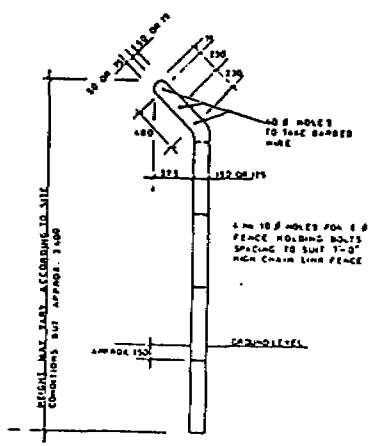
PART ELEVATION
1:24



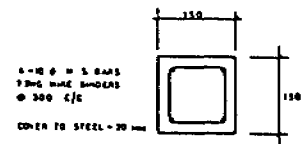
FENCE HOLDING BOLT
1:24



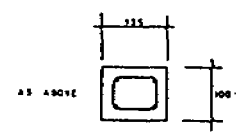
DETAIL A
1:11



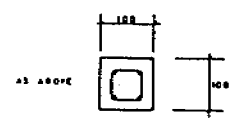
TYPICAL POST DETAILS
1:24



CORNER POST
1:24



INTERMEDIATE POST
1:24



STRUT REINFORCEMENT DETAILS
1:24

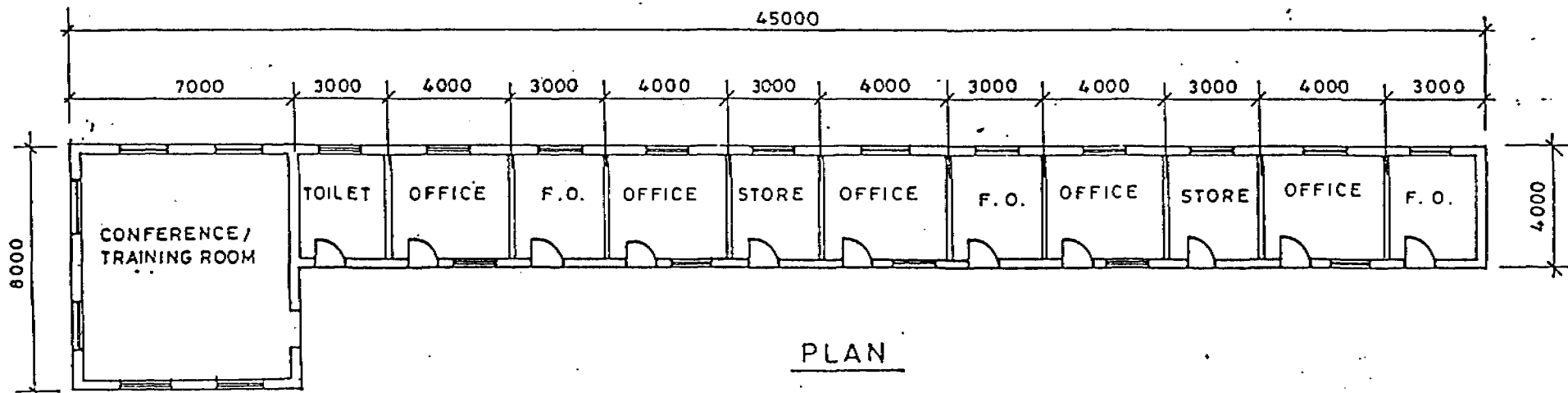
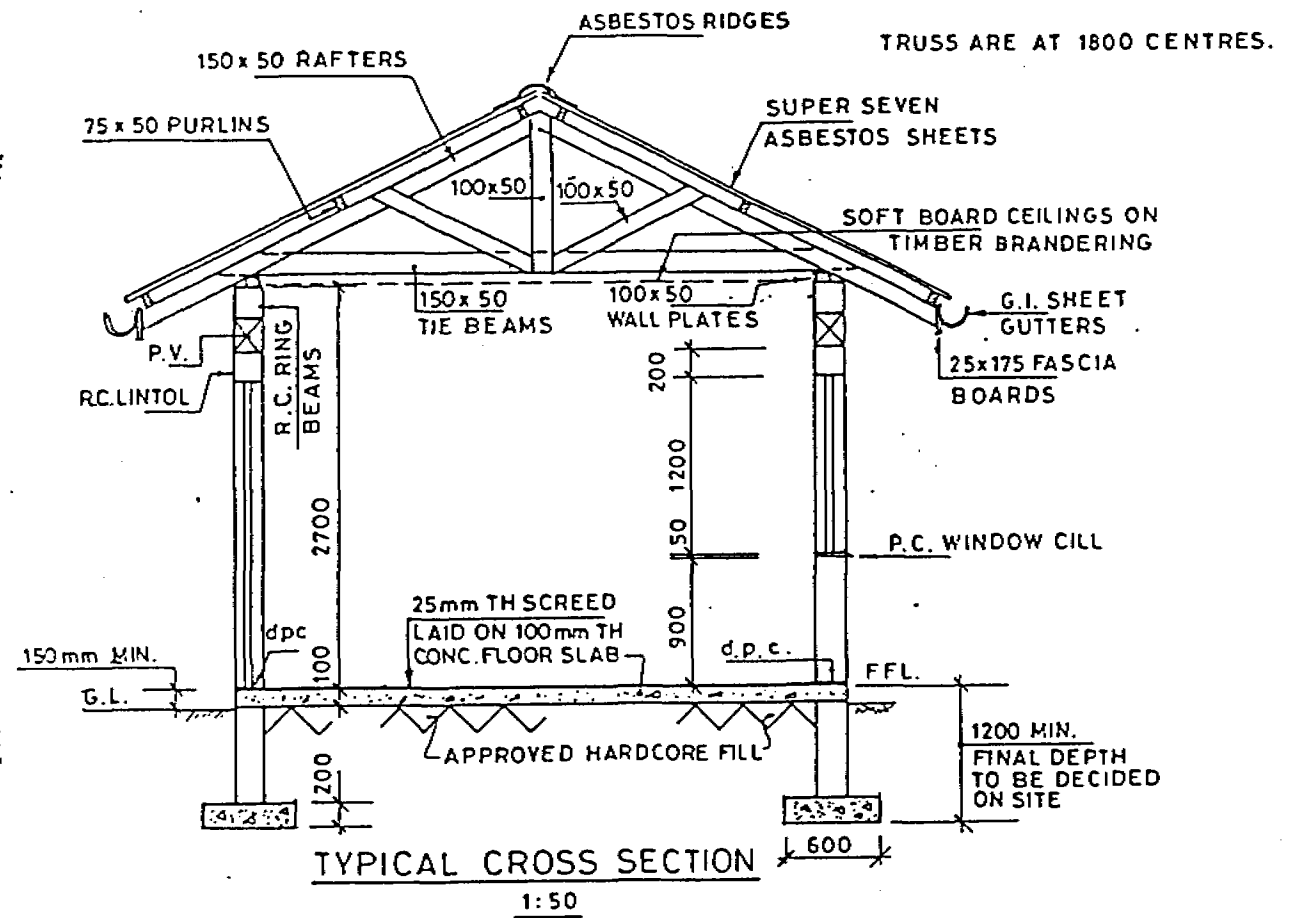
NOTES
ALL DIMENSIONS ARE IN MM
CONCRETE TO BE A 1:2:4 MIX TO SP 116
ALL STEEL TO BE GALVANIZED

NO.	DATE	BY	CHKD
CARL BRO KENYA CONSULTING ENGINEERS P.O. BOX 2000 NAIROBI KENYA P.O. BOX 41100 NAKURUA KENYA		P.O. BOX 2000 NAIROBI KENYA P.O. BOX 41100 NAKURUA KENYA	TEL: 254 20 274 2074 FAX: 254 20 274 2074
KITUI INTEGRATED DEVELOPMENT PROGRAM			
DETAILS TO P.C. CONC. FENCE POSTS			
SCALE	DATE	NO.	REV.
1:24	11/28/2014	2074	

KIDP PROJECT OFFICE
& CONFERENCE HALL (208 m²)

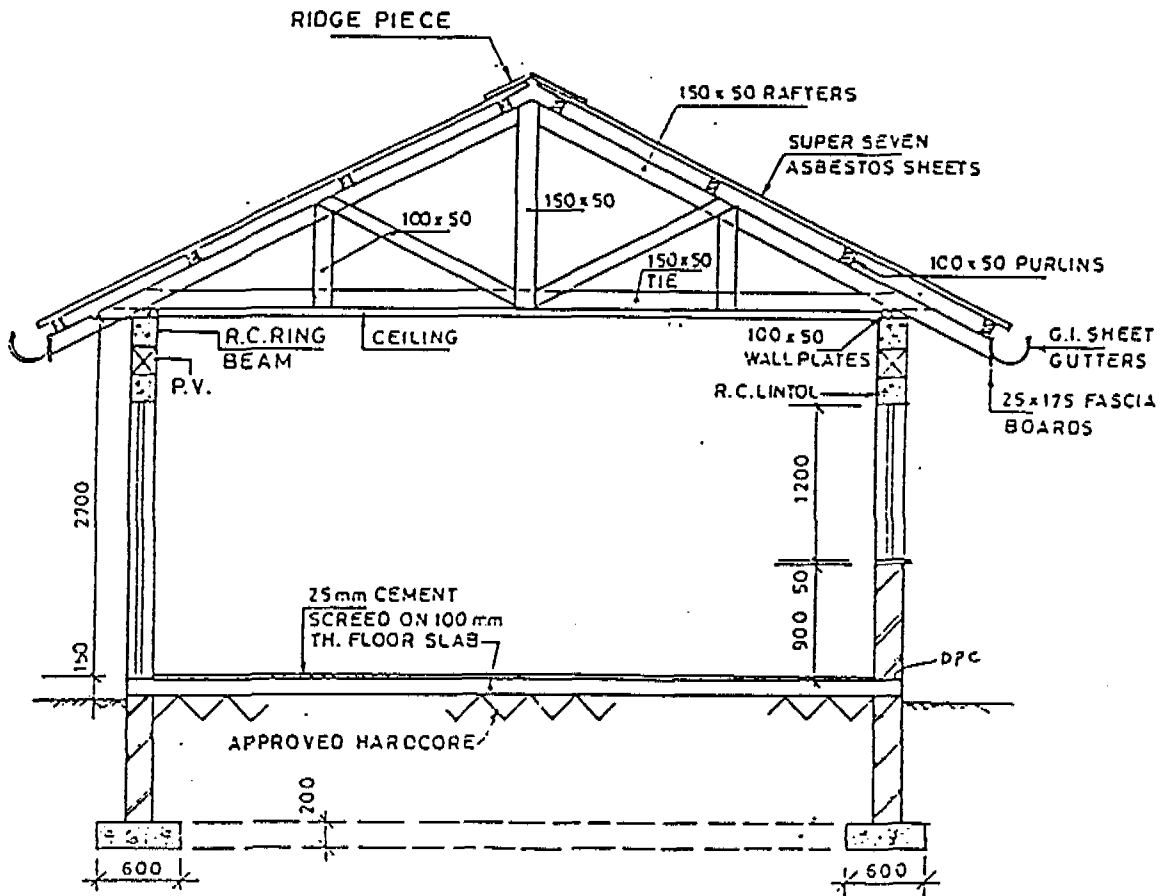
DIVISIONS

- KYUSO - 1 No.
- MUTITU - 1 No.
- MWINGI - 1 No.



KIDP GUEST HOUSES

BED ROOM, BATH & CLOSET HOUSE RONDAVEL (20 m²)

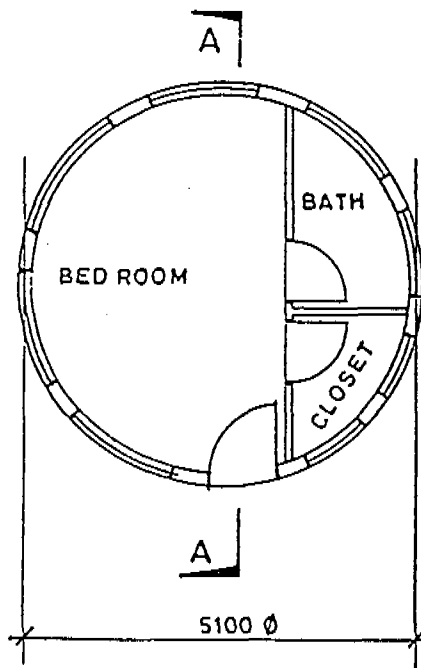


SECTION A - A

DIVISIONS

KYUSO - 4No.

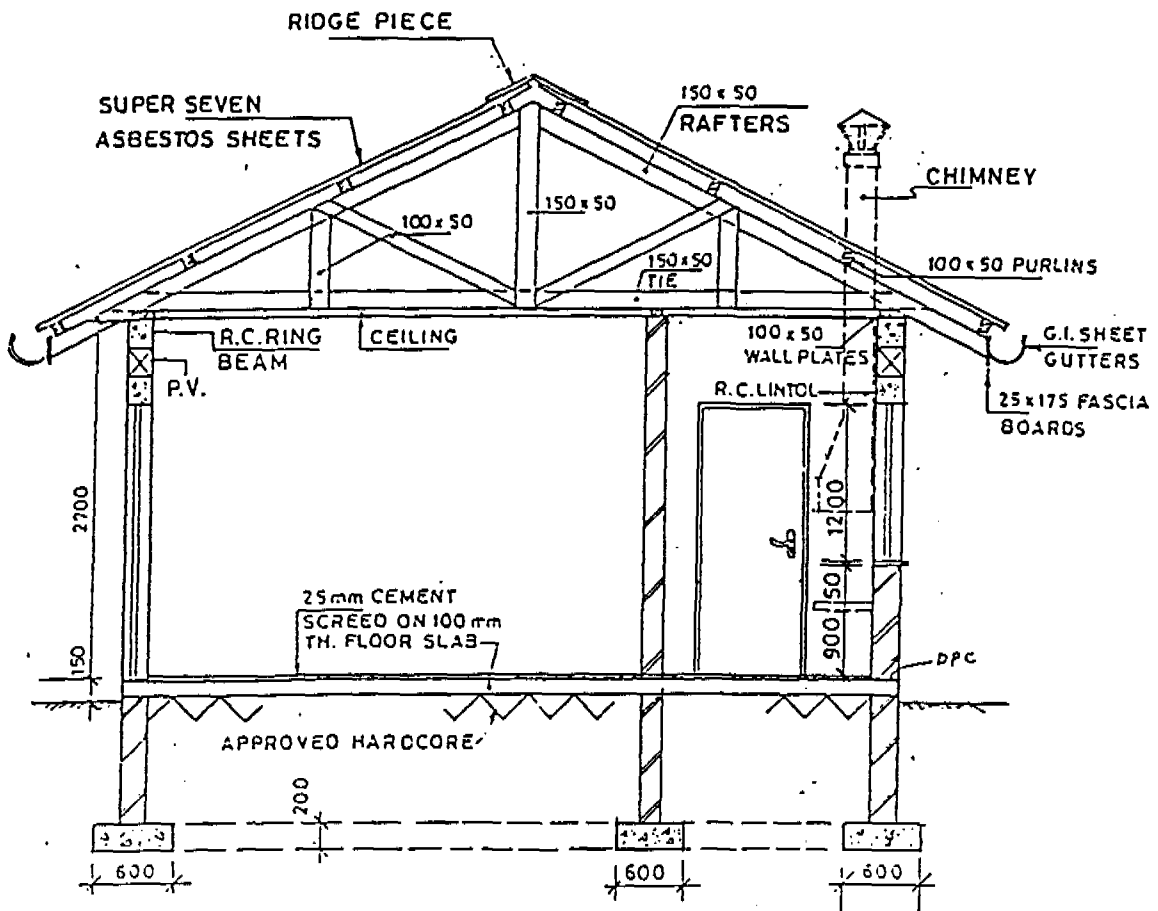
MUTITU - 4No.



PLAN

KIDP GUEST HOUSES

DINING/LIVING & KITCHEN HOUSE RONDAVEL (20 m²)

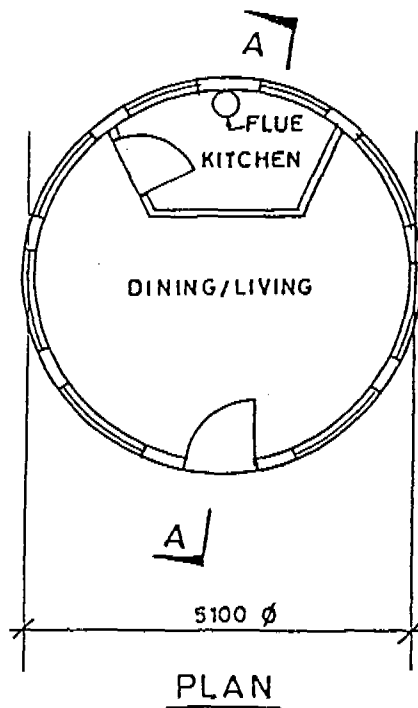


SECTION A - A

DIVISIONS

KYUSO - 1 No.

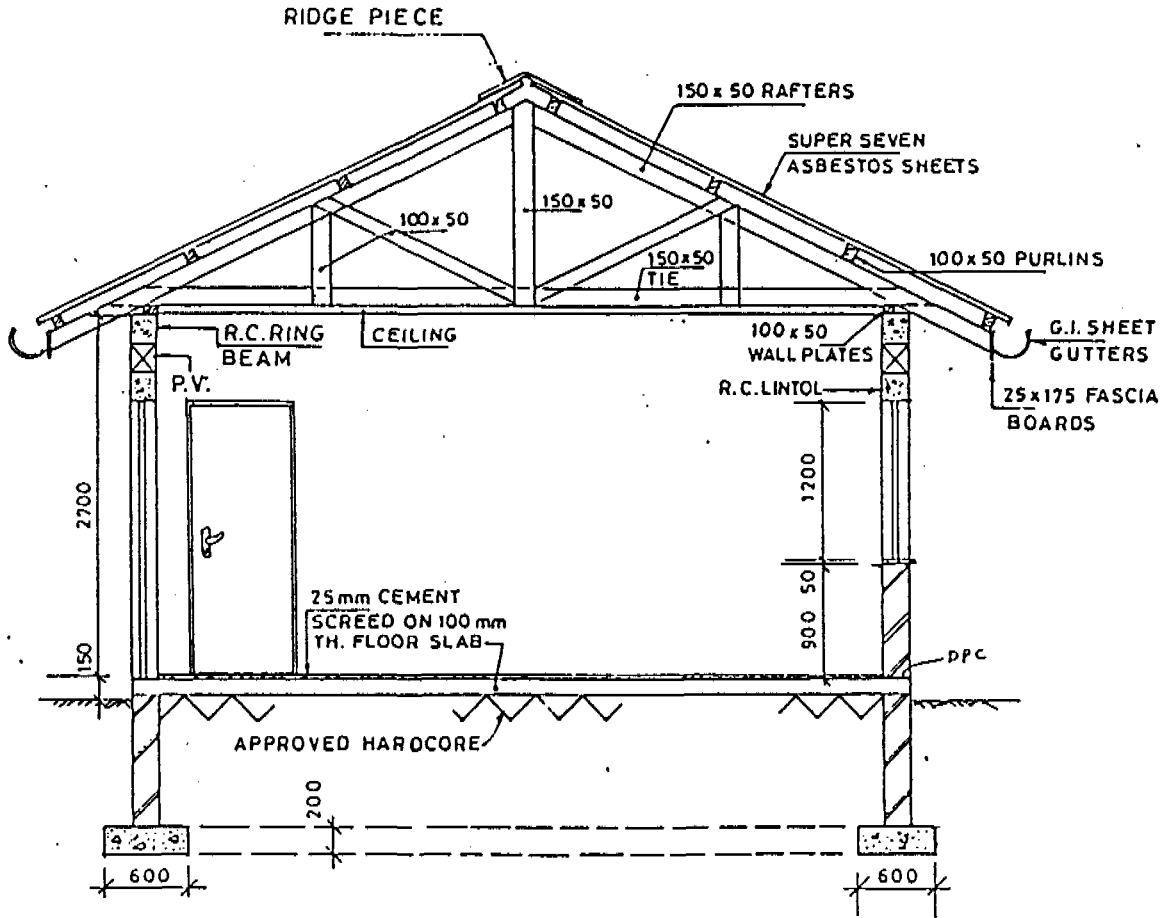
MUTITU - 1 No.



PLAN

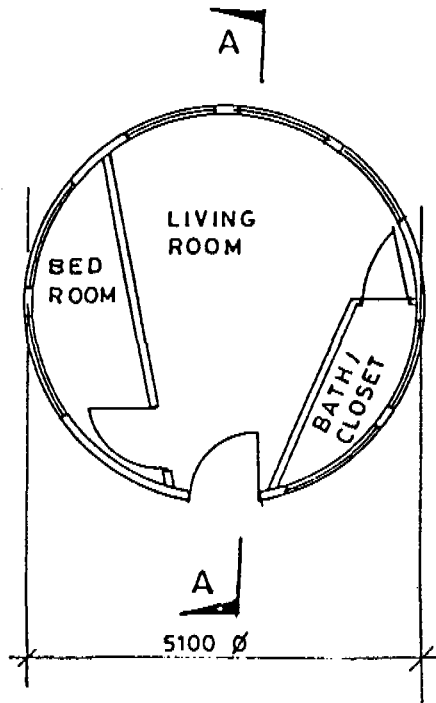
KIDP GUEST HOUSES

COOK / CARETAKER'S HOUSE RONDAVEL (20 m²).



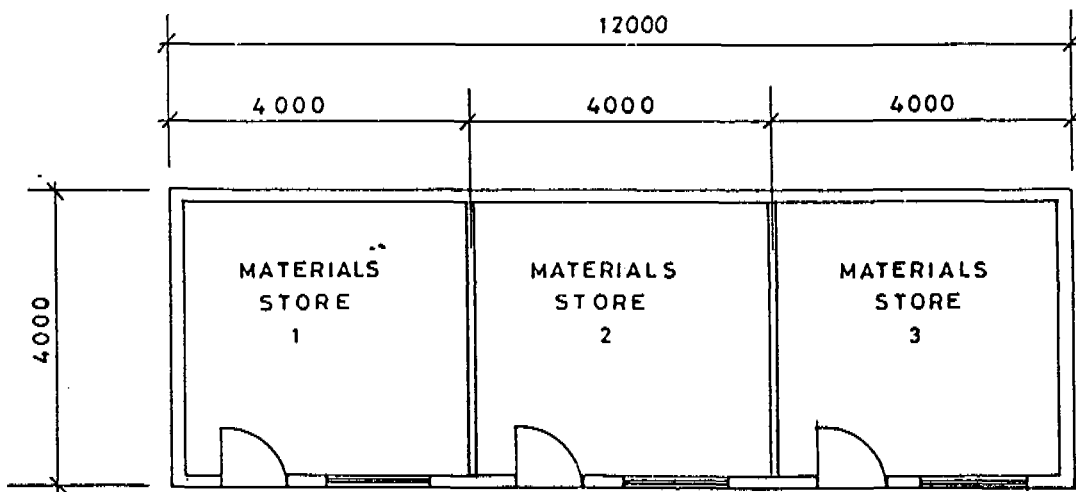
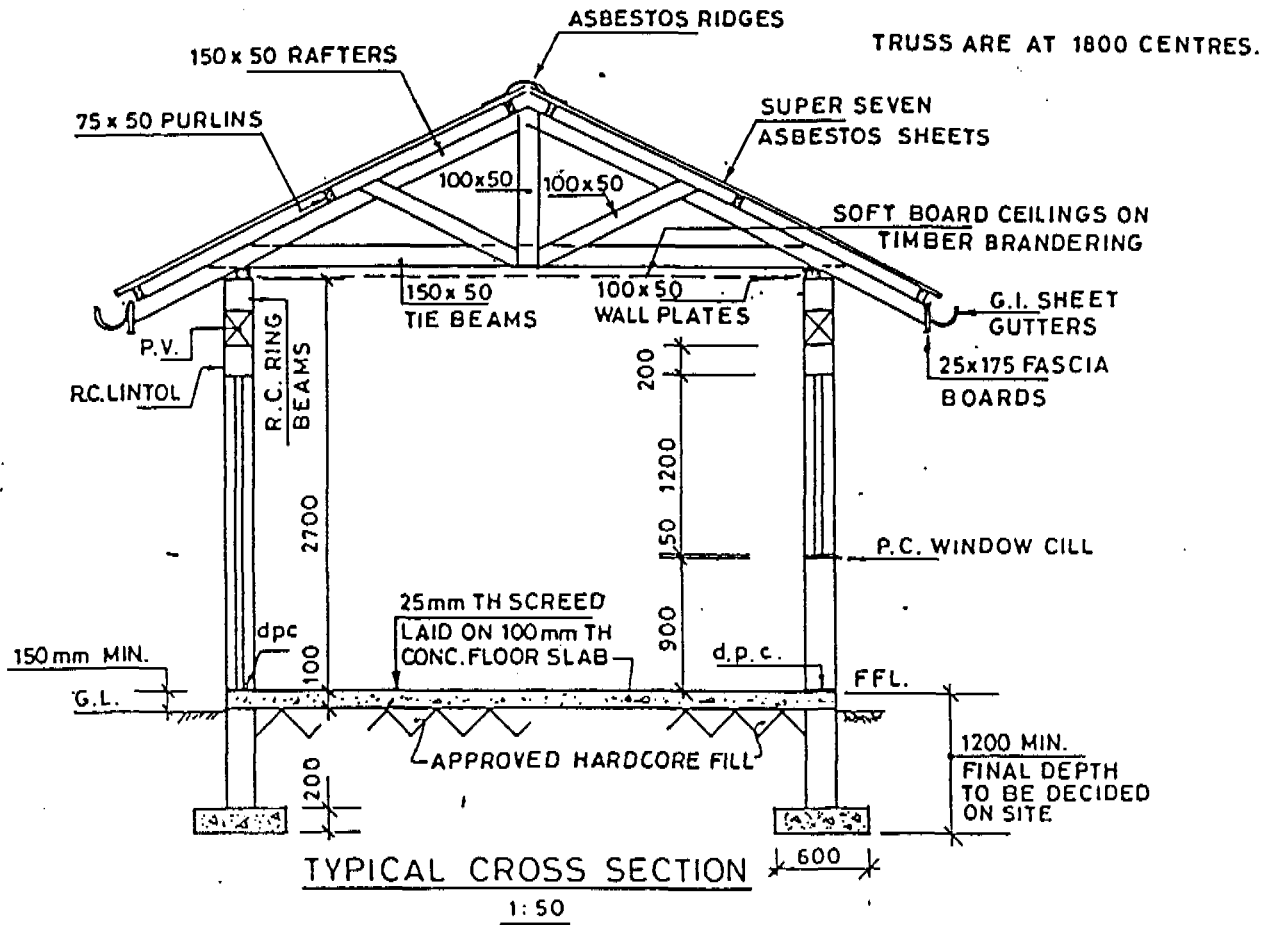
SECTION A - A

DIVISIONS
 KYUSO - 1 No.
 MUTITU - 1 No.



PLAN
 1:700

KIDP STORE / SHED FOR WATER SUPPLY MATERIALS (48m²).

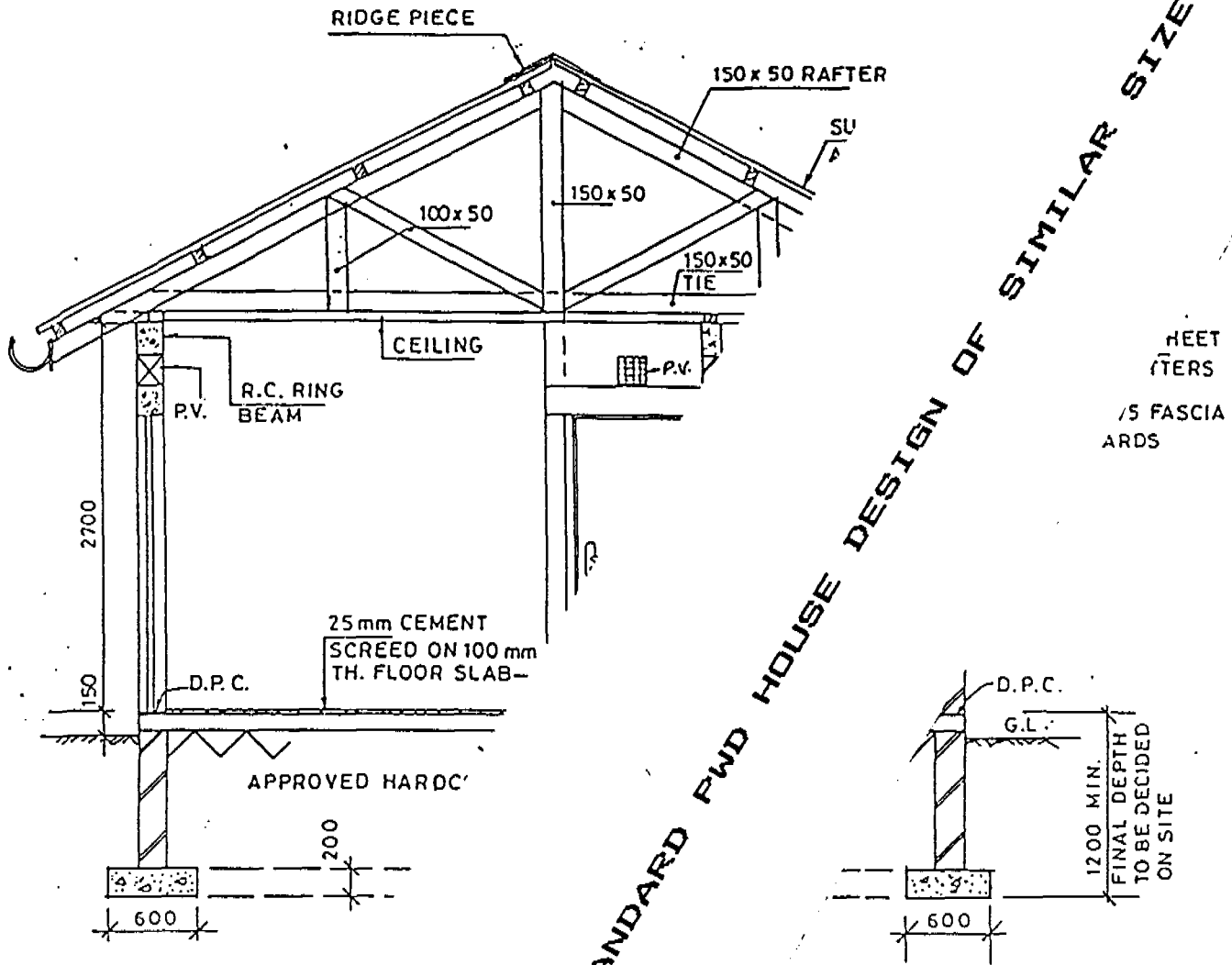


PLAN
1:100

DIVISIONS
KYUSO - 1 No.
MUTITU - 1 No.
MWINGI - 1 No.

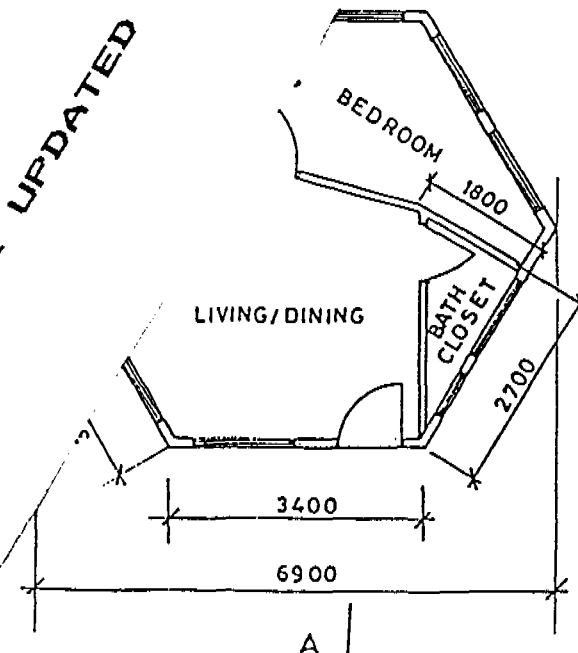
LIVESTOCK DEVELOPMENT CENTRE

STAFF HOUSING (31m²)



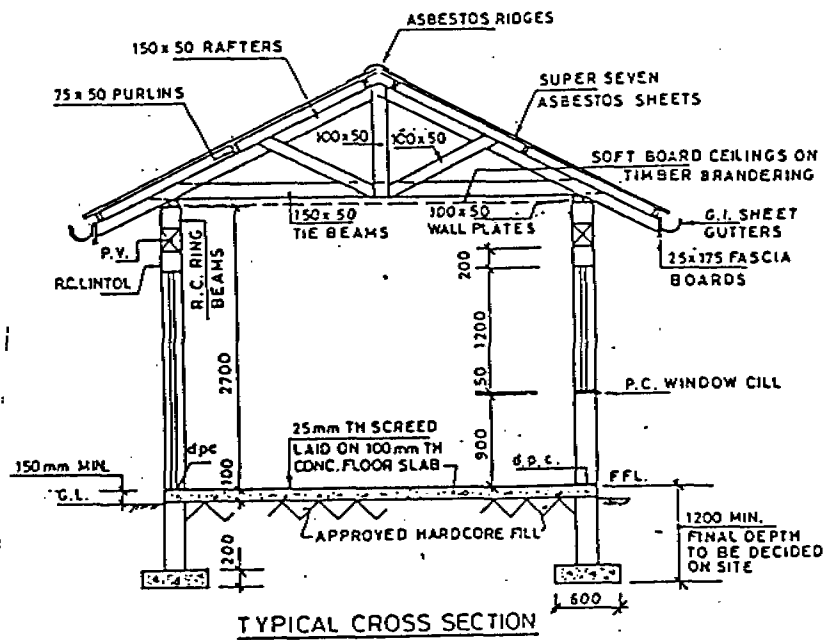
NOTE: TO BE UPDATED WITH STANDARD PWD HOUSE DESIGN OF SIMILAR SIZE

- DIVISIONS
- KYUSO -
 - MUTITU -
 - MWINGI -

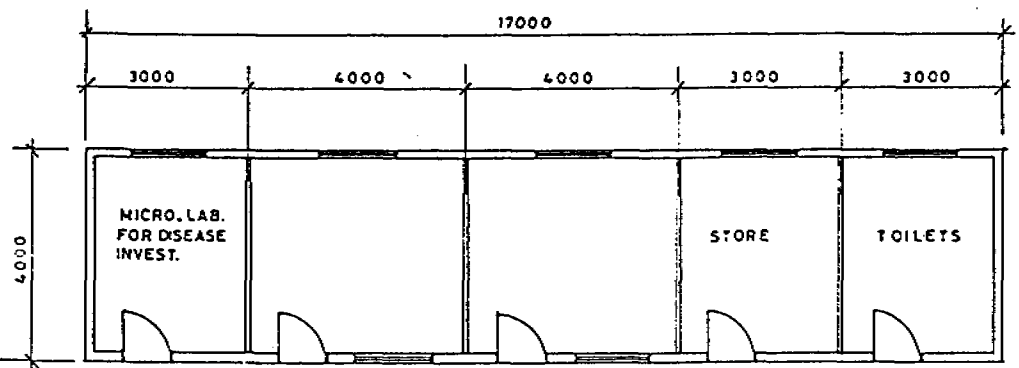


PLAN
1:100

M.O.L.D. OFFICES (68m²)



DIVISIONS
 XYUSO - 1 No.
 MUTITU - 1 No.
 MWINGI - 1 No.

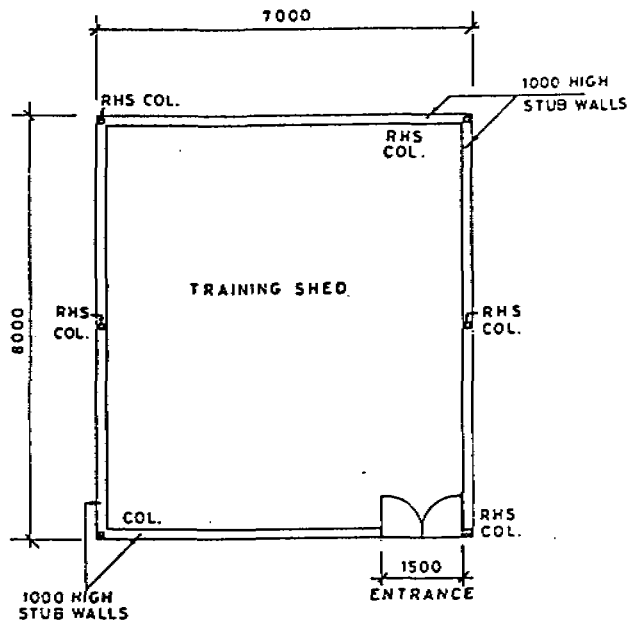


PLAN
 1:100

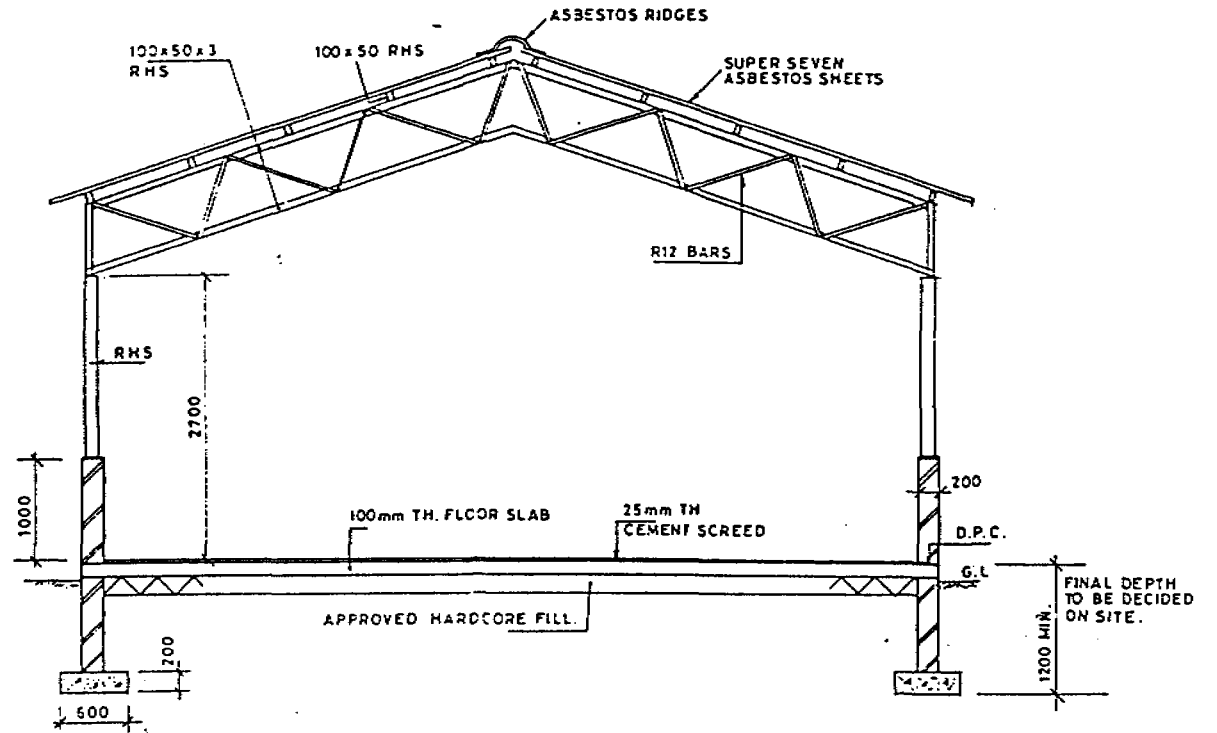
FARMERS CLASSROOM (56.m²)

DIVISIONS

KYUSO- 1No.
MUTITU- 1No.
MWINGI- 1No.



PLAN
1:100



TYPICAL CROSS SECTION
1:50

Annex D

Items for Direct Procurement

Danida will undertake direct procurement of vehicles and equipment for KIDP where this is the most economical procedure. However, such procurement will be initiated only upon receipt of a request from the BOK Treasury (see Annex J).

The items listed below are as in the budget tables in Annex L. The first table shows requirements by section, while the second table shows overall requirements.

A. By Section and Year

<u>Programme Management Unit</u>	89/90	90/1	91/2	92/3	93/4	94/5
		PY1	PY2	PY3	PY4	PY5
4WD LWB	3					3
4WD SWB	1					1
Saloon	1					1
Motorcycles	4					4
Computers and printers	2					2
Photocopiers	1					1
Typewriter	1					1
<u>WPCU</u>						
Hardtop 4WD SWB	2					2
4WD SWB	1					1
Motorcycles	4					4
Computer & Printer	1					1
Typewriter	1					1
<u>Survey & Monitoring Section</u>						
4WD SWB	1					1
Motorcycles	4					4
Computer & Printer	1					1
Typewriter	1					1
<u>Community Education & Training Section</u>						
4WD Station Wagon LWB	1	1			1	1
Motorcycles		4				4
Bicycles	4	13				17
Overhead projector	2					
Video camera	1					
Monitor and v.c.p.	1					
Photocopier	1					

	89/90	90/1 PY1	91/2 PY2	92/3 PY3	93/4 PY4	94/5 PY5
<u>Soil Conservation</u>						
4WD Station Wagon LWB		2				2
Motorcycles		25	23			25
Bicycles		88	30			88
Photocopier		1				
<u>Crop Development</u>						
4WD Station Wagon LWB		2				2
Motorcycles		4	1			4
Photocopier		1				
<u>Water Conservation</u>						
Pick-up 4WD		2				2
Lorry (3.5T)		2	1			2
Motorcycles		4	6	2		4
Concrete mixer		2	2			
Tractor and trailer		4	4			
Water bowser		2	2			
Water pump		2	2			
Hand pumps			20	40	40	40
Uni-ports			24			
Hand drilling rig			3			
<u>Rural Water Supply</u>						
Pick-up 4WD		3	2			3
Lorry (3.5T)		1				1
Motorcycles		4	2			4
Concrete mixer		2	2			
Tractor and trailer		2	2			
Water bowser		2	2			
Uni-ports			16			
Water pumps		2	2			
Hand drilling rig			1			
Surveying set			2			
EC Tester			2			

	89/90	90/1 PY1	91/2 PY2	92/3 PY3	93/4 PY4	94/5 PY5
<u>Livestock Development</u>						
4WD Station Wagon LWB		1				1
4WD Pick-up LWB		5	6			6
Motorcycles		22	15	6		22
Bicycles		56	6			56
Microscopes			12			
Refrigerator, solar panel and battery			6			
Mains electric fridge				1		
Deep freeze 2m ³				1		
Deep freeze 3m ³			1			
Cool boxes			2	1	1	1

Forestry

4WD Pick-up LWB		1	1			1
Tractor		1		1		1
Motorcycles		5				5
Bicycles			19			
Water tank and piping		2				
Water pump and engine		2				

	89/90	90/1 PY1	91/2 PY2	92/3 PY3	93/4 PY4	94/5 PY5
<u>B. By Item and Year</u>						
4WD Station Wagon LWB	4	6			1	9
4WD SWB	3					3
Hardtop 4WD SWB	2					2
4WD Pick-up		11	9			12
Saloon	1					1
Lorry (3.5T)		3	1			3
Motorcycles	12	68	47	8		80
Bicycles	4	157	55			161
Tractor and trailer		6	6			
Tractor		1		1		1
Concrete mixer		4	4			
Water bowser		4	4			
Water pumps		4	4			
Handpumps			20	40	40	40
Uni-ports			40			
Hand drilling rig			4			
Surveying set (water)			2			
EC Tester			2			

	89/90	90/1 PY1	91/2 PY2	92/3 PY3	93/4 PY4	94/5 PY5
Water tank and piping		2				
Water pump and engine (both above for forestry nursery)		2				
Deep freeze 2m ³				1		
Deep freeze 3m ³			1			
Cool boxes			2	1	1	1
Refrigerator, solar panel & battery			6			
Mains electric fridge				1		
Microscopes			12			
Computers and printers	4					4
Photocopiers	2	2				1
Typewriters	3					3
Overhead Projector	2					
Video camera	1					
Monitor and v.c.p	1					

Items that will be required in addition to those listed above include:

Vaccination sets for the veterinary services - syringes, needles, forceps, sterilizers etc.

Survey equipment for the Divisional Livestock Extension Officers.
Equipment for the veterinary laboratories.

Further specifications for some of the items required for the water programme are as follows:

Tractors:	45 - 65 HP
Trailer	3 - 4 tonnes
Water bowser	3 - 5m ³
Water pumps	about 20m ³ /hour
Concrete mixer	(small) 100-150 kg
Hand pumps	Afridev
Hand drilling rig	depth 25m, diameter 5 or 6 inches
Surveying set	set of hand augers
EC Tester	(Electrical Conductivity) water quality tester.

Annex E

Job Descriptions

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A. PROGRAMME MONITORING UNIT (HQ)**Senior Rural Development Planning Adviser (Programme Coordinator)****Background**

The Kitui Integrated Development Programme for Arid and Semi-Arid Lands (KIDP) focuses on:

- Regeneration and preservation of natural resources through soil and water conservation, afforestation and range rehabilitation.
- Strengthening of community participation in development activities.
- Improving agricultural and livestock practices.

KIDP's objective is to facilitate a sustainable increase in agricultural and livestock production so as to maintain living standards for the District's rapidly growing population.

The Programme is supported by the Danish International Development Agency (Danida), which has budgeted 96.6 million Danish Crowns (approximately 260 million Kenya shillings) over a five year period and will provide Technical Assistance to the Programme. Phase 1 of KIDP will run from July 1989 through June 1995.

The Programme, in line with the Kenya Government's policy of District Focus, operates through Government departments at the District level. The main implementing agencies are the Ministries of Agriculture, Livestock, Water Development, and Environment and Natural Resources. The Ministry of Culture and Social Services is also closely involved in KIDP's community education programme.

A Programme Management Unit (PMU) will be responsible for coordinating the planning, implementation and monitoring of the Programme, and for providing central administrative services. Details of the Programme are set out in the KIDP Plan of Operations adopted by the Government and Danida.

Responsibility

The Programme Coordinator will be the leader of the Danida technical assistance team. He will work in close collaboration with his counterpart, the Programme Officer (a Senior Planning Officer of the ASAL section in the Ministry of Planning and National Development), who will head the PMU. The PMU is responsible, through the ASAL Section, to the Head of the Rural Planning Division in MRDASAW.

As well as planning and coordination of the Programme as a whole (which involves collaboration with the District Heads of the implementing ministries), the PMU is responsible directly for KIDP's Survey and Monitoring Section, its Community Education and Training Section and its Water Programme Coordination Unit.

The Programme Coordinator will be responsible for the preparation of accounts and reports to Danida and for the coordination and supervision of the work of the Danida advisers attached to the Programme.

Specific Duties

The Programme Coordinator's role will include:

- Assisting in the overall planning and coordination of KIDP activities.
- Preparing Plans of Operation and detailed work programmes based on inputs received from the implementing officers of the respective ministries and Danida advisers.
- Preparing programme budgets based on the agreed Work Programme.
- Assisting in the development and implementation of monitoring and project auditing systems.
- Ensuring that results of survey and monitoring activities are integrated in programme Work Plans and in preparation of a possible Phase 2 of the programme.
- Countersigning all documents involved in the procurement of services and materials for KIDP such as tender documents, LPOs, LSOs and payment vouchers and, assisted by the Programme accountant, preparing monthly expenditure statements to GOK and Danida.
- Responsibility for forwarding progress reports regularly to Danida.
- Assisting in the planning and implementation of the Institutional Development component of KIDP with special emphasis on identification of:
 - * Areas in which reforms in established bureaucratic procedures and systems can contribute to increased efficiency in order to maximize the utilisation of existing human and physical resources.
 - * Areas in which formal as well as informal (i.e. on-the-job) training can contribute to strengthening the professional qualifications and capabilities of GOK officers involved in KIDP activities.
 - * Systems and methods to be developed and implemented by the PMU for a systematic and thorough monitoring of KIDP project/programme implementation through financial as well as project auditing and reporting.

- * Progress reporting systems and formats in order to arrive at uniform, simple ways of reporting progress in the implementation of KIDP projects.
- Assisting in the establishment of relevant links to other ASAL programmes with the objective of strengthening the communication and exchange of experiences of relevance to development in ASAL areas.
- Assisting in the preparation and coordination of work plans and budgets for the PMU and the various KIDP components.

Necessary Qualifications and Experience

A master's degree in Development Planning, Development Economics or similar.

At least 10 years of post-university professional experience in planning, coordination and monitoring of rural development programmes.

Experience from development work with emphasis on Institutional Development and Personnel Development/Training, preferably from East Africa.

Readiness and ability to work with and inspire colleagues in the District civil service.

A full working knowledge of English is essential and knowledge of Kiswahili and Kikamba would be an advantage.

Terms and Conditions

The Senior Rural Development Planning Adviser (Programme Coordinator) will be engaged by Danida on a Technical Assistance contract. The initial contract period will be two years with the possibility of extension.

Duty station: Kitui.

Commencement: as soon as possible.

District Programme Officer

[The following are the standard terms of reference for Programme Officers issued by MOPND.]

1. The DPO is responsible to the Permanent Secretary, Ministry of Planning and National Development, to coordinate the planning and implementation of programme activities under different ministries, and working very closely with the District Department Heads.
2. Work with the DDO and other members of the District Planning Unit to assess local needs on a continuous basis and identify viable projects compatible with the overall objectives of the Programme, for funding under the Programme. Carry out economic and financial appraisal of the new projects. In liaison with DDO ensure that Programme activities reflect District priorities.
3. Support general activities in the District, through participation in the DEC. DDC and other relevant sub-committees. A member of the District Planning Unit, the DPO would work with the DDO to liaise with other development agencies in the District, to coordinate planning activities.
4. Responsible for preparation of Annual Work Plans and budget proposals for Programme funding in consultation with Departmental Heads of the technical ministries. In liaison with the DDO ensure that the Annual Work Plans are incorporated into the Annual District Annex.
5. Ensure that issues affecting implementation of the Programme, e.g. finances and staff, are communicated to the headquarters of implementing ministries through the District Heads of Departments and are communicated to the donor agency through MPND.
6. Responsible for proper management of project personnel, finances and procurement in accordance with laid down GOK procedures, as agreed between donor agency and GOK.
7. Establish monitoring and evaluation systems for the Programme which are compatible, and provide models that can be adopted for all development activities in the District. Initiate appropriate supporting research activities which will further develop Programme activities; prepare Terms of Reference for necessary consultancies and coordinate consultancy work.
8. Responsible for compilation, analysis and distribution of quarterly and annual financial and implementation reports. Dissemination of consultancy and research results through seminars and workshops.
9. Although the Programme Officer will be concerned with the management of the Programme under his charge, he/she will also create additional planning capacity in the District by assisting the DDO and ADDO and the District Statistical Officer in the District Planning Unit.

Programme Accountant

Background

The Kitui Integrated Development Programme for Arid and Semi-Arid Lands (KIDP) is scheduled to commence in July 1989. The Programme is supported by the Danish International Development Agency (Danida), which has budgeted 96.6 million Danish Crowns (approximately 260 million Kenya shillings) over a five year period and will provide Technical Assistance to the Programme. Phase 1 of KIDP will run until June 1995.

The Programme, in line with the Kenya Government's policy of District Focus, operates through Government departments at the District level. The main implementing agencies are the Ministries of Agriculture, Livestock, Water Development, and Environment and Natural Resources. The Ministry of Culture and Social Services is also closely involved in KIDP's community education programme. Details of the Programme are set out in the KIDP Plan of Operations adopted by the Government and Danida.

A Programme Management Unit (PMU) will be responsible for coordinating the planning, implementation and monitoring of the Programme, and for providing central administrative services. The PMU will be headed by a Programme Coordinator (leader of the Danida Technical Assistance team) and a Programme Officer (a Senior Planning Officer of the Ministry of Planning and National Development). An experienced accountant is required to be responsible to the Programme Coordinator for the financial administration of the Programme.

Responsibility

The Programme Accountant will be responsible to the Programme Coordinator and will cooperate with the Programme Coordinator's counterpart, the Programme Officer. He/she will be in charge of a small Accounts Unit, and will liaise with the PMU's Senior Administrative Officer in areas of common concern. Since the Programme is required to mirror Government financial procedures, he/she will also liaise with the District Accountant in connection with the authorisation and recording of Programme expenditures.

Specific Duties

The Programme Accountant's specific duties will include:

- Maintaining correct and complete financial records for the Programme.
- Ensuring that the financial procedures agreed between Danida and the Government as regards procurement, expenditure authorisation and the recording and reporting of expenditure are followed. Preparing vouchers, cheques etc for approval and signature by the Programme Coordinator and Programme Officer.

- Maintaining records of budgetary provision, expenditures and commitments for each component of the Programme.
- Providing monthly statements of the above; attending meetings of the Programme Steering Committee and providing such other reports on the Programme's financial status as may be required, and in the formats required, by Danida and the Government.
- Preparing regular, adequately documented requests for reimbursement of Programme expenditures.
- Preparing salary and wages payments for all Programme employees.
- Generally to advise the Programme Officer and Programme Coordinator on the financial administration of the Programme.
- Such other duties as may be assigned by the Programme Coordinator.

The Programme Accountant will have a particularly important role during the commencement of the Programme:

- (a) He/she will be involved in the initial establishment and propagation of appropriate financial procedures for the Programme.
- (b) He/she will take over accounting duties for the existing Mutomo Soil and Water Conservation Programme (MSWCP), which is to be incorporated within KIDP.

In both these roles, it is expected that the Programme Accountant will be assisted by an experienced Accounting Firm engaged to assist in the launching of KIDP and the disposition of MSWCP's assets.

Necessary Qualifications and Experience

Requirements are for a professionally qualified accountant with at least 10 years' experience. He/she should be familiar with Government financial procedures and have experience in charge of the financial affairs of a substantial organisation. He/she should have experience in the use of microcomputers for maintaining financial records and providing management information. The highest standards of competence and integrity are required.

Terms and Conditions

The Programme Accountant will be engaged on "Kenyan expert" terms, which will reflect the responsibility of the post. Appointment will be on a fixed-term contract, with an initial probationary period, and the possibility of extension during the period of the Programme.

Duty station: Kitui.

Commencement: as soon as possible.

Senior Administrative Officer

Background

The Kitui Integrated Development Programme for Arid and Semi-Arid Lands (KIDP) is scheduled to commence in July 1989. The Programme is supported by the Danish International Development Agency (Danida), which has budgeted 96.6 million Danish Crowns (approximately 260 million Kenya shillings) over a five year period and will provide Technical Assistance to the Programme. Phase 1 of KIDP will run until June 1995.

The Programme, in line with the Kenya Government's policy of District Focus, operates through Government departments at the District level. The main implementing agencies are the Ministries of Agriculture, Livestock, Water Development, and Environment and Natural Resources. The Ministry of Culture and Social Services is also closely involved in KIDP's community education programme. Details of the Programme are set out in the KIDP Plan of Operations adopted by the Government and Danida.

A Programme Management Unit (PMU) will be responsible for coordinating the planning, implementation and monitoring of the Programme, and for providing central administrative services. The PMU will be headed by a Programme Coordinator (leader of the Danida Technical Assistance team) and a Programme Officer (a Senior Planning Officer of the Ministry of Reclamation and Development of Arid and Semi-Arid and Wastelands). An experienced administrator is required to be responsible to the Programme Officer/Programme Coordinator for the general administration of the Programme Management Unit.

Responsibility

The Senior Administrative Officer will be responsible to the Programme Coordinator and will cooperate with the Programme Coordinator's counterpart, the Programme Officer. He/she will be in charge of the administrative support staff of the Programme Management Unit, including Administrative Assistants posted to the Divisional Offices of the PMU in Mwingi, Mutomo, Kyuso and Mutito. He will cooperate closely with the Programme Accountant in areas of common concern.

Specific Duties

The Senior Administrative Officer's specific duties will include:

- Personnel management in respect of the Programme's direct employees.
- Management of office support services.
- Stores management and control and local procurement for the PMU.
- Management of the PMU's transport fleet and monitoring of the use of vehicles assigned by the Programme to Government departments.
- Attending meetings of the Programme Steering Committee and providing such reports on the administrative and personnel status of the Programme as may be required.
- Such other duties as may be assigned by the Programme Officer and Programme Coordinator.

Necessary Qualifications and Experience

Requirements are for an able administrator with at least 10 years' relevant experience. He/she should be familiar with Government administrative and financial procedures and have experience in charge of the administration of a substantial organisation. The highest standards of competence and integrity are required.

Excellent working knowledge of English is required. Good working knowledge of Kiswahili and/or Kikamba is highly desirable.

Terms and Conditions

The Senior Administrative Officer will be engaged on "Kenyan expert" terms, which will reflect the responsibility of the post. Appointment will be on a fixed-term contract, with an initial probationary period, and the possibility of extension during the period of the Programme.

Duty station: Kitui, with responsibility for overseeing the provision of administrative services of the PMU at its offices in Divisional centres.

Commencement: as soon as possible.

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Computer Officer

Background

The Kitui Integrated Development Programme for Arid and Semi-Arid Lands (KIDP) is scheduled to commence in July 1989. The Programme is supported by the Danish International Development Agency (Danida), which has budgeted 96.6 million Danish Crowns (approximately 260 million Kenya shillings) over a five year period and will provide Technical Assistance to the Programme. Phase 1 of KIDP will run until June 1995.

The Programme, in line with the Kenya Government's policy of District Focus, operates through Government departments at the District level. The main implementing agencies are the Ministries of Agriculture, Livestock, Water Development, and Environment and Natural Resources. The Ministry of Culture and Social Services is also closely involved in KIDP's community education programme. Details of the Programme are set out in the KIDP Plan of Operations adopted by the Government and Danida.

A Programme Management Unit (PMU) will be responsible for coordinating the planning, implementation and monitoring of the Programme, and for providing central administrative services. The PMU will be headed by a Programme Coordinator (leader of the Danida Technical Assistance team) and a Programme Officer (a Senior Planning Officer of the Ministry of Reclamation and Development of Arid and Semi-Arid and Wastelands).

There will be considerable scope for the use of microcomputers within the PMU. Some foreseeable uses include:

- (a) accounts and monthly expenditure statements (PMU HQ);
- (b) survey analysis and maintenance of data bases (Survey and Monitoring Section);
- (c) data base on water conservation structures (Water Programme Coordination Unit);
- (d) preparation of simple manuals and workshop materials (Community Education and Training Section);
- (e) word processing for routine progress reports (all sections of PMU and implementing departments).

Exploitation of computer potential will be facilitated by the employment of a capable Computer Officer to lead a small Computer Unit responsible to the PC/PD. The Unit's services will be available to all sections of the PMU.

Responsibility

The Computer Officer will be responsible to the Programme Officer and Programme Coordinator. He/she will be assisted by a Computer Operator and will from time to time also supervise other PMU staff in their use of microcomputers. He/she will cooperate with the heads of the various Sections within the PMU in the development and implementation of appropriate microcomputer applications.

Specific Duties

The Computer Officer's specific duties will include:

- General oversight of the PMU's microcomputers and associated equipment, ensuring proper use, regular maintenance and the availability of consumables.
- Supervision of PMU staff engaged in data entry etc.
- Training of PMU staff in the use of spreadsheet, data base and word processing packages.
- Assisting the Programme Accountant in the maintenance of financial records.
- Assisting the PD/PC and the Survey and Monitoring Section in the development of reporting routines.
- Such assistance to other Sections as may be required.

Necessary Qualifications and Experience

The Computer Officer will be trained and experienced in the use of microcomputers. He/she will be familiar with standard spreadsheet, database, and word processing packages. He/she will preferably also have some experience in the use of statistical packages.

The Computer Officer will demonstrate ability to train others in computer usage, and to manage a demanding work programme effectively with only limited supervision.

Terms and Conditions

The Computer Officer will be engaged on terms comparable to those for an equivalent Government post. The responsibility of the post will be taken into account. Appointment will be on a fixed-term contract, with an initial probationary period, and the possibility of extension during the period of the Programme.

Duty station: Kitui.

Commencement: as soon as possible.

B. SURVEY AND MONITORING SECTION**Survey and Monitoring Adviser****Background:**

The Survey and Monitoring Adviser will assist the Survey and Monitoring Officer of the Programme Management Unit in implementing the activities of the Survey and Monitoring Section and shall support the Programme management with advice and assistance based on information generated from survey and monitoring of project activities. In the planning and implementing of specific survey and monitoring activities he/she shall collaborate closely with relevant implementing officers and Danida advisers. He/she shall report to and work in close cooperation with the Programme Officer and Senior Rural Development Planning Adviser, and with departmental heads as required, in all activities related to the development efforts of the Programme.

Responsibility:

The Survey and Monitoring Adviser will work under the direction of the KIDP Programme Coordinator, and as counterpart to the Survey and Monitoring Officer, who is head of the S&M Section.

Specific Duties:

The advisory services will include the following activities:

- developing a system for monitoring project progress and impact including attention to socio-economic aspects; developing progress monitoring indicators, in collaboration with other Programme components and the Programme management;
- monitoring community participation in the Programme's agriculture, forestry and water sector work, in particular with regard to future full local takeover of operations once Danida support comes to an end; making recommendations for organisational and institutional set-up and inputs;
- collaborating with all implementing officers and advisers in data collection for the monitoring of activities;
- collaborating with relevant government departments and the Community Education and Training Section in assessing support to be given to women's and other self-help groups;
- carrying out socio-demographic and community organisation inventories in each catchment area preceding water conservation/supply, soil conservation and range rehabilitation activities, to provide information for the planning of these activities; advise on community organisation such as the establishment of soil conservation and water committees, on the basis of survey and monitoring results.

- carrying out special studies based on the Programme's identification of activities and, based on findings, recommending necessary action;
- preparing semi-annual work plans, budgets and reports for the Programme management;
- engaging and supervising external consultants for special studies and for survey and monitoring tasks as required;

In addition the activities of the Survey and Monitoring Adviser shall be guided by all the specific recommendations of the Appraisal Report for the Programme.

Necessary Qualifications and Experience

A master's degree in Social Anthropology, Sociology, Development Economics, or related fields of the social sciences. At least five years' post-graduate professional working experience in socio-economic monitoring, survey or evaluation, and community organisation, within the framework of integrated rural development work or related development areas.

Preferably this experience should be based on working in developing countries. Fluency in spoken and written English is essential and ability to communicate in Kikamba and Kiswahili would be a great advantage.

Terms and Conditions:

The Survey and Monitoring Adviser will be engaged by Danida on a Technical Assistance contract. The contract period will be for two years with the possibility of extension.

Duty Station: Kitui.

Survey and Monitoring Officer

Background

The Kitui Integrated Development Programme for Arid and Semi-Arid Lands (KIDP) focuses on:

- Regeneration and preservation of natural resources through soil and water conservation, afforestation and range rehabilitation.
- Strengthening of community participation in development activities.
- Improving agricultural and livestock practices.

KIDP's objective is to facilitate a sustainable increase in agricultural and livestock production so as to maintain living standards for the District's rapidly growing population.

The Programme is supported by the Danish International Development Agency (Danida), which has budgeted 96.6 million Danish Crowns (approximately 260 million Kenya shillings) over a five year period and will provide Technical Assistance to the Programme. Phase I of KIDP will run until June 1995.

The Programme, in line with the Kenya Government's policy of District Focus, operates through Government departments at the District level. The main implementing agencies are the Ministries of Agriculture, Livestock, Water Development, and Environment and Natural Resources. The Ministry of Culture and Social Services is also closely involved in KIDP's community education programme. Details of the Programme are set out in the KIDP Plan of Operations adopted by the Government and Danida.

A Programme Management Unit (PMU) will be responsible for coordinating the planning, implementation and monitoring of the Programme, and for providing central administrative services. The PMU will include a Survey and Monitoring Section, headed by a Survey and Monitoring Officer.

Responsibility

The Survey and Monitoring Officer will work under the direction of the Programme Officer and the Programme Coordinator. During the first year or so he/she will be counterpart to a Survey and Monitoring Adviser, provided through Danish technical assistance.

The Survey and Monitoring Officer will be in charge of a small team of Survey and Monitoring Assistants, posted to the Divisions in which KIDP is operating, and will be required to cooperate with all the involved implementing agencies.

Specific Duties

The Survey and Monitoring Officer's role will include:

- the development of systems for monitoring the implementation and impact of Programme activities, with special attention to their socio-economic aspects;
- collaboration with implementing officers in the collection of data necessary for monitoring their programmes;
- supervising, jointly with the Survey and Monitoring Adviser, the baseline survey to be conducted at the commencement of the Programme;
- participating in the preparation of socio-economic inventories for specific localities (these to be prepared using Rapid Rural Appraisal techniques by multi-disciplinary KIDP teams);
- supervision of specific consultancies relating to S&M;
- compiling reports on the Programme;
- disseminating the findings of the Survey and Monitoring Section through reports, workshops etc.;
- preparing annual work plans and budgets for the Survey and Monitoring Section;
- participating in the Programme Steering Committee;
- such other related duties as may be assigned by the Programme Officer and Programme Coordinator.

Necessary Qualifications and Experience

A master's degree in a relevant social sciences discipline and at least 5 years relevant post-university professional experience. This experience should include the organisation, management and reporting of substantial field survey work.

Excellent English with a demonstrable ability to write readable reports is essential. Knowledge of Kikamba would be highly desirable.

Terms and Conditions

The Survey and Monitoring Officer will be engaged on "Kenyan expert" terms, which will reflect the responsibility of the post. Appointment will be on a fixed-term contract, with an initial probationary period, and the possibility of extension during the period of the Programme.

Duty station: Kitui, but the job requires extensive field work in throughout the District and supervision of field staff in each Division.

Commencement: as soon as possible.

C. COMMUNITY EDUCATION AND TRAINING SECTION**Senior Training Officer****Background**

The Senior Training Officer will be responsible for implementing the activities of the Programme Management Unit Community Education and Training Section (CETS) and will support the project management with advice and assistance on the project's training, communication and community organisation strategies. He/she shall report to the Programme Officer and the Programme Coordinator and shall maintain close cooperation with both these officers concerning all activities related to development efforts of the programme. He/she will work in close cooperation with the Social Services Department of MOCSS and other relevant implementing officers/advisers. He/she shall collaborate with other relevant government, NGO and donor agencies in Kitui and elsewhere in Kenya involved in training, communication and community participation.

Duties

The advisory services will include the following activities:

- preparation of a comprehensive project strategy and methodology for training, including community mobilisation aspects, as a framework plan for training activities in Phase I of the programme.
- identification of training needs in the programme area, including an inventory of target groups to be trained.
- close liaison with Development Committees at various levels.
- introduction and establishment of appropriate communication techniques of specific relevance to the different social contexts of training and communication, prepare training curriculum and communication materials for each category of training based on experiences available in Kenya.
- organisation and implementation of project training activities covering the immediate target groups, development committees, community leaders, government frontline staff and training of trainers as necessary.
- carrying out follow-up on training activities based on immediate feed-back information and monitoring/data reports.
- promotion of organisational and management skills to local committees and women's groups.
- provide internal and external orientation about project objectives, strategy and range of activities.

- working together with each relevant government department to define their role in the project's training activities and subsequently to ensure that activities are carried out through and in close collaboration with the departmental staff.
- preparation of manuals for community organisation and training.
- preparation of semi-annual work plans, budgets and reports for the programme management.

In addition, the activities shall be guided by all the specific recommendations of the Appraisal Report for the Programme.

Necessary Qualifications and Experience

A masters degree in a relevant Education/Training discipline. At least five years post-graduate professional working experience in training, communication and community organisation within the framework of integrated rural development projects. Preferably this experience should be based on working in Government or NGO-implemented programmes in Kenya. A full working knowledge of English is essential and some knowledge of Kikamba would be a great advantage.

Assistant Training Officer

Background and Duties

The Assistant Training Officer will be responsible to the Senior Training Officer of the CETS. He/she will be responsible for the organisation and coordination of all project training activities in the assigned Divisional area. The officer will work in close cooperation with field and extension staff in the Ministries of Culture and Social Services, Agriculture, Livestock Development, Water and Health. He/she will collaborate with other relevant government, NGO and donor agencies in the District as and when appropriate.

The officer will be expected to design, plan and implement direct training activities as well as organize and facilitate training events for the technical sectors of the project.

Necessary Qualifications and Experience

A first degree in an education/training discipline, or a diploma in Adult Education plus relevant experience. Experience for all candidates should include at least 3 years professional work experience in adult education and community organisation and development. A full working knowledge of Kikamba and English is essential.

D. WATER PROJECT COORDINATION UNIT**Senior Water Engineer****Background**

The Senior Water Engineer will head the Water Programme Coordination Unit (WPCU) to be established in the KIDP Headquarters under the PMU. He/she will work in close cooperation with MOWD and MOA staff in charge of the Rural Water Supply Programme (MOWD) and the Water Conservation Programme (MOA). He/she will assist in the planning, design and implementation of water supply schemes within KIDP. He/she will report to the Programme Officer and the Programme Coordinator of the PMU and be responsible to the Programme Coordinator for monitoring Danida's support to the water supply sector in Kitui.

Duties

The Senior Water Engineer's duties will include the following:

- in close collaboration with the KIDP implementing officers, appraise the technical feasibility of proposed water supply schemes;
- supervise the work of the WPCU Site Survey Consultant;
- assist and conduct on-the-job training for District and Divisional staff in survey, design and construction of spring-fed piped gravity schemes and water conservation schemes (rock catchments, sub-surface and sand dams, earth dams and shallow wells);
- compile and analyse data on the water supply and water demand situation in the rural areas of Kitui;
- compile and analyse hydrological data for the District;
- assist the Community Education and Training Section with the formulation of education and training programmes for local water committees and consumers in the proper use and maintenance of water supply facilities;
- collaborate with the Survey and Monitoring Section in the monitoring of completed water supply schemes;
- plan and carry out ad hoc studies or surveys of water conservation structures and make recommendations as required;
- prepare plans and budgets, as well as quarterly and annual progress reports, as required by the PMU.

Duty Station

The duty station will be the KIDP Headquarters, Kitui. The nature of the job will, however, involve extensive travel to the Divisions.

Qualifications

At least five years of professional experience in planning, design and implementation of small-scale rural water supply systems, especially in water conservation and harvesting structures, in semi-arid areas. He/she must show ability to work with and carry out on-the-job training of technical staff. Competence in spoken and written English and a working knowledge of Kiswahili are required.

Assistant Construction SupervisorResponsibility

The Assistant Construction Supervisor will be attached to the KIDP WPCU at Divisional level and will work under the Senior Water Engineer and in close cooperation with MOWD and MOA Divisional staff involved in construction activities.

Duties

The Assistant Construction Supervisor's duties will include the following:

- in close collaboration with implementing staff of MOWD and MOA, monitor progress and quality of the individual construction and rehabilitation projects undertaken by these ministries with KIDP funds;
- monitor the distribution of materials and tools and the deployment of equipment and transport;
- assist in training artisans and small contractors.

Duty Stations

Duty stations will be at Mutito, Kyuso, Mwingi or Kitui.

Qualifications

At least five years as a senior and experienced artisan involved both in the construction and site supervision of rural water supply projects. He will have extensive experience in the construction and rehabilitation of spring protection and gravity pipelines, rock catchments, shallow wells, sand and subsurface dams, small and medium earth dams, tubewells, boreholes and roof catchment systems. A working knowledge of English and a sound understanding of Kiswahili are required. Some knowledge of Kikamba would be an advantage.

E. OTHER**Livestock Development Officer**Duties

The Livestock Development Officer will assist the District Livestock Production Officer. His duties will include the following:

- preparation of KIDP work plan and budgets in the livestock sector (i.e. Animal Health and Livestock Production);
- assisting with the preparation of Divisional work plans which coordinate the activities of MOLD and MOA staff in the planning and implementation of soil conservation and range rehabilitation on a sub-catchment basis;
- assisting the Community Education and Training Section in preparing training materials and conducting courses for the community in livestock production and range improvement, etc.;
- assisting the DLPO in training range and livestock production staff and TAs;
- assisting the subject matter specialists (DAPD, DLMO etc.) with the preparation of status reports on Goat Improvement, KTB hives, and Livestock Marketing and proposals for KIDP support, scheduled for submission to annual review missions.

Necessary Qualifications and Experience

Degree in Agriculture/Agricultural Botany/Livestock Production. Practical experience of range improvement and fodder/forage production and conservation in ASAL districts of Kenya. Experience of programme planning and management.

Annex F

Consultancies

I. OVERVIEW

It is intended that KIDP should draw systematically on consultancy assistance (if possible from within Kenya) to provide support to the implementing agencies and the PMU in carrying out the Programme and planning its future course.

The present Annex provides a checklist of the consultancy inputs presently foreseen, which can be found on the next page, followed by full terms of reference where these have already been drawn up. These are in the remaining sections of this Annex as follows:

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IX Site Survey Consultant	27

SECTOR	CONSULTANCY TITLE AND TASK	TIMING	FURTHER DETAILS
<u>General Planning and Evaluation</u>	<u>Programming Mission</u> Joint GOK/Danida team to review progress and work with KIDP staff to develop successive annual work plans and forward budgets for KIDP.	Annual, March/April	Section II
	<u>Mid-Term Review</u> External review of KIDP to determine prospects for Phase 2 etc.	Second half of 1992	Section III
	<u>Non-Farm Income Generation</u> This is identified as a possible further area of KIDP activity. It could be a separate study or part of Mid-Term Review assignment.	To be determined	Appraisal Rept. para. 4.5.7.3 Chapter 2, para. 2.16
	<u>Review of District Focus Operation in Kitui</u> A study proposed in Appraisal Report. It is considered that this should not be undertaken before KIDP has established itself and suitably specific terms of reference can be drawn up based on KIDP's own experiences.	To be determined	Appraisal Rept para. 4.5.1.3
<u>Project Management</u>	<u>Initial Accounting Services</u> To supervise financial aspects of integration of MSWCP with KIDP and to set up appropriate financial systems for KIDP.	June 1989	Section IV

SECTOR	CONSULTANCY TITLE AND TASK	TIMING	FURTHER DETAILS
<u>Community Education and Training</u>	<u>Evaluation of Mutomo Mobilisation and Training</u> In-depth review of NSWCP's experience with intensive Group Coordinator approach.	1990	Section VII
	<u>Resource People for Training Courses</u>	Frequent	Chapter 5 para. 5.36
<u>Water Conservation and Rural Water Supply</u>	<u>Site Survey Consultant</u> To make technical appraisals and assessments of water development activities in advance of construction.	Regular inputs	Section IX
	<u>Study of Spring Development Potential</u> with a view to identifying perennial sources for piping to communities in the more densely settled and more humid parts of the District.	PY1	Section VIII
	<u>Groundwater Dam Evaluation</u> Study of effectiveness of sand dams and sub-surface dams.	PY1 Section VIII Phase 1, 2-3 years Phase 2, up to eighteen months	
	<u>Groundwater Potential Study</u> To evaluate the potential for groundwater development in the District.	To be determined	Section VIII
<u>Livestock</u>	<u>Disease Prevalence Survey</u> To assess prevalence of disease in cattle and small-stock to enable the preparation of a disease-control plan.	To be determined 1 year.	Section V
<u>Survey and Monitoring</u>	<u>Baseline Survey</u> To provide information to assist in the planning of KIDP activities and to establish a benchmark data base against which to measure the impact and effectiveness of the Programme.	1990	Section VI

II. GOK/DANIDA ANNUAL PROGRAMMING OF KIDP

Background

A. The Kitui Integrated Development Programme has adopted a "process" rather than a "blueprint" approach to the planning of its activities. There will be continual review of progress, and there is scope for modifying the content of Programme components and resources allocated to them. The Programme's planning cycle dovetails with the GOK cycle for forward and annual budgeting.

B. Primary responsibility for implementation and planning of the Programme rests with the Programme Management Unit and the Heads of the Implementing Departments. However, both the Ministry for Reclamation and Development of Arid and Semi-Arid and Wastelands, which has overall responsibility for KIDP, and Danida, as the external funding agency, are involved in the strategic planning and direction of the Programme. Each year, therefore, a joint MRDASAW/Danida Annual Programming exercise will be conducted.

Terms of Reference

C. The general tasks of the Programming Team will be:

- to review KIDP's progress against the general objectives and specific targets set out in the Plan of Operations and the Annual Work Plan;
- to review each of the sectoral components of the Programme and the performance of its central administration (PMU);
- to review arrangements for disbursement of funds;
- to report on the fulfilment of their respective obligations by both GOK and Danida;
- to identify any problems that may have arisen and make recommendations for dealing with them;
- to make recommendations on the future sectoral and geographical allocation of resources under KIDP, particularly concerning the next annual budget.

D. The Team may be given additional specific terms of reference as deemed appropriate by MRDASAW and Danida.

Timing and Conduct of the Annual Programming Exercise

E. The Programming Exercise will be conducted in March/April of each year, so as to enable its conclusions to influence the detailed work plans and budget for the financial year beginning on 1 July.

F. The Programming Team will comprise members nominated by MRDASAW and by Danida. Danida will identify the Team Leader. Secretarial and logistic support will be provided by the PMU.

G. The Programme Steering Committee in Kitui will serve as a reference group for the Team.

H. The team will prepare a summary of its conclusions and recommendations. These conclusions and recommendations will be discussed with the PSC before final submission to MRDASAW and Danida in Nairobi.

III. MID-TERM REVIEW OF KIDP

Background

A. The Kitui Integrated Development Programme (KIDP) is envisaged as a long-term development effort. The 1989 Appraisal Report, upon which the Programme was based, anticipated that the first Phase (1990/91-1994/95) might be part of a 15-20 year programme.

B. KIDP is one of a number of programmes specifically addressing the problems of Kenya's arid and semi-arid lands. It is appropriate that decisions about the long-term development of the Programme should be taken in the light of:

- (a) a review of the effectiveness of KIDP's interventions to date;
- (b) comparative experience from Kenya's other ASAL programmes and the development of national strategies for rural development.

C. A Mid-Term Review of KIDP will therefore be mounted during the second half of 1992. (This timing will allow a review of the first two full years of the Programme's implementation, while the Review's findings will feed into the third GOK/Danida Annual KIDP Programming Exercise.)

Terms of Reference

D. Broadly, the Mid-Term Review Team will be required:

- to assess the performance of the Programme to date and its prospects for achieving the objectives set out in the Plan of Operations;
- to assess separately each sectoral component of the Programme, its central management, the community education and training approach, and its survey and monitoring activities;
- to consider whether additional activities should be incorporated within the Programme, or existing ones discontinued;
- to make recommendations concerning the allocation of resources within the Programme during the remainder of Phase 1;
- to make recommendations, as appropriate, for the improved organisation and management of the Programme, including internal monitoring and planning procedures;
- to make recommendations concerning the possible extension of the Programme beyond Phase 1.

E. The Mid-Term Review Team will be required to take account, inter alia, of:

- the policies of the Government of Kenya as they relate to ASAL development and the management of aid programmes;
- the likely availability of resources (human and financial) both from Danida and from GOK;
- comparative experience of other ASAL projects in Kenya.

F. The Mid-Term Review Team will draw on the internal monitoring and evaluation reports prepared by KIDP and on previous consultancies commissioned in connection with the Programme (e.g. the evaluation of the training and mobilisation effort in Mutomo Division that is planned for 1990.

G. More specific terms of reference will be drawn up and agreed between Danida and GOK during 1992. (The second GOK/Danida Annual Programming exercise, to be conducted in March/April 1992, will be asked to make recommendations concerning the terms of reference and areas of expertise for the Mid-Term Review team.)

IV. INITIAL ACCOUNTANCY SERVICES

Background

A. The Kitui Integrated Development Programme (KIDP), funded by the Danish International Development Agency (Danida), is scheduled to commence officially on 1 July 1989. KIDP will incorporate continuing activities of the Mutomo Soil and Water Conservation Project (MSWCP) which has been operating since 1982, also with Danida support, in the Southern Division of Kitui District.

B. KIDP financial procedures will, as far as possible, follow those of the Government of Kenya (GOK). Danida-financed expenditures will be reflected in the GOK Estimates, and will require the same authorisation as GOK-funded expenditures. However, actual payments will be effected from a special KIDP bank account in Kitui and will require the authorising signatures of both the Programme Officer and the Programme Coordinator (the Senior Rural Development Planning Adviser provided by Danida).^[1]

C. KIDP will involve a number of Government departments in its implementation. Central coordination of the Programme and management of its finances and physical resources will be undertaken by a Programme Management Unit (PMU) headed by the Programme Officer and Programme Coordinator.

D. The Mutomo Soil and Water Conservation Project has a project-employed work force of over 170 people, a vehicle fleet and workshop, and a substantial inventory of buildings, equipment and stores. It has had a separate administration, and has in recent years operated entirely outside of the GOK financial system, although it has provided support to the activities of the Ministry of Agriculture within Mutomo Division. The MSWCP Project Manager is the Divisional Agricultural Extension Officer, but he is counterpart to a Danish Project Coordinator.

E. A Plan of Operations for the Kitui Integrated Development Programme has been agreed by GOK and Danida. The Plan of Operations provides detailed guidelines for the organisation and management of KIDP and for the incorporation within the Programme of MSWCP. Nevertheless, the transition will require careful supervision to ensure an orderly and proper disposition of MSWCP assets and to avoid disruption of the development activities that will be carried over from MSWCP to KIDP.

[1] The District Accountant will be alternate signatory for the Programme Officer.

F. The services of an experienced Accounting Firm are therefore required:

- (a) to assist the PMU in setting up financial management and control procedures for KIDP; and
- (b) to supervise the disposition of MSWCP's assets and the integration of MSWCP's financial administration with that of KIDP.

Detailed Requirements

G. The KIDP Plan of Operations describes in detail the proposed modus operandi of the Programme and what is to happen to the present constituents of the Mutomo Soil and Water Conservation Project. In keeping with the Plan of Operations, the Accounting Firm will:

- (a) Take over the role of Accountant within the MSWCP until this function can effectively be discharged by the Accountant to be appointed to the KIDP Programme Management Unit.
- (b) Verify the assets of MSWCP and ensure their proper and orderly handover to KIDP or other parties as specified in the KIDP Plan of Operations.
- (c) Assist in the recruitment of the Accountant and Senior Administrative Officer for the KIDP Programme Management Unit.
- (d) Assist the PMU to set up procedures for financial management and control of stores and vehicles.
- (e) Assist the PMU in setting up computerised record systems for budgetary control and reporting.
- (f) Prepare a manual to guide Programme staff and officers of implementing ministries in the financial and administrative procedures to be followed by the Programme. The Manual shall include specimen copies of forms to be used; these will follow GDK equivalents whenever appropriate.
- (g) Assist in expediting initial procurement by the Programme and the commencement of its substantive operations.

H. The Accounting Firm will be retained by the Danida Mission, Nairobi, on terms to be agreed in advance between the firm and Danida. The firm will provide a Senior Accountant (financial administrator) to be responsible for its work, and may propose additional supporting staff. The Senior Accountant will be familiar with Government's financial and accounting systems. The Senior Accountant will be assigned full time until the KIDP accountant to be appointed is able to take full responsibility.

I. The Senior Accountant will work under the direction of the KIDP Programme Coordinator, or the acting Programme Coordinator designated by Danida. In Mutomo he will liaise with the designated Danida Project Coordinator and with the Divisional Agricultural Extension Officer. In Kitui he will liaise, inter alia, with the District Accountant.

J. In view of the need to ensure timely commencement of KIDP operations, the Senior Accountant will commence his duties in Mutomo and Kitui as soon as possible.

V. DISEASE PREVALENCE SURVEY OF LIVESTOCK IN KITUI DISTRICT**A. INTRODUCTION**

KIDP is involved in a five-year programme aimed at improving the infrastructure of the Veterinary Service and implementing a disease-control programme throughout the District. Information on the prevalence of disease in cattle and smallstock and its economic significance needs to be gathered and analysed in order to prepare an effective plan for the control of animal disease in the District. The survey will be carried out in conjunction with the DVD for Kitui District.

B. ACTIVITIES**Preparation**

Inventory of available data, development of a detailed work plan and preparation of field work.

Field work

The field work will consist of (a) a serological survey, (b) a field inventory of pathological conditions of animals in the slaughter-houses of Kitui, and (c) a field survey by means of questionnaires among livestock owners. Sampling and surveying will be done in selected areas which are representative of the different ecological zones of Kitui District.

Evaluation of Data and Reporting

A report will be prepared which will include recommendations for further activities in support of the District Veterinary Service.

C. EXPECTED OUTPUT

The Study will result in a proposal for a strategic animal disease control programme for the District.

A workshop will be organised in Kitui under the auspices of the DVD to evaluate and discuss the results of the survey and prepare further required activities.

D. REQUIREMENTS**Personnel (salaries/per diems)**

The Study will be implemented by the Veterinary Department of MOLD and supervised by a veterinary consultant appointed by Danida.

	no.	period
Veterinary Research Officers	2	2 months each
Animal Health Assistants	2	2 months each
Divisional Livestock Officers	3	1 month each
External Consultant (Danida)	1	4 months

Transport

2 vehicles (4WD) for 2 months each.

Estimated Budget

Personnel - per diem:	VRDs 2 x 40 days x 300	= Ksh 24000
	AHAs 2 x 40 days x 200	= 16000
	DLOs 3 x 20 days x 200	= 12000
Transport (KIDP)	2 cars x 3000km x Ksh 6	= 36000
Veterinary consumables		20000
Reporting costs		10000
Contingencies		15000

		133000

External consultant

(direct paid Danida)

E. PROJECT DURATION

1 year.

VI. SOCIO-ECONOMIC BASELINE SURVEY

Introduction and Objectives

A. A socio-economic baseline survey is to be conducted as an initial Survey and Monitoring activity of the Kitui Integrated Development Programme (KIDP).

B. The objectives of the survey are:

- to provide project implementors with information from a situational analysis of selected areas in the District which will enable them better to plan activities according to the needs and involvement of the target population;
- to establish a benchmark data base against which progress and the impact generated by the Programme's activities and inputs (towards achieving its objectives) can be measured through impact studies.

Survey Methodology

Scope

C. When designing the survey, there will be close collaboration with each implementing department in order to arrive at a necessary and relevant data base for all departments involved.

D. At a general level the survey must produce data on the socio-economic, community organisation, land-use and ecological conditions prevailing in the four main agro-ecological zones of the District. The data should be related to the sectoral interventions (and their objectives) planned for in the Programme as well as its long-term development objectives.

ASAL Survey experiences

E. Lessons learned from the Taita-Taveta baseline survey shall be taken into account when designing the survey, especially regarding the amount and type (including level of detailing) of data. The S&M Officer and Adviser should therefore consult the Taita-Taveta ASAL Programme (including the baseline survey report) and collect experiences before commencing the survey in Kitui.

F. Of special relevance will be experiences with respect to e.g.:

- census and sampling procedures;
- preparation of questionnaires;
- enumerator training;
- field data collection.

In the report itself data presentation and analysis can be assessed.

G. The experiences from the Kitui Livestock Survey shall also be used in preparation of the baseline survey. Some of the sample villages in this study may be chosen for the baseline survey.

Timing

H. The entire survey, from initial design to completion of the report, should be completed within 12 months. A tentative schedule, assuming a January 1990 start, is as follows:

<u>Activity</u>	<u>Month (1990)</u>
- Design of survey and organisational set-up	January
- Hiring consultant	February
- Area selection (8 sub-locations in 4 agro-ecological zones where Programme activities will start in Year 1 or 2)	February
- Preparation of questionnaires and survey methodology	March
- Recruiting and training enumerators (8)	April
- Pre-testing of questionnaires	May
- Household census in each sub-location	"
- Sampling (30 households in each sub-location)	"
- Field data collection (4 months)	June to August
- Data processing/analysis	September to October
- Report writing	November to end December.

Organisation and Staffing

I. Since the S&M Section will be involved in other activities also it will be necessary to hire a consultant and eight local enumerators (the latter for the three months of field survey) to assist in the survey. Consultancy assistance could be sought from the Centre for Development Studies (Copenhagen), the Institute of Development Studies (Nairobi) or similar bodies.

J. The S&M Adviser, in conjunction with the S&M Officer, will have the overall responsibility and the S&M Assistants at divisional level will guide and assist in supervision of the field enumerators. The former will also be responsible for collection of the more qualitative data (ref. content of the survey below.)

K. The consultant will be immediately responsible for the supervision of the census and data collection and processing. He/she will participate in area selection, preparation of questionnaires, recruitment and training of enumerators, analysis of data and report writing together with the S&M Officer and the S&M Adviser.

Content of the Baseline Survey

- L. The survey shall include data and information on the following:
- geographical/environmental characteristics of the survey areas;
 - demography of sample population including age and sex composition of households, population growth trends, migration etc;
 - social data of households including marital structure, level of education and training, women's group membership, gender processes;
 - main occupations and economic activities;
 - land holding/tenure, including different types of land use;
 - cropping pattern and animal husbandry practices (including grazing/browsing practices);
 - soil conservation and agro-forestry practices;
 - marketing of agricultural and livestock produce;
 - non-farm/income-generating activities;
 - water availability and usage patterns for humans and livestock;
 - household labour allocation between sectors;
 - time utilisation calendar of household members according to return on labour.

Reporting

M. The final reports from the baseline survey shall include:

1. Situational analysis papers (4)

The 4 papers will each comprise a detailed socio-economic analysis of 2 sample areas (sub-locations) in one agro-ecological zone. The analysis will be based on household level statistics and other benchmark data. The papers will also identify and rank key development constraints at household (according to wealth) and at the locality (sub-location) level. The benchmark data shall be presented in a way which will enable measurements of change/progress by the impact study in Year 5.

The papers shall also present general recommendations to the Programme concerning in particular priorities and timing of technical interventions (soil conservation, agro-forestry, water development and livestock development) and improved strategies for community involvement.

2. Household profiles

Detailed reports on socio-economic profiles of individual farm households representing various wealth strata (according to land, livestock or other fixed asset ownership). The reports shall include household histories and their strategies over time with a focus on labour utilisation, agricultural/livestock investments and practices and off-farm employment.

3. Impact monitoring indicators

Identification of additional socio-economic indicators for impact monitoring (or studies) within each of the activity sectors of the Programme, such as:

- participation rate in soil conservation (and farm-level benefits);
 - adoption of improved agricultural and agro-forestry practices (and farm-level benefits);
 - adoption of range rehabilitation (and farm-level benefits);
 - involvement in O&M of water projects;
 - benefits from improved water supplies.
-

VII. EVALUATION OF GROUP MOBILISATION IN MUTOMO DIVISION

A. The Mutomo Soil and Water Conservation Project (MSWCP) has been operating in Kitui District's Southern (Mutomo) Division since 1982, engaged in soil and water conservation work. During 1989/90 MSWCP is to be incorporated into the KIDP, which will operate all over Kitui District, and will support a wider range of activities.

B. Much of MSWCP's work has been carried out in conjunction with community groups - most often the *swethya* self-help groups that are a Kamba tradition. Concern developed about groups' motivation, their understanding of the objectives underlying Project activities and their capacity to sustain the innovations and maintain the facilities promoted by the Project. In its later stages, therefore, MSWCP has given special attention to group mobilisation and training.

C. A Training Section was established in the second half of 1987, under a Training Officer and Assistant Training Officer (both of them Kenyans hired by the Project). During 1988, 9 Group Coordinators were hired, and in 1989 their numbers were increased to 16 (plus a Senior Group Coordinator). All are Kikamba speakers, coming from the Division itself, and are educated to Form IV level. The Group Coordinators have been charged with the identification, mobilisation, monitoring and evaluation of self-help group activities.

D. The objectives of the Group Coordinator cadre in Mutomo correspond with those of the Community Education and Training Section (CETS) to be established under KIDP (see Chapter 5 of the KIDP Plan of Operations). However, the approach is different in a number of respects:

- It bypasses the Social Development Assistant (SDA) cadre. (SDAs are in any case very thin on the ground in Mutomo Division.)
- It involves a very much higher ratio of coordinators to groups (1:83) than is envisaged in the rest of the District (where the CETS will operate through existing SDAs and Adult Education teachers).

E. It has been agreed that the group mobilisation approach being developed in Mutomo should be allowed to continue on a pilot basis until 1991. In this way the recently recruited and trained coordinators will be given a chance to prove themselves, and valuable lessons may be learned by comparing Mutomo's experience with that of the rest of the District.

F. Accordingly, an independent evaluation of the group mobilisation work in Mutomo Division will be undertaken during 1990. This will provide guidelines for subsequent community education and training work both in Mutomo Division and in the rest of Kitui District. Detailed terms of reference will be drawn up once the Programme Management Unit and the two Sections most concerned with the issue (Survey and Monitoring and Community Education and Training) are in place.

VIII. WATER PROGRAMME SPECIAL STUDIES

The Water Programme Coordination Unit of KIDP is responsible for planning, monitoring and coordinating the Programme's support for water conservation. Implementation is through the Ministries of Water Development and Agriculture. KIDP will finance, and the WPCU will oversee, a number of special studies that have a direct bearing on medium-term water development strategy for the District. Three such studies are planned: a study of groundwater potential, an evaluation of sub-surface and sand dams and a study of spring development potential.

A. GROUNDWATER POTENTIAL IN KITUI DISTRICT

Introduction

Current opinion holds that the use of deeper groundwater is limited by the possibility of encountering saline water, or that yields are too low. A brief analysis of borehole data (see the Technical Note below) shows that this is far from necessarily being the case: out of a sample of approximately 50 boreholes, nearly 40 yielded better than 0.5m³/hr of potable water, as against 10 which though of adequate yield, were too saline for potable use. Yields in Kitui are generally better than 20m³/day, which is more than sufficient for hand-pumped supply.

The Danida Appraisal Report for the KIDP was outspoken on the choice of boreholes as being 'high level' technology. As demonstrated, however, by numerous projects elsewhere in Kenya, boreholes can be a viable option for safe and permanent water for rural areas. It may be that, at least in certain areas of the District, only boreholes offer the possibility of a continued supply in the driest periods.

The spatial distribution of the salinity hazard is unclear - it may be related to topography or geology, or a combination of both. Certainly the subdued, flatter parts in the east of the District appear to suffer from salinity more than the elevated western parts, but the mechanisms and geographical distribution remain unclear.

In view of these uncertainties and the potential importance of groundwater, a systematic investigation of potential for groundwater is planned.

Objectives of the Special Study

This Study aims to evaluate the groundwater potential with particular respect to the geographical distribution of the salinity hazard and yields, and will indicate relative availability of groundwater throughout the District.

Study methodology

The Study will comprise two phases, with an optional third phase:

Phase I. Inventory and Selection of Pilot Areas

The first phase will involve the collection and verification of all relevant data concerning boreholes, water quality and geology from literature and archive sources. This element is little more than an exhaustive check on existing data.

Once basic data have been acquired, a field check of all the boreholes in the District will be undertaken; this will include sampling of boreholes and springs for water quality analyses, and the testing of borehole yields where possible.

On the basis of the results of the inventory and desk studies, a number (3 or 4) of pilot areas will be selected for detailed investigation. Selection criteria will include:

- areas with no other viable options for water supply;
- areas where groundwater looks a particularly good option;
- areas where groundwater salinity is a particular problem;
- areas where permanent and high yields of safe water are required (such as at hospitals).

Phase II. Pilot Area Investigations

After active consultation and agreement with the Water Programme Coordination Unit, detailed Pilot Site Investigations will be carried out in 3 or 4 agreed areas. This will be primarily a field exercise, and will comprise the following stages to be followed for each Pilot Area:

- (a) Geological interpretation of aerial photographs to determine possible aquiferous zones (lineations, fault zones, etc).
- (b) Fieldwork comprising detailed geological mapping followed by geophysical profiling and depth-probing with suitable tools.
- (c) Interpretation and analysis, followed by recommendations for drilling locations.

In the wake of Phase II it is recommended that a number of Pilot Boreholes be drilled; although exploratory in nature, they will be completed, if sufficient water is struck, so as to enable a hand-pump installation to be constructed.

Cost Estimate

The estimate given here provides an order of magnitude indication of the cost of this exercise if subcontracted to a qualified local consultant.

Phase Item	Approx. cost Ksh.
I Desk study and field inventory	200 000
II Detailed investigations in pilot areas	300 000
III Exploratory drilling (2 boreholes)	500 000
Total	1 000 000

B. EVALUATION OF SUB-SURFACE AND SAND DAMSIntroduction

The existing level of construction of groundwater dams (GWDs - i.e. sand dams (S/Ds) and sub-surface dams (SS/Ds)) in Kitui District is testimony to the belief that these structures hold a key to improved community water supply.

However, there is much debate over the real usefulness of these structures - there are many examples of GWDs that have failed to supply adequate yields of water throughout the dry season.

Objectives of the Special Study

The objectives of the Special Study on GWDs are:

- A critical assessment of the role, usefulness and application of GWDs in the KIDP.
- A technical study of the aspects which affect GWD success or failure (i.e. hydrometeorology, geology, soil conservation, sedimentation, hydrogeology, construction and abstraction techniques) with particular reference to their use and potential in Kitui District.
- The establishment of a standard approach to siting, construction, operation and management of GWDs.

Study Methodology

The Study will comprise two phases;

Phase I - Construction of a Sand Dam

Under close control of the study a sand dam will be build, and from the start of field activities the emphasis will be on data collection and monitoring. There will be 3 distinct parts in this Phase:

- (a) Site selection: a precise site for the S/D will be selected, on the grounds of catchment, hydrogeological and user criteria. This phase will include catchment and reservoir basin mapping and evaluation; design of the structure; costing and structuring of the construction programme; and establishment of a small rainfall, stream flow, groundwater level and sediment load monitoring network.
- (b) Construction stage: actual construction of the S/D will be closely monitored. Tubewell screens to be used as piezometers will be installed at locations downstream of and along the dam wall, within the sand reservoir and in the influent stream bed. A sediment sampling structure must be designed and built behind the dam wall; this must allow sampling of the sand as it is laid down over successive flood periods.
- (c) Post-construction monitoring stage: the final phase will comprise monitoring the filling of the sand reservoir and raising of the dam wall and continued monitoring of catchment, hydrological and hydrogeological variables.

Phase II - Field Evaluation of GWDs in Kitui District

An extensive field study will evaluate 6 to 10 existing GWDs in varying states of repair and in a variety of environments. Two distinct parts exist for this phase:

- (a) Preliminary evaluation: sites will be selected and semi-detailed catchment, hydrometeorological and hydrogeological studies will be undertaken. Sand basin contours and the catchment area will be mapped, a monitoring network established and particle size distribution data collected. Piezometers will be installed and monitored regularly.
- (b) Monitoring and evaluation: the second part will involve assessing the data and continuing monitoring through at least one full hydrological year (better still would be a 14-month monitoring programme). From data acquired during the first phase, accurate porosity, transmissivity and storativity information should be obtained, and the total "live" storage of the structure calculated. Water level variation over time, losses to sub-surface percolation (both beneath the dam and to deeper groundwater), and evaporation must also be monitored, for which abstraction data must be collected.

Cost Estimate

The estimate given here provides an order of magnitude indication of the cost of this study if subcontracted to a suitably qualified Kenyan research organisation.

Phase	Item	Approx. cost Ksh.
I	Pilot Project	500 000
II	Field evaluation of GWDs	200 000
	Total	700 000

The study's duration might be up to two or three years for the activities described under the first phase, and rather less than 18 months for the second phase. Project planning will have to allow for rainy seasons.

C. STUDY OF SPRING DEVELOPMENT POTENTIAL

Introduction

The Appraisal Report (April 1989) stated that high priority would be given to piped gravity schemes from springs whenever feasible (4.5.2.2.). The indicative water development targets in the Appraisal Report (Table 4.5.2.1) estimated that some 40 per cent of the supply would be derived from this source over the five-year Programme. The Appraisal Report also gave emphasis to the protection of hill catchments, a major objective of the Forestry component of the Programme.

However, in the work plans set out in the Plan of Operations (Chapters 6 and 7), spring development has been given little emphasis. The downgrading of this type of water source was based on the finding by the Consultant on the Plan of Operations team that the potential for additional piped supplies from perennial springs was relatively limited in Kyuso, Mutito, Mwingi and Mutomo Divisions. However, this finding has been questioned by Danida in their review of the Draft Plan of Operations and it is proposed that a special investigation be carried out to resolve the matter during PY1.

The Appraisal Report (para. 5.1.1.2) states:

Piped gravity supplies from springs transfer high quality water from perennial springs on the hillsides of inselbergs and escarpments to the lower lying consumption areas on the foot-slopes and plains. In Kitui District, springs are mainly located in five areas: Mumoni, Nuu, Endau and Mutha Hills as well as the north south escarpments separating Central and Mutito Divisions. The largest of the springs has already been developed.

However, some of these schemes could be extended. There are still a number of medium-sized and minor perennial springs in these areas that could be developed. Investigation of these sources should be given high priority due to their perennial character, their high water quality and their relatively low development cost per cubic metre supplied per day. Due to the high quality of the water, these sources should preferably be reserved for human consumption.

Objectives of the Special Study

1. To prepare an inventory of piped gravity supplies from perennial springs serving a population of 50 people or more in the District together with an assessment of the quantity and quality of water provided at each site, standards of operation and maintenance and the potential for improvement by rehabilitation and/or extension.
2. To determine the potential for the development of piped gravity supplies from perennial springs in the District previously unexploited.

3. After consultations with the WPCU, prepare outline designs of at least two feasible schemes. These would incorporate estimated discharges, costs of construction and maintenance and proposals for construction and maintenance by the community served.

Arrangements for Implementation

The study should be carried out at the end of the dry season (i.e. August - September, in a normal year). The study should be carried out, in close consultation with the WPCU and the District Water Engineer, by an appropriately qualified water engineer with experience of both the environmental conditions and intermediate technology. The study would be financed separately from Danida's technical assistance budget for KIDP.

Technical Note: Deeper Groundwater in Kitui District

Introduction and Background

Current opinion regarding the use of deeper groundwater in Kitui District tends to focus on the problems brought about by:

- (a) saline and non-potable groundwater, and
- (b) poor yields.

Although it is true that these are both limiting factors, the problems are probably not as extensive as seems to be thought; this Note attempts to provide a balanced assessment, using a nearly-complete database of borehole information using subjective and analytical indices of water quality, and defining a successful borehole as having a yield greater than 0.5 m³/hr (0.15 lps).

Data

A database has been compiled from MOWD Files and from the reports prepared by Louis Berger Inc. during the USAID ASAL project. Although not complete, it probably represents 80 - 90% of the total number of boreholes in Kitui District.

Data integrity is known to be uncertain; where possible, data have been cross-checked and where anomalies exist the most "reasonable" data have been used. A total of 106 boreholes have been analysed; summary data are presented in Table 1 below.

Water quality, borehole yield and groundwater potential

Water quality data are relatively incomplete: 62 out of 106 borehole data sets included sufficient information on water quality for inclusion in this analysis, while 84 out of 106 sets gave borehole commissioning yields (see Table 1).

This data has been further sorted to reject all boreholes which are dry, have no water quality data or yield less than 0.5 m³/hr. Table 2 shows this.

This shows that of the 49 boreholes yielding greater than 0.5 m³/hr for which water quality data were available, 38 (78%) yielded potable water and the remaining 11 (22%) yielded water unsuitable for human consumption.

Table 1 - Summary Borehole Data

Parameter:				
	Total Depth (m)	Deepest Struck Level (m bgl)	Rest Level (m bgl)	Yield (m ³ /h)
Mean	84.2	48.8	21.5	4.06
Standard Dev.	40.3	37.4	18.6	5.9
Coeff. Var.	0.48	0.77	0.86	1.44
Maximum	98.2	173.0	75.0	37.1
Minimum	6.4	3.0	0.6	0.0
Sample size	98	76	70	84

Boreholes for which no data exists:	27	25.5%	} rejected - } see below
" which were dry:	10	9.4%	
" which yielded less than 0.5m ³ /hr	13	12.3%	
" which yielded more than 0.5m ³ /hr	56	52.8%	

Potable Water	50 boreholes
Non-potable Water	12 boreholes
Total	62

Table 2 - Data when Quality and Yield Determinands are Included

Parameter:	Total Depth, (m)	Deepest Struck Level, (m bgl)	Rest Level, (m bgl)	Yield, (m ³ /hr)
Mean	91.9	54.2	20.1	5.4
Standard Dev.	33.9	41.4	16.9	5.1
Coeff. Var.	0.37	0.76	0.84	0.95
Maximum	174	173	67	20.5
Minimum	22.2	3.0	0.6	0.5
Sample size	49	47	46	49
=====				
Potable Water:	38 boreholes			
Non-potable Water:	11 boreholes			
Total	49			

Spatial variation

Data analysis to date shows no particular pattern of salinity concentration, though there are loci at Nguni/Enziu, Endau and Mutomo.

Yield variation is apparently random - the incidence of dry holes does not appear to follow any particular pattern and more likely reflects borehole siting inadequacies than it does variation in yield.

Conclusions

From this rather coarse analysis of readily available data, it seems clear that there is better potential for boreholes yielding reasonable quantities of potable water than has hitherto been credited.

This supports the case for the proposed special study to analyse and hopefully quantify and qualify salinity variation and, insofar as they exist, variations in yield across the District.

IX. SITE SURVEY CONSULTANT

Functions and activities

A. The Site Survey Consultant (SSC) will make technical appraisals and assessments of the water development activities to be financed by KIDP. In advance of construction, a detailed site survey will be made and a detailed estimate of costs prepared together with a schedule of materials, labour (skilled and manual) and transport requirements for completion. Implementation schedules will also be prepared.

Responsibility

B. The SSC will be contracted by the PMU to work in the Water Programme Coordination Unit under the supervision of the Senior Water Engineer. He/she will operate in close cooperation with the Assistant Construction Supervisors at Divisional level.

Support facilities

C. Transport facilities (1 hardtop 4WD) and field equipment (surveying equipment) will be made available by the WPCU. The consultant will recruit his/her own field assistants.

Qualifications

D. The SSC will be an engineer with suitable experience in the engineering and construction of small-scale rural water supply systems in arid and semi-arid areas. He/she will be familiar with site selection and construction of spring protection and gravity pipelines, rock catchments, shallow wells, sand and sub-surface dams, small and medium earth dams, tubewells, boreholes and roof catchment systems. His/her team will consist of technicians and/or artisans with adequate experience.

Working periods

E. The amount of work does not require the SSC to be permanently available. A schedule of two months on and two months off is thought to be adequate, but could be adapted if necessary.

Annex B

Programme Hired Staff

The following tables show staff currently in post and numbers planned for future years.

	<u>Year:</u>	89/90	90/91	91/92	92/93	93/94	94/95
	Start-up	PY1	PY2	PY3	PY4	PY5	
1. KIDP							
Programme Officer*	1	1	1	1	1	1	1
Programme Coordinator#	1	1	1	1	1	1	1
Senior Admin. Officer@	1	1	1	1	1	1	1
Programme Accountant@	1	1	1	1	1	1	1
Computer Officer@	1	1	1	1	1	1	1
Computer Operator*	1	1	1	1	1	1	1
Admin. Officer (Kitui)**	1	1	1	1	1	1	1
Admin. Assts** (Kyuso, Mwingi, Mutomo)	3	3	3	3	3	3	3
Accounts Clerk*	1	1	1	1	1	1	1
Typist*	2	2	2	2	2	2	2
Telephone Operator*	1	1	1	1	1	1	1
Clerk*	1	1	1	1	1	1	1
Messengers*	3	3	3	3	3	3	3
Storekeeper*	1	1	1	1	1	1	1
Guest house janitor*	1	1	1	1	1	1	1
Drivers*	2	2	2	2	2	2	2
Loaders*	2	2	2	2	2	2	2
S&M Officer @	-	1	1	1	1	1	1
S&M Adviser#	1	1	1	1	1	1	1
S&M Assistants**	-	4	5	5	5	5	5
Senior Training Officer@	1	1	1	1	1	1	1
Asst. Training Officers**	4	4	5	5	5	5	5
Senior Water Engineer#	1	1	1	1	1	1	1
Site Survey Adviser@@	1	1	1	1	1	1	1
Asst. Construction Supervisors**	-	4	4	4	4	4	4
Livestock Dev. Officer@	1	1	1	1	1	1	1

Key: # Danida Technical Assistant
* MRDASAW staff

@@ Part-time local consultant
@ Kenyan expert
** "other personnel" (see para. 3.29, Chapter 3, Volume I) paid by Danida

YEAR:	88/89	89/90	90/91	91/92	92/93	93/94
2. MUTOMO						
<u>Administration</u>						
Project Coordinator	1	-	-	-	-	-
Interim Coordinator	-	1	-	-	-	-
Senior Admin. Officer	1	1	-	-	-	-
Accountant	1	1	-	-	-	-
Accounts Clerk	1	1	-	-	-	-
Senior Storekeeper	1	1	-	-	-	-
Stores Clerks	2	2	-	-	-	-
Typist/Receptionist	1	1	-	-	-	-
Typists	3	3	-	-	-	-
Messenger	1	1	-	-	-	-
Watchmen/gatekeepers	6	6	-	-	-	-
<u>Workshop</u>						
Foreman	1	1	1	-	-	-
Asst. Foreman	1	1	1	-	-	-
Mechanics	4	3	3	-	-	-
Trainees	3	3	3	-	-	-
Stores Clerks	3	3	3	-	-	-
<u>Drivers</u>						
Vehicle Drivers	10	10	10	-	-	-
Tractor Drivers	6	6	6	-	-	-
<u>Monitoring Unit</u>						
Sociologist	1	1	-	-	-	-
Field Assistant	1	1	-	-	-	-
Water Monitor	1	1	-	-	-	-
<u>Training Section</u>						
Senior Training Officer	1	1	1	-	-	-
Asst. Training Officer	1	1	1	-	-	-
Senior Group Coordinator	1	1	1	-	-	-
Group Coordinators	16	16	16	-	-	-
<u>Water Construction Section</u>						
Construction Foreman	1	1	-	-	-	-
Jnr Construction Foremen	3	3	-	-	-	-
Fundis: Masons	26	26	-	-	-	-
Carpenters	9	9	-	-	-	-
Plumbers	7	7	-	-	-	-
Maintenance	3	3	-	-	-	-
Storekeeper	1	1	-	-	-	-

<u>Year:</u>	88/89	89/90	90/91	91/92	92/93	93/94
2. <u>MUTOMO</u> (cont.)						
<u>Soil Conservation & Extension</u>						
Farm/Nursery Foremen	3	3	2	-	-	-
Accountant/Storekeeper	1	1	-	-	-	-
Farm/Nursery Workers	24	24	12	-	-	-
JTAs	15	15	15	-	-	-
Watchmen	4	4	4	-	-	-
<u>Small Farmer Mech. Unit</u>						
Animal Traction Assistants	2	2	2	-	-	-
Project Technical Officer	1	1	-	-	-	-

Annex H

Guidelines for Incorporating MSWCP into KIDP

Introduction

Mutomo Soil and Water Conservation Project is a large organisation, with annual expenditures of over Ksh 10m, and a project-paid staff of over 170 (see Fig. 1, Organisation Chart). It has been decided that MSWCP will be integrated into KIDP and will therefore come within the organisational structure described in Chapter 3, Volume I of the Plan of Operations. However, it is recognised that the integration of MSWCP with KIDP needs to be carefully managed if it is to avoid disruption of continuing development activities in Mutomo Division. The various sectoral Chapters of the Plan of Operations have included discussion of Mutomo Division activities. The purpose of this Annex is to bring together a general summary of the plans for MSWCP's incorporation in KIDP.

Transitional Issues

A potential complication is that there may be some delay before KIDP's Programme Management Unit is properly staffed and operational. Transitional arrangements in the start-up period (1 January - 30 June 1990) include:

- (a) The appointment of an Interim Project Coordinator for MSWCP.
- (b) The appointment of an accountant to supervise MSWCP's financial affairs while also helping to establish KIDP's financial management system.

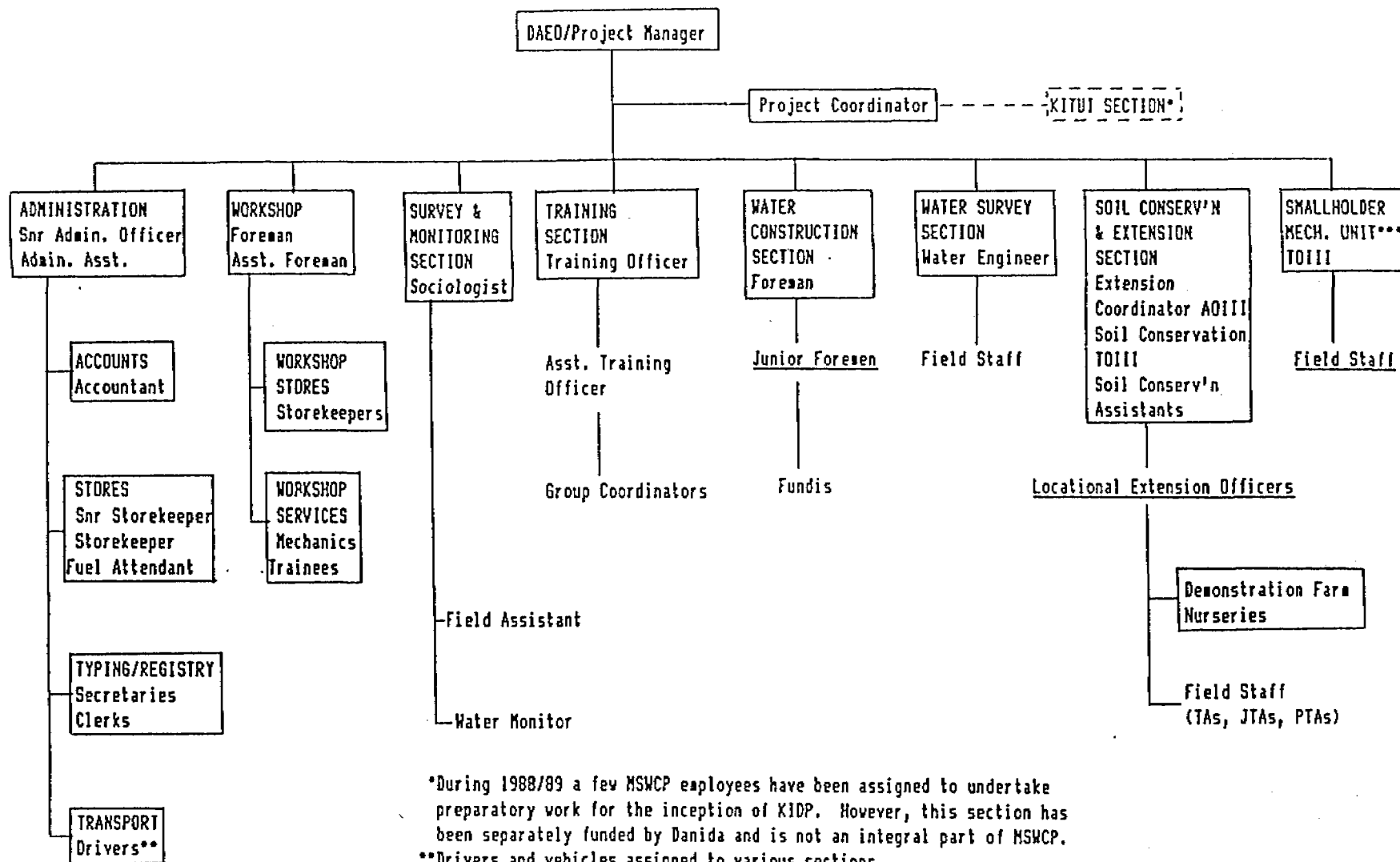
The substantive transfer of control and direction of MSWCP activities from Mutomo to Kitui will take place on 1 July 1990 from which date funding for MSWCP will be routed through KIDP.

Project Employees

KIDP intends to be much less reliant on project employees than MSWCP has been. Most of the present MSWCP project-paid jobs will be phased out. MSWCP staff will be eligible to apply for, but cannot be assured of, employment under KIDP. (A schedule of project-paid posts in KIDP is given in Annex G.) The speed with which project-paid jobs in Mutomo are to be phased out varies according to the branch of MSWCP involved. The following paragraphs deal in turn with each of the organisational units shown in Figure 1.

Administration. Administrative staff will be retained during 1989/90. By the end of that year, it is expected that the administration will have been fully integrated with KIDP's.

FIGURE 1: MSWCP ORGANISATION CHART



*During 1988/89 a few MSWCP employees have been assigned to undertake preparatory work for the inception of KIDP. However, this section has been separately funded by Danida and is not an integral part of MSWCP.
 **Drivers and vehicles assigned to various sections.
 *** Also known as RTDU - Rural Technological Development Unit.

Workshop. The workshop is to be taken over by MOA by the beginning of KIDP PY2. Meanwhile there will be a phased reduction in the number of mechanics employed.

Survey and Monitoring Section. The three posts in this section will be retained during 1989/90. The S&M staff will come under the direction of the KIDP Survey and Monitoring Section as soon as it is established.

Training and Mobilisation Section. As explained in Volume I, Chapter 5 of the Plan of Operations, it is considered that Mutomo's initiative in employing Group Coordinators should be allowed a proper trial. Accordingly, the existing staff of the section will be retained through 1989/90 and 1990/91. (However, any casual vacancies that arise will not be filled.) As soon as KIDP's Community Education and Training Section is established, the Mutomo Training and Mobilisation staff will come under its direction.

Water Section. Employment of staff by MSWCP in this section will have almost entirely ceased by the end of 1990/91 - see the cost tables in Annex L for details.

Soil Conservation. Project JTAs will be phased out by 1991/92 and other project employees involved in the demonstration farm and small farmer mechanisation unit will be phased out by the end of 1990/91; details of the proposed reductions are shown in cost tables in Annex L. From 1991/92 casual labour will be used for farm trials and other inputs.

Vehicles and Equipment

A list of MSWCP's current fleet and equipment is given in Tables 1 and 2 below. In future, vehicles assigned to Government departments will bear GK plates. (MSWCP's existing fleet is all in private registration.) Early in the start-up period (1 January - 30 June 1990) an exercise will be conducted to determine the future disposition of MSWCP's vehicles and equipment. Transfer of vehicles to GOK will reduce the need for project-paid drivers, and some of MSWCP's existing drivers may be transferred (voluntarily) to serve the vehicles allocated to Technical Assistance Personnel in Kitui.

Table 1: MSNCP VehiclesMotorbikes

Reg. no.	Type	Date of purchase	Deploy-ment	Condition
KXK 900	TS.125 ER. TYPE SF.11A	1986	LEO	FAIR
KUF 752	TF.125 C.C.1	1982	CDA	POOR
KXK 893	TS.125 ER. TYPE SF.11A	1986	FOREMAN	FAIR
KXK 891	TS.125 ER. TYPE SF.11A	1986	FOREMAN	FAIR
KXK 892	TS.125 ER. TYPE SF.11A	1986	FOREMAN	FAIR
KUF 756	TF.125 C.C.1	1982	PGC	POOR
KUE 769	TF.100 C.C.1	1981	MAINT'CE	POOR
KUF 750	TF.125 C.C.1	1982	TA	POOR
KXK 895	TS.125 ER. TYPE SF.11A	1986	LEO	FAIR
KXK 899	TS.125 ER. TYPE SF.11A	1986	LEO	FAIR
KUF 748	TF.100 C.C.1	1982	PTA	POOR
KUF 749	TF.100 C.C.1	1982	TA	POOR
KXK 897	TS.125 ER. TYPE SF.11A	1986	PGC	FAIR
KUF 751	TF.100 C.C.1	1982	PGC	POOR
KXK 896	TS.125 ER. TYPE SF.11A	1986	W/SHOP	GROUNDED
KXK 898	TS.125 ER. TYPE SF.11A	1986	FOREMAN	FAIR
KUT 769	TF.125 C.C.1	1984	TA	POOR
KUT 766	TF.100 C.C.1	1984	MAINT.FUNDI	POOR
KUF 753	TF.125 C.C.1	1982	MONITORING	POOR
KXV 770	TS.125 ER. TYPE SF.11A	1987	FOREMAN	FAIR
KXV 772	TS.125 ER. TYPE SF.11A	1987	TA	GOOD
KUF 754	TF.125 C.C.1	1982	MAINT.FUNDI	POOR
KUQ 759	TS.125 ER. TYPE SF.11A	1983	AT	FAIR
KUT 755	TF.125 C.C.1	1984	CHIEF	POOR
KUE 770	TF.125 C.C.1	1981	PGC	POOR
KUF 768	TF.100 C.C.1	1982	SHMU	POOR
KUF 747	TF.125 C.C.1	1982	PTA	POOR
KUT 770	TF.125 C.C.1	1984	TA	POOR
KXK 894	TS.125 ER. TYPE SF.11A	1986	DRG	FAIR
KUF 767	TF.100 C.C.1	1982	PGC	FAIR
KYC 790	TS.125 ER. TYPE SF.11A	1987	TA	GOOD
KYC 788	TS.125 ER. TYPE SF.11A	1987	TA	GOOD
KYC 785	TS.125 ER. TYPE SF.11A	1987	TA	FAIR
KYC 787	TS.125 ER. TYPE SF.11A	1987	SCO	FAIR
KYT 752	TF.125	1988	W/SHOP	GOOD
KYT 749	TF.125	1988	LEO	GOOD
KYT 750	TF.125	1988	LEO	GOOD
KYT 751	TF.125	1988	PTO	GOOD

Table 1: (cont.)Vehicles and Tractors

Reg. no.	Type	Date of purchase	Deployment	Condition
KUE 258	L/Cruiser p/u HJ 47 RP-K Engine 2H	1982	SHMU/Livestock	POOR
KWP 933	L/Cruiser p/u HJ 47 RP-K Engine 2H	1984	Water Survey	FAIR
KXG 645	L/Cruiser p/u HJ 75 RP-KR Engine 2H	1986	SC	GOOD
KWX 180	L/Cruiser h/t HJ 75 RP-KR Engine 2H	1985	Training/Socio	GOOD
KUU 497	Canter 4D 30	1983	Construction	POOR
KYN 533	Canter 4D 30	1987	"	GOOD
KWY 681	Canter 4D 30	1985	"	FAIR
KUF 552	Hino KR 360	1982	"	FAIR
KVN 749	L/Rover Series III 109	1979	Workshop	GROUNDING
KWD 804	Ford Tractor 3910	1983	Construction	POOR
KYH 215	" " 3910	1987	"	GOOD
KXU 146	" " 3910	1986	"	GOOD
KTU 513	" " 3600	1980	"	POOR
KUD 869	" " 5600	1982	"	FAIR
KWW 531	" " 4610	1985	"	FAIR
KUG 203	" " 4600	1982	"	FAIR
KUJ 994	L/Cruiser HJ 47 RV Engine 2H	1982	"	POOR
KYS 571	L/Cruiser h/t	1988	"	GOOD
KYS 572	L/Cruiser p/u	1988	Construction	GOOD
KYS 573	L/Cruiser h/t	1988	Construction	GOOD

p/u: pick-up

h/t: hard-top

Canter: 3 1/2 ton lorry

Hinos: 7 ton lorry

Table 2: MSWCP EquipmentBowers, Trailers and Machines

Item	Total No.	Functional	Non- Functional	Acquired
Water pumps	8	4	4	4/87
Bowers	5	4	1	
Trailers	7	7	0	1/87
Concrete mixers	6	5	1	
Engine for mixer machine	1	1	0	
Pioneer pneumatic drills	3	2	1	1/87
Petrol generators	1	1	0	
Compressors	2	2	0	1/88
Transformer	1	1	0	
Lister Machine (generator) BB 649 Engine 3204-2B3 ST303	1	1	0	1983

Office equipment

photocopier	1			
Typewriters	6			
Tables	51 (+ 1 to LED Voo)			
Chairs: wooden	48 (+ ones for guest house)			
typists'	15			
office	16			
G.K.	9			
high chairs	2			
high stools	7			
stools	1			
sofa sets	2			
Filing cabinets	9			

Annex I

References

- Adams 1989 Kitui ASAL Programme: Livestock Sector Study (draft), prepared for Danida by M E Adams, April 1989.
- Conway 1989 Rapid Rural Appraisal for Sustainable Development, G R Conway et al., IIED Conference on Sustainable Development, IIED, London 1989.
- Danida 1987 Evaluation Report of MSWCP, Banda ref. No. 104. Ken.89, December 1987.
- Danida 1988 Kenya: Kitui Arid and Semi-Arid Lands Development Programme: Pre-appraisal Report Prepared for Danida by a Mission Visiting Kenya 23 January to 10 February 1988. March 1988.
- Danida 1989 Kitui Arid and Semi-Arid Lands Development Programme. Danida Appraisal Report.
- EEC 1989 ASAL Livestock Development Programme, Draft Financing Proposal, 6th EDF (Lome III), Commission of the European Communities, Brussels, July 1989.
- GOK 1979 Arid and Semi-Arid Lands Development in Kenya: the Framework for Implementation, Programme Planning and Evaluation.
- GOK 1987 District Focus for Rural Development.
- GOK 1989 National Development Plan 1989-93.
- Kenya Forest Dept. Policy of the Forest Department in Social Forestry, C R J Nyaga, Director of Forestry; Kenya National Social Forestry Seminar, Muruga, August 1988.
- MOA Plan of Operation 1989/90-1991/92, Soil and Water Conservation Project (SIDA), Agricultural Engineering Division, Soil and Water Conservation Branch, MOA.
- Ministry of Agric., Animal Husbandry & Water Resources, 1962 African Land Development in Kenya, 1946-62.
- MOF 1988 Treasury Circular No. 3: Procedure for Direct Payment under Donor-Funded Projects. 8 February 1988.
- MOPND 1989 Kitui District Development Plan 1989-93.

- Mutiso et al. 1988 Formulation Mission for ASAL Development Program in Elgeyo Marakwit, October 1988. G. Mutiso (Team Leader) et al. 1988
- Nissen Petersen 1989 Evaluation of USAID ASAL Programme Water Projects in Kitui District. Prepared for Danida by Erik Nissen Petersen, 1989.
- USAID 1983 Kitui District Resources Study, Louis Berger Int., Nairobi 1983.
- Weisel 1985 Interim Evaluation of the Kitui ASAL Project Phase II. Peter Weisel, USAID/Kenya, July 1985.
- Wily 1989 The Socio-Economy of Livestock-Keeping in Kitui District. (Annex 2, Danida Kitui ASAL Programme: Livestock Sector Study, Adams), April 1989.
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Annex J

Procurement, Disbursement & Accounting

Objectives

1. Procurement, disbursement and accounting procedures are intended to:
 - facilitate timely and cost-effective procurement of goods and services for the Programme;
 - ensure proper accountability for, and control of, project resources;
 - match standard Government procedures as far as possible;
 - provide adequate financial management information to the Programme itself;
 - ensure that all Programme expenditures are duly authorised through the GOK Estimates and recorded in the GOK Accounts;
 - ensure prompt and adequate documentation of expenditures for Danida and hence timely replenishment of the initial Programme advance.

Applicable Regulations

2. The procedures outlined below are intended to follow Treasury Circular No. 3 (1988) Procedure for Direct Payment under Donor Funded Projects and Treasury Circular No. 5 (1987) as regards procurement. International procurement will follow Danida procedures for competitive bidding.
3. If a general agreement is reached between the Government of Kenya and the involved international development agencies on a new, general procedure for the disbursement of funds under the National ASAL Programme, such procedure will also apply to KIDP, and may supersede the procedures outlined below.

Forms of Disbursement

4. Danida's budgeted contribution^[1] to the Programme will be effected either:

- (a) through direct payment overseas by Danida for international procurement, in which case actual expenditures will be reported by Danida so as to enable GOK to account for the expenditure as Appropriation-in-Aid; or,
- (b) through payments from a Programme bank account, following procedures described below; again, such expenditures will be recorded in the GOK accounts as Appropriation-in-Aid.

KIDP Bank Account: Imprest and Replenishment

5. Danida will make an initial advance of Ksh. 10m to a Kitui Integrated Development Programme account opened at a commercial bank in Kitui.^[2]

6. The account will be replenished by Danida upon receipt of a request for reimbursement of expenses actually incurred; the request will be supported by satisfactory documentation of the expenditure (see below) and will be routed through MOPND and the External Resources Department to Danida.

7. Drawings on the Programme's bank account will require the signatures of both the Danida Programme Coordinator and the GOK Programme Officer or their designated alternates. (The District Accountant may be a designated alternate to the Programme Officer.)

Reflection of KIDP Budget in the Development Estimates

8. Estimates for KIDP will appear under the respective implementing Ministries' development votes. The costs of the Programme Management Unit will appear in the Development Estimates of the Ministry of Planning and National Development. The amounts that appear in the Development Estimates will correspond to the sums approved in KIDP's Annual Work Plan and Budget; the latter will give a detailed breakdown of expenditures within each component of the Programme.

[1] Danida will directly finance the costs of the Danida Technical Advisors and of agreed external consultancies. These costs are not included within the budgeted allocation to the Programme of 96.6 million Danish crowns for Phase 1, and will not be subject to the procedures described in this Annex.

[2] Formally, the External Resources Department of the Ministry of Finance will request the advance from Danida once KIDP has appeared in the 1989/90 Development Estimates. (Signature of the Project Agreement is also a prerequisite.)

Authorisation and Payment

9. The PMU will include an accounting unit, headed by an Accountant, which will be responsible for supervision of the financial administration of the Programme.

10. Payments to Programme-employed staff will be effected directly by the PMU.

11. Payment of approved allowances (travel and subsistence) will also be processed by the PMU, based on the approved Government claim forms.

12. The PMU will design and procure Local Purchase Order and Local Service Order books similar to those of Government (and to those already in use by other ASAL programmes). These will be accountable documents and will be issued to the responsible officers in the participating Ministries. LPOs and LSOs will be validated as follows:

- Authorised officers in each Ministry will initiate procurement by indicating their requirements on the LPO/LSO forms. They will ensure that the procedures prescribed in District Focus for Rural Development have been followed. They will also sign to indicate that the indented materials are necessary for the implementation of their sector projects and have been approved and included in the Annual Work Plan and Budget.
- Implementing Ministries will forward the purchase orders to the PMU which will:
 - (a) examine the order and, upon satisfaction, commit the funds against the relevant budget item within the Kitui Integrated Development Programme vote book;
 - (b) submit the LPO/LSO to the Programme Officer and Programme Coordinator, who will jointly authorise the order.
- The PMU will return the order book to the implementing Ministry, which will in turn issue the authorised LPO/LSO to the supplier.
- Suppliers will provide goods or services to the implementing ministries, to which they will also submit invoices so that the ministries can initiate the payment procedure.
- Upon receipt of invoices, each implementing officer⁽³⁾ will prepare and endorse all the payment vouchers relating to KIDP expenditures. He will further ensure that all the relevant supporting documents are attached to the payment voucher, and that all the necessary certificates are signed.

[3] Implementing Officers will usually be the District Head of Department of a participating Ministry, but, in certain cases, expenditures may be authorised by other implementing officers, e.g. at Divisional level.

- The payment vouchers and supporting documentation will be taken to the PMU's accounts unit for examination and vote book control.
- The PMU accounts unit will arrange, via the District Accountant, for auditing of the payment vouchers by the District Internal Auditor.
- The PMU accounts unit will prepare cheques for signature by the Programme Officer and Programme Coordinator.
- Records of authorisations and payments will be copied to the District Accountant, who will record expenditures as Appropriations-in-Aid against the appropriate items in the Development Budget.
- The PMU will regularly forward copies of paid-up payment vouchers via the Ministry of Reclamation and Development of Arid and Semi-Arid and Wastelands to the Ministry of Finance (External Resources Department), with a copy of the accompanying letter to the Danida Mission in Nairobi. The External Resources Department will request reimbursement from Danida.
- Danida, upon satisfaction, will transmit additional funds to the Programme's bank account in Kitui. The notification of replenishment by Danida will be copied to the External Resources Department, to the Ministry of Reclamation and Development of Arid and Semi-Arid and Wastelands and to the District Accountant, Kitui.

Financial Records

13. The PMU will maintain records of expenditure and commitments that duplicate the records of the District Accountant, but it will also maintain records in a more detailed form so as to enable:

- (a) comparison of expenditures against commitments in respect of the programme and sub-programme details shown in the Annual Work Plan and Budget;
- (b) reporting of expenditure in accordance with the expenditure codes stipulated by Danida.

14. The PMU accounting unit will produce monthly computer statements of expenditures by programme and sub-programme in order to facilitate monitoring of implementation of KIDP.

Vehicles, Equipment and Stores

15. The PMU will issue regulations for the control of Programme stores and equipment; these regulations will be no less stringent than the equivalent GOK regulations.

16. Vehicles provided by the Programme and employed in implementing components of the Programme will be eligible to have operating and maintenance costs met from Programme funds *provided:*

- (a) uncommitted funds are available within the implementing agency's KIDP budget for transport, *and*
- (b) the vehicle is duly certified to have been employed on implementing the Programme.

17. A Senior Administrative Officer in the PMU will, *inter alia*, supervise the deployment and maintenance of PMU-registered vehicles and monitor the usage of Programme vehicles assigned to implementing departments on "GK" registration.

18. Vehicle types will be standardised in order to minimise management and maintenance costs.

Annex K

Background and Programme Context

Kitui District^[1]

Kitui District is one of six districts in Kenya's Eastern Province (see Map 1) and has a total area of about 31,000km², but one-fifth of its land area is occupied by the Tsavo East National Park which is outside the scope of the Kitui Integrated Development Programme. The District has five Divisions (Kyuso, Mwingi, Central, Eastern (Mutito) and Southern (Mutomo) - see Map 2), which are administratively divided into 34 locations and 160 sub-locations.

The District's population was 463,283 at the 1979 census and is estimated to have grown to some 686,000 by 1989. Ethnically the overwhelming majority (97%) of this population are Kamba. Kitui Town, the District headquarters, is the only substantial urban community within the District, with a projected 1990 population of 7,279. The only other population centres with more than 1,000 inhabitants are the divisional headquarters of Mwingi (3,809) and Mutito (1,202).

The entire District is arid or semi-arid, and only a very small percentage of its agricultural land is of relatively high potential. There are substantial variations in agro-climatic conditions; broadly speaking the lower terrain in the south and east of the District is increasingly arid while the more elevated parts of the District in the north and west receive more rain and can support a denser population. It should be emphasised, however, that even the relatively more favoured parts of Kitui suffer from low and unreliable rainfall which makes even subsistence agriculture a precarious undertaking.

Water is the major determinant of settlement patterns throughout the District, the key requirements being adequate rainfall to support crops and secure dry-season water supplies for humans and livestock. Most watercourses are seasonal, although there are some perennial springs, and there is a corresponding dependence on river beds and shallow wells during the dry season, when much time and energy has to be expended (mainly by women) on fetching water from considerable distances.

[1] For a comprehensive district profile see Kitui District Development Plan 1989-93, Ministry of Planning and National Development, 1989, from which data quoted in this section are drawn.

Demographic changes both reflect and intensify the pressures on Kitui's natural resources. Population density currently averages around 22 per km², although the average conceals large differences between semi-arid agricultural and arid pastoral areas. The current natural population growth rate implies a doubling of the population every 20 years. There is significant out-migration, especially of men seeking paid employment, but there is also in-migration of agriculturalists from areas (especially of Machakos District which is also predominantly Kamba) where land pressure is even greater than in Kitui. The 1989 national population census should enable a detailed assessment of the impact of demographic pressures on the pattern of settlement across the District.

The level of infrastructure provision in the District reflects the relatively low level of economic development. A recently-constructed tarred road now links Kitui Town to Machakos and thence to the main Nairobi-Mombasa highway, but otherwise the District is served only by earth and gravel rural roads.

Considerable self-help effort has gone into the expansion of educational opportunities in Kitui District. The number of secondary schools has more than doubled over the past six years, but there were secondary school places for only about 30% of primary school leavers. In primary school, nearly as many girls as boys are enrolled, but boys predominate at secondary level. The overall literacy rate among adults is estimated at 55% for men and only 29% for women.

Indicators of the relatively low living standards that are prevalent in Kitui include a high level of infant mortality, estimated at 123 per thousand in 1987. The District regularly experiences food deficits: serious crop failures may be experienced in five out of eight seasons. Famine relief (such as food for work) is frequently necessary. Not much is known in quantitative terms about the distribution of incomes within the District but there is undoubtedly considerable stratification among households in the resources they can command and their ability to withstand the vagaries of their environment.

Socio-Economic Conditions

The economy is best described as agro-pastoral, with crops and livestock both having an important part in the production system. The relative importance between crop and livestock production varies from area to area, depending on local conditions.

The Kitui rural economy is narrowly based. Off-farm activities are few in number and yield low returns for all but a minority. In addition it has been found that these are predominantly taken up by those who are already better off. This includes not only the establishment of canteens and businesses, obviously the preserve of the wealthier farmer, but also bee-keeping, poultry improvement, beer-brewing and the like. The livestock survey^[2] found, for example, that those with no stock or only smallstock rarely undertake bee-keeping.

Crop production (millet, sorghum, maize and pulses) provides the basic food supply, and its primary motivation is for subsistence, although in good years surplus crops will be sold and provide income.

The scarcity of land is increasingly reflected in the desire of farmers to enclose holdings and to invest in soil conservation measures on their land. Soil conservation is mainly carried out by organised *muethya* groups. These self-help groups have an average membership of 25-30, mainly women.

Livestock sales make up for shortfalls in food supply due to low crop production, providing income for food purchases and other routine family costs which might have been paid out of crop sales in a more favourable year. In periods of drought, larger stock owners buy up cattle from small owners.

It is conventional to emphasise the inter-relationship of arable and stock farming in Kitui, and to observe that one is not viable without the other. For the vast majority of Kitui farmers this continues to be true. There have, however, been shifts in emphasis, generally consistent with the continuing commercialisation of the rural Kitui economy. This is perhaps best illustrated in the replacement of milk cows by oxen as the single most widespread reason for keeping livestock: not only does the use of oxen facilitate expanded food production, it also improves the opportunity for crop surpluses. Moreover, there is a small but significant group of Kitui farmers who are able to concentrate on or invest in stock-raising as a separate economic enterprise. Similarly, there is a small but growing number of Kitui farmers who choose to concentrate upon crop production partly at the expense of livestock-keeping. Less intentionally, there is a growing number of poorer farmers who are forced to rely more totally upon crop production. In short, there is evidence that the traditional integrity of the agro-pastoral community may be breaking down.

[2] Livestock Sector Study, Kitui Arid and Semi Arid Lands Development Programme, Danida, April 1989 (prepared by M E Adams and Liz Wily).

The livestock sector in Kitui appears to be going through a period of external pressure due to population growth, loss of access to grazing land and increased requirements for cash expenditures and therefore less saving and investment in stock. Shortage of grazing land affects farmers throughout the District, not just in the central uplands. The enclosure of grazing land confines farmers to their own, often limited, farms. Traditional seasonal grazing areas are being lost due to increased permanent settlement and continuing insecurity in the Eastern State Lands. Within the settled areas, cropping has expanded in favourable rainfall years due to the increased use of oxen for ploughing.

For some years now the major source of initial stock investment has been income from wage employment outside Kitui District (in Nairobi and Mombasa). The outstanding use of livestock incomes is for education, and given the greater opportunities for wage employment education provides, it is not inappropriate to consider it the major investment made by rural households today. Even reinvestment in stock takes second place to this demand.

Out-migration for the purpose of wage employment appears to continue to grow in importance in rural Kitui. Overall two-thirds of all 541 households in the ten villages surveyed had at least one family member absent in employment. Over half were male household heads. Traditionally it has been assumed that the highest proportion of out-migrating labour is from the central uplands where land is short and schooling and the tradition of out-migration are well established. However, the highest level of out-migration was found in a lowland village where 93% of households had at least one member absent. Out-migration, stock ownership, land ownership, and investment in off-farm activities are closely related. Absent household heads, for example, on average own more stock and more land than household heads who are present in the village.

Local Government: Institutional Framework

Districts are now the most important sub-national units of administration in Kenya. The senior representative of the Government in the District is the District Commissioner (DC), and, under the District Focus strategy, he has responsibility for coordinating the work of the various Government departments represented in the District.

There are numerous MOCSS-registered self-help groups in Kitui engaged in various types of self-help work:

- school construction and maintenance
- health centres and dispensaries
- nursery centres
- churches and mosques
- roads
- water supply (dams, wells, etc.)
- latrines
- income-generating activities.

Self-help groups receive grants from government and foreign donors to supplement their own fund-raising activities.

A hierarchy of Development Committees from Sub-Location, to Location, to Division has its apex in the District Development Committee (DDC). These committees provide an opportunity for local views and priorities to be taken into account in the planning and delivery of Government services. At administrative level, the District Executive Committee (a sub-committee of the DDC) brings together all the District Heads of Department each month as a means of coordinating their activities.^[3]

A District Planning Unit (DPU) is headed by the District Development Officer (DDO), who comes under the day-to-day direction of the DC, and is staffed by the ASAL Programme Officer, the District Physical Planner, Valuers, Architects, and the District Statistical Officer. The DPU is the secretariat to the DDC and DEC and is responsible for preparing the District Development Plan.

An important aspect of District Focus has been to locate more financial authority within the District. District Heads are holders of AIEs (Authorities to Incur Expenditure), and all District-level expenditure is processed by the District Treasury, headed by a District Accountant. Procurement below certain ceilings is overseen by the District Tender Board.

National Economic Trends

The 1980s have been a difficult period for the Kenyan economy. A variety of international and domestic factors have made it difficult to maintain the rapid economic growth achieved in previous periods. Kenya has a good record of economic management and has been able to stabilise the economy without reneging on international debt or experiencing the extremes of inflation and currency depreciation. However, fiscal constraints have been very apparent, making it hard to maintain existing Government services and activities, let alone expand them.

The Government's major policy response to this situation was Sessional Paper No. 1 of 1986, Economic Management for Renewed Growth. This set out a twenty-year strategy for the restructuring of the Kenyan economy which is reflected in the National Development Plan for 1989-1993. There is an emphasis on re-allocation of resources towards the promotion of the economic growth which is essential to maintain living standards for a rapidly growing population. A Budget Rationalisation Programme aims to support the economic strategy by concentrating resources on fewer, priority activities instead of spreading funds too thinly to be effective. A telling symptom of Kenya's fiscal problems has been the failure of operating expenditures to keep pace with spending on wages and salaries (though real wage and salary levels have declined).

[3] More detail is given in Chapter 3 (see especially Figure 3.1).

The economic climate has had direct implications for the role of external aid agencies. Their support has become increasingly important, and they have shown a willingness to underpin the Government's strategy for economic restructuring. There has been an increasing demand for aid to take the form of balance-of-payments support, and a relative shift away from project-oriented aid. At the same time, the Government has had to rely on aid to finance a larger proportion of its Development Budget.

One concern of the Budget Rationalisation Programme has been to ensure that aid-financed expenditures are brought within the national framework of planning and priority setting. The stipulation that aid funds should be directed only towards programmes that are included in the GOK annual and forward budgets is now more strictly applied, as is the requirement that such aid should be recorded in the Government accounts.^[4]

These changes in the economic situation and the framework for aid have meant:

- (a) Many of Government's rural developmental services are functioning at low levels of effectiveness on account of the scarcity of GOK funds for operational costs. It makes little sense for aid agencies to finance separate programmes when comparatively modest incremental resources can make the existing services (such as agricultural extension) much more effective.
- (b) There is an acute perception of the "recurrent costs" problem and of the need to concentrate capital expenditures on a manageable number of priority projects that can be completed and sustained in operation.
- (c) Aid-funded programmes have to be integrated with the GOK planning and budgeting process, and to comply with Treasury regulations on the disbursement of funds.

These considerations are all reflected in the design of KIDP.

ASAL Development Policies

Although ASAL areas account for more than 80% of Kenya's land area, they hold only 25% of the population. These areas tended to be neglected in development strategy until, in the mid-1970s, it was recognised that they merited special attention since (a) their inhabitants were often amongst Kenya's poorest, (b) they needed to support and feed a growing population if they were not to become an increasing burden on the rest of the economy, and (c) intensified pressure on the arid and semi-arid lands carried ecological dangers that needed to be anticipated.

[4] Aid-financed expenditures are recorded as Appropriations-in-Aid (A-in-A) when the funds involved do not pass directly through the Treasury.

Experience has been gained through a number of ASAL development projects. The EEC-funded Machakos Integrated Development Programme was one of the earliest; other aid agencies have supported programmes in Turkana, Baringo, Kwale, Kilifi, Elgayo-Marakwet, and Taita-Taveta. These were coordinated by the Rural Planning Division of the Ministry of Planning and National Development, which had a section devoted to ASAL programmes, and are now under the Ministry of Reclamation and Development of Arid and Semi-Arid and Wastelands.

Some significant shifts have taken place in Government's ASAL strategy, reflecting both the changed economic climate and direct experience with ASAL projects so far. It is recognised that ASAL areas are unlikely to attract massive capital investment, even if such investment promised high returns (which generally it does not). There is now a more explicit emphasis, strongly reflected in the 1989-1993 National Development Plan, on support to existing production systems. There is concern to employ the District Focus approach in the planning and implementation of ASAL projects. Increasingly too there is concern to standardise the institutional approach of the ASAL programmes, and there are likely to be further steps in this direction: a Special Fund for ASAL Development is proposed, and Government hopes to standardise programming and disbursement procedures among the different aid agencies involved.

Annex L

Programme Costs

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TABLE 1.1: PROGRAMME MANAGEMENT UNIT OVERHEADS*

	Unit	'000Ksh Unit cost	No. of Units	1989/90	PY1 1990/91	PY2 1991/92	PY3 1992/93	PY4 1993/94	PY5 1994/95	TOTAL
CAPITAL										
Buildings:										
Kitui offices (4)	m ²	3.7	106	392.20						392.20
houses (3)	m ²	6.3	300	1890.00						1890.00
fencing	sum			100.00						100.00
Kyuso offices (2)	m ²	3.95	62	244.90						244.90
guest houses (6)	m ²	4.3	120	515.00						515.00
fencing	sum			100.00						100.00
Mwingi offices (2)	m ²	3.8	62	235.60						235.60
fencing	sum			100.00						100.00
Mutito offices (2)	m ²	3.8	62	235.60						235.60
guest houses (6)	m ²	4.2	120	504.00						504.00
fencing	sum			100.00						100.00
subtotal				4417.30						4417.30
Furniture @ 10%	sum			441.00						441.00
Vehicles:										
4WD LWB	item	700.0	6	2100.00				2100.00		4200.00
4WD SWB	item	500.0	2	500.00				500.00		1000.00
Saloon	item	350.0	2	350.00				350.00		700.00
Motorcycles	item	40.0	8	160.00				160.00		320.00
Equipment:										
PCs & printers	item	80.0	2	160.00				160.00		320.00
Photocopier	item	30.0	1	30.00				30.00		60.00
Software	sum			25.00				25.00		50.00
Typewriter	sum			25.00				25.00		50.00
subtotal				3791.00	0.00	0.00	0.00	0.00	3350.00	7141.00
Total Capital Costs				8208.30	0.00	0.00	0.00	0.00	3350.00	11558.30

(cont...)

* includes buildings for SMS

TABLE 1.1: PROGRAMME MANAGEMENT UNIT OVERHEADS (cont.)

	Unit	'000Ksh Unit cost	No. of Units	1989/90	PY1 1990/91	PY2 1991/92	PY3 1992/93	PY4 1993/94	PY5 1994/95	TOTAL
OPERATING										
Building Maintenance @ 2.5%	sum		5		110.00	110.00	110.00	110.00	110.00	550.00
Equipment @ 10%	sum		5		24.00	24.00	24.00	24.00		96.00
Transport:										
4WD LWB (3)	1000km	6.0	495	270.00	540.00	540.00	540.00	540.00	540.00	2970.00
4WD SWB (1)	1000km	6.0	165	90.00	180.00	180.00	180.00	180.00	180.00	990.00
Saloon (1)	1000km	3.0	165	45.00	90.00	90.00	90.00	90.00	90.00	495.00
Motorcycles (4)	1000km	1.5	220	30.00	60.00	60.00	60.00	60.00	60.00	330.00
Office operating:										
Phone, post, stationery	sum			300.00	600.00	600.00	600.00	600.00	600.00	3300.00
Per diems:										
Programme Officer	item	0.3	330	9.00	18.00	18.00	18.00	18.00	18.00	99.00
Programme Accountant	item	0.3	330	9.00	18.00	18.00	18.00	18.00	18.00	99.00
Senior Admin. Officer	item	0.3	330	9.00	18.00	18.00	18.00	18.00	18.00	99.00
Drivers (9)	item	0.15	2970	40.50	81.00	81.00	81.00	81.00	81.00	445.50
Staff salaries - Danida:										
Programme Coordinator	py	n.a.	5.5							
Staff salaries - Programme paid										
Senior Admin. Officer	py	150.0	5.5	75.00	150.00	150.00	150.00	150.00	150.00	825.00
Admin. Officer	py	36.0	5.5	18.00	36.00	36.00	36.00	36.00	36.00	198.00
Admin. Assts (3)	py	20.0	16.5	30.00	60.00	60.00	60.00	60.00	60.00	330.00
Programme Accountant	py	150.0	5.5	75.00	150.00	150.00	150.00	150.00	150.00	825.00
Computer Officer	py	36.0	5.5	18.00	36.00	36.00	36.00	36.00	36.00	198.00
Drivers for TAs (6)	py	14.5	33	43.50	87.00	87.00	87.00	87.00	87.00	478.50
Typists (3)	py	14.5	16.5	21.75	43.50	43.50	43.50	43.50	43.50	239.25
Staff salaries - MRDASAW										
Programme Officer	py	n.a.	5.5							
Drivers (3)	py	n.a.	16.5							
Accounts clerk	py	n.a.	5.5							
Typist (2)	py	n.a.	11							
Telephone operator	py	n.a.	5.5							
Clerk	py	n.a.	5.5							
Messenger (3)	py	n.a.	16.5							
Storekeeper	py	n.a.	5.5							
Janitor	py	n.a.	5.5							
Computer operator	py	n.a.	5.5							
Total Operating Costs				1083.75	2301.50	2301.50	2301.50	2301.50	2277.50	12567.25
TOTAL PMU OVERHEAD COSTS				9292.05	2301.50	2301.50	2301.50	2301.50	5627.50	24125.55

TABLE 1.2: WATER PROGRAMME COORDINATION UNIT

	Unit	'000Ksh Unit cost	No. of Units	1989/90	PY1 1990/91	PY2 1991/92	PY3 1992/93	PY4 1993/94	PY5 1994/95	TOTAL
CAPITAL										
Buildings:										
Offices and store	m ²	3.7	60	222.00						222.00
Vehicles:										
Hardtop 4WD SWB	item	600.0	2	1200.00				1200.00		2400.00
4WD SWB	item	700.0	1	700.00				700.00		1400.00
Motorcycles	item	40.0	4	160.00				160.00		320.00
Equipment:										
PCs & printer	item	80.0	1	80.00				80.00		160.00
Photocopier	item	30.0	1	30.00				30.00		60.00
Software	sum			25.00				25.00		50.00
Typewriter	sum			25.00				25.00		50.00
Other technical equipment	sum			30.00				30.00		30.00
subtotal				2472.00	0.00	0.00	0.00	0.00	2220.00	4692.00
OPERATING										
Building Maintenance @ 2.5%	ann'l sum	6.0	5		6.00	6.00	6.00	6.00	6.00	30.00
Equipment @ 10%	ann'l sum	19.0	5		19.00	19.00	19.00	19.00	19.00	95.00
Transport:										
Hardtop 4WD SWB (2)	1000km	6.0	330	180.00	360.00	360.00	360.00	360.00	360.00	1980.00
4WD LWB (1)	1000km	6.0	165	90.00	180.00	180.00	180.00	180.00	180.00	990.00
Motorcycles (4)	1000km	1.5	220	30.00	60.00	60.00	60.00	60.00	60.00	330.00
Office operating:										
Phone, post, stationery	ann'l sum	24.0	5.5	12.00	24.00	24.00	24.00	24.00	24.00	132.00
Per diems:										
Div Asst Const Suprvisrs (4)	item	0.2	1320	24.00	48.00	48.00	48.00	48.00	48.00	264.00
Drivers (3)	item	0.15	990	13.50	27.00	27.00	27.00	27.00	27.00	148.50
Staff salaries - Danida:										
Senior Water Engineer	py	n.a.	5.5							
Staff salaries - Programme paid										
Divisional Asst. Const.										
Supervisors (4)	py	72.0	22	144.00	288.00	288.00	288.00	288.00	288.00	1584.00
Drivers (3)	py	14.5	16.5	21.75	43.50	43.50	43.50	43.50	43.50	239.25
Site Survey Consultant	sum		5.0	200.00	200.00	200.00	200.00	200.00	200.00	1000.00
Special Studies:										
Spring potential				200.00	300.00	500.00				1000.00
Groundwater potential				200.00	300.00	500.00				1000.00
Subsurface sand duns				200.00	500.00					700.00
subtotal				1115.25	2355.50	2255.50	1255.50	1255.50	1255.50	9492.75
TOTAL WATER PROGRAMME COORDINATION UNIT				3587.25	2355.50	2255.50	1255.50	1255.50	3475.50	14184.75

TABLE 1.3: SURVEY AND MONITORING SECTION

	Unit	'000Ksh Unit cost	No. of Units	1989/90	PY1 1990/91	PY2 1991/92	PY3 1992/93	PY4 1993/94	PY5 1994/95	TOTAL
CAPITAL										
Buildings: (See PMU)										
Vehicles:										
4WD LWB	item	700.0	1	700.00					700.00	1400.00
Motorcycles	item	40.0	4	160.00					160.00	320.00
Equipment:										
PC & printer	item	80.0	1	80.00					80.00	160.00
Photocopier	item	30.0	1	30.00					30.00	60.00
Software	sum			25.00					25.00	50.00
Typewriter	sum			25.00					25.00	50.00
subtotal				1020.00	0.00	0.00	0.00	0.00	1020.00	2040.00
OPERATING										
Equipment maintenance	sum		4		16.00	16.00	16.00	16.00		64.00
Transport:										
4WD LWB (1)	1000km	6.0	165	90.00	180.00	180.00	180.00	180.00	180.00	990.00
Motorcycles (4)	1000km	1.5	220	30.00	60.00	60.00	60.00	60.00	60.00	330.00
Office operating:										
Phone, post, stationery	ann'l sum	24.0	5.5	12.00	24.00	24.00	24.00	24.00	24.00	132.00
Per diems:										
S&M Officer	item	0.3	330	9.00	18.00	18.00	18.00	18.00	18.00	99.00
Div. S&M Officer (4)	item	0.15	1320	18.00	36.00	36.00	36.00	36.00	36.00	198.00
S&M Assts (5)	item	0.15	1650	22.50	45.00	45.00	45.00	45.00	45.00	247.50
Driver (1)	item	0.15	330	4.50	9.00	9.00	9.00	9.00	9.00	49.50
Staff salaries - Danida:										
S&M Adviser	py	n.a.	5.5							
Staff salaries - MRDASAW:										
S&M Officer	py	n.a.	5.5							
Staff salaries - Programme paid										
Divisional S&M Officers (4)	py	36.0	22	72.00	144.00	144.00	144.00	144.00	144.00	792.00
S&M Assts (5)	py	20.0	27.5	50.00	100.00	100.00	100.00	100.00	100.00	550.00
Driver (1)	py	14.5	5.5	7.25	14.50	14.50	14.50	14.50	14.50	79.75
subtotal				315.25	646.50	646.50	646.50	646.50	630.50	3531.75
TOTAL SURVEY AND MONITORING				1335.25	646.50	646.50	646.50	646.50	1650.50	5571.75

TABLE 1.4: COMMUNITY EDUCATION AND TRAINING BUDGET -
GRAND TOTAL

	1989/90	PY1 1990/91	PY2 1991/92	PY3 1992/93	PY4 1993/94	PY5 1994/95	TOTAL
KITUI HQ	1445.90	1598.90	935.90	935.90	1635.90	1635.90	8188.40
CENTRAL DIVISION	0.00	298.80	225.60	225.60	225.60	285.60	1261.20
KYUSO DIVISION	0.00	685.68	282.03	282.03	282.03	334.03	1865.80
MWINGI DIVISION	0.00	597.28	274.14	274.14	274.14	326.14	1745.84
MUTITO DIVISION	0.00	662.72	272.00	272.00	272.00	320.00	1798.72
MUTOMO DIVISION	1150.85	1121.85	314.88	314.88	314.88	330.88	3548.22
TOTAL	2596.75	4965.23	2304.55	2304.55	3004.55	3232.55	18408.18

TABLE 1.4.1 COMMUNITY EDUCATION AND TRAINING BUDGET -
KITUI DISTRICT HQ

	Unit	'000Ksh Unit cost	No.	1989/90	PY1 1990/91	PY2 1991/92	PY3 1992/93	PY4 1993/94	PY5 1994/95	TOTAL
CAPITAL										
Buildings:										
Offices	m ²	3.70	22	81.40						81.40
Training room	m ²	3.70	56	207.20						207.20
Furniture:										
Chairs for training	item	0.50	32	16.00						16.00
Pin board - wall	m ²	0.10	30	3.00						3.00
Blackboard - wall	m ²	0.30	16	4.80						4.80
Tables for training	item	1.50	18	27.00						27.00
Office furniture*	set	25.00	1	25.00						25.00
Equipment:										
Overhead projector	item	13.00	1	13.00						13.00
Video camera	item	30.00	1	30.00						30.00
Monitor and v.c.p	item	13.00	1	13.00						13.00
Photocopier	item	25.00	1	25.00						25.00
Transport:										
4WD Station Wagon LWB (STO & DSDO)	item	700.00	4	700.00	700.00			700.00	700.00	2800.00
subtotal				1145.40	700.00	0.00	0.00	700.00	700.00	3245.40
OPERATING										
Buildings maintenance:										
2.5% of capital cost p.a.	ann'l sum	7.22	5		7.22	7.22	7.22	7.22	7.22	36.10
Equipment maintenance:										
10% of capital cost p.a.	ann'l sum	15.68	5		15.68	15.68	15.68	15.68	15.68	78.40
Transport operation:										
4WD Station Wagon LWB	1000km	6.00	315	90.00	360.00	360.00	360.00	360.00	360.00	1890.00
Staff - salaries:										
Senior Training Officer**	person yr	150.00	5.5	75.00	150.00	150.00	150.00	150.00	150.00	825.00
Office Administrator	person yr	30.00	5.5	15.00	30.00	30.00	30.00	30.00	30.00	165.00
Driver	person yr	20.00	5.5	10.00	20.00	20.00	20.00	20.00	20.00	110.00
Staff - per diems:										
Senior Training Officer	item	0.20	330	6.00	12.00	12.00	12.00	12.00	12.00	66.00
Driver	item	0.15	330	4.50	9.00	9.00	9.00	9.00	9.00	49.50
Office operating:										
phone, post, stationery	sum			15.00	30.00	42.00	42.00	42.00	42.00	213.00
Training materials:***										
	sum			45.00	90.00	115.00	115.00	115.00	115.00	595.00
Adult Education:										
Scholarships	person yr	20.00	15		60.00	60.00	60.00	60.00	60.00	300.00
Stationery/training mat.	ann'l sum	50.00	5		50.00	50.00	50.00	50.00	50.00	250.00
MDCSS										
SDAs scholarships	person yr	20.00	15		60.00	60.00	60.00	60.00	60.00	300.00
Consultants										
Outside lecturers	pd	2.00	32.5	40.00	5.00	5.00	5.00	5.00	5.00	65.00
subtotal				300.50	898.90	935.90	935.90	935.90	935.90	4943.00
TOTAL				1445.90	1598.90	935.90	935.90	1635.90	1635.90	8188.40

* 1 desk, 1 typist's table, 2 chairs, bookcase, cupboard, filing cabinet, manual typewriter, telephone

** Danida contract

***Overhead transparencies, overhead marking pens, flipchart stands, flipchart paper, felt-tip pens, training videos, blank video film, flannel graphs.

TABLE 1.4.2: COMMUNITY EDUCATION AND TRAINING BUDGET -
CENTRAL DIVISION

	Unit	'000Ksh Unit cost	No.	1989/90	PY1 1990/91	PY2 1991/92	PY3 1992/93	PY4 1993/94	PY5 1994/95	TOTAL
CAPITAL										
Transport:										
Motorbikes (ATD)	itea	40.00	1		40.00				40.00	80.00
Bicycles (SDAs)	itea	4.00	5		20.00				20.00	40.00
subtotal				0.00	60.00	0.00	0.00	0.00	60.00	120.00
OPERATING										
Transport:										
Motorbike (ATD)	1000km	1.50	45		7.50	15.00	15.00	15.00	15.00	67.50
Bicycle allowances	bike year	0.72	22.5		1.80	3.60	3.60	3.60	3.60	16.20
Staff - salaries:										
Asst. Training Officer	person yr	50.00	4.5		25.00	50.00	50.00	50.00	50.00	225.00
Staff - per diems:										
Asst. Training Officer	itea	0.15	270		4.50	9.00	9.00	9.00	9.00	40.50
SDAs (5)	itea	0.15	1350		22.50	45.00	45.00	45.00	45.00	202.50
Courses: *										
TOT I	p/person	2.00	30		60.00					60.00
Development Cttee	p/person	0.40	200		80.00					80.00
TOT II (5 SDAs)	p/person	1.50	5		7.50					7.50
TOT III	p/person	1.00	30		30.00					30.00
Div. lev. officers	p/person	0.80	20			16.00	16.00	16.00	16.00	64.00
Group committees	p/person	0.30	200			60.00	60.00	60.00	60.00	240.00
Water Projects	p/person	0.45	60			27.00	27.00	27.00	27.00	108.00
subtotal				0.00	238.80	225.60	225.60	225.60	225.60	1141.20
TOTAL				0.00	298.80	225.60	225.60	225.60	285.60	1261.20

* Per diems, food, travel

TABLE 1.4.3: COMMUNITY EDUCATION AND TRAINING BUDGET -
KYUSO DIVISION

	Unit	'000Ksh Unit cost	No.	1989/90	PY1 1990/91	PY2 1991/92	PY3 1992/93	PY4 1993/94	PY5 1994/95	TOTAL
CAPITAL										
Buildings:										
Offices	m ²	3.95	28		110.60					110.60
Training room	m ²	3.95	56		221.20					221.20
Furniture:										
Chairs for training	item	0.50	32		16.00					16.00
Pin board - wall	m ²	0.10	30		3.00					3.00
Blackboard - wall	m ²	0.30	16		4.80					4.80
Tables for training	item	1.50	18		27.00					27.00
Office furniture *	set	25.00	1		25.00					25.00
Transport:										
Motorbikes (ATO)	item	40.00	2		40.00				40.00	80.00
Bicycles (SDAs)	item	4.00	6		12.00				12.00	24.00
subtotal				0.00	459.60	0.00	0.00	0.00	52.00	511.60
OPERATING										
Building maintenance:										
2.5% of capital costs p.a.	ann'l sum	8.29	4			8.29	8.29	8.29	8.29	33.16
Equipment maintenance:										
10% of capital cost p.a.	ann'l sum	7.58	4			7.58	7.58	7.58	7.58	30.32
Transport:										
Motorbike (ATO)	1000km	1.50	45		7.50	15.00	15.00	15.00	15.00	67.50
Bicycle allowances	bike year	0.72	13.5		1.08	2.16	2.16	2.16	2.16	9.72
Staff - salaries:										
Asst. Training Officer	person yr	50.00	4.5		25.00	50.00	50.00	50.00	50.00	225.00
Staff - per diems:										
Asst. Training Officer	item	0.15	270		4.50	9.00	9.00	9.00	9.00	40.50
SDAs (3)	item	0.15	810		13.50	27.00	27.00	27.00	27.00	121.50
Courses: **										
TOT I	p/person	2.00	30		60.00					60.00
Development Committee	p/person	0.40	200		80.00					80.00
TOT II (3 SDAs)	p/person	1.50	3		4.50					4.50
TOT III	p/person	1.00	30		30.00					30.00
TOT refresher	p/person	2.00	30			60.00	60.00	60.00	60.00	240.00
Div. level officers	p/person	0.80	20		16.00	16.00	16.00	16.00	16.00	64.00
Group committees	p/person	0.30	200		60.00	60.00	60.00	60.00	60.00	240.00
Water Projects	p/person	0.45	60		27.00	27.00	27.00	27.00	27.00	108.00
subtotal				0.00	226.08	282.03	282.03	282.03	282.03	1354.20
TOTAL				0.00	685.68	282.03	282.03	282.03	334.03	1865.80

* 1 desk, 1 typist's table, 2 chairs, bookcase, cupboard, filing cabinet, manual typewriter, telephone.
** per diems, food, travel

TABLE 1.4.4: COMMUNITY EDUCATION AND TRAINING BUDGET -
MWINGI DIVISION

	Unit	'000Ksh Unit cost	No.	1989/90	PY1 1990/91	PY2 1991/92	PY3 1992/93	PY4 1993/94	PY5 1994/95	TOTAL
CAPITAL										
Buildings:										
Offices	m ²	3.80	56		212.80					212.80
Training room	m ²	3.80	28		106.40					106.40
Transport:										
Motorbikes (ATD)	item	40.00	2		40.00				40.00	80.00
Bicycles (SDAs)	item	4.00	6		12.00				12.00	24.00
subtotal				0.00	371.20	0.00	0.00	0.00	52.00	423.20
OPERATING										
Buildings maintenance:										
2.5% of capital cost p.a.	1000km	7.98	4			7.98	7.98	7.98	7.98	31.92
Transport:										
Motorbike (ATD)	1000km	1.50	45		7.50	15.00	15.00	15.00	15.00	67.50
Bicycle allowances	bike year	0.72	13.5		1.08	2.16	2.16	2.16	2.16	9.72
Staff - salaries:										
Asst. Training Officer	person yr	50.00	4.5		25.00	50.00	50.00	50.00	50.00	225.00
Staff - per diems:										
Asst. Training Officer	item	0.15	270		4.50	9.00	9.00	9.00	9.00	40.50
SDAs (3)	item	0.15	810		13.50	27.00	27.00	27.00	27.00	121.50
Courses: *										
TOT I	p/person	2.00	30		60.00					60.00
Development Committee	p/person	0.40	200		80.00					80.00
TOT II (3 SDAs)	p/person	1.50	3		4.50					4.50
TOT III	p/person	1.00	30		30.00					30.00
TOT refresher	p/person	2.00	30			60.00	60.00	60.00	60.00	240.00
Div. level officers	p/person	0.80	20			16.00	16.00	16.00	16.00	64.00
Group committees	p/person	0.30	200			60.00	60.00	60.00	60.00	240.00
Water Projects	p/person	0.45	60			27.00	27.00	27.00	27.00	108.00
subtotal				0.00	226.08	274.14	274.14	274.14	274.14	1322.64
TOTAL				0.00	597.28	274.14	274.14	274.14	326.14	1745.84

* per diems, food, travel

TABLE 1.4.5: COMMUNITY EDUCATION AND TRAINING BUDGET -
MUTITO DIVISIO

	Unit	'000Ksh Unit cost	No.	1989/90	PY1 1990/91	PY2 1991/92	PY3 1992/93	PY4 1993/94	PY5 1994/95	TOTAL
CAPITAL										
Buildings:										
Offices	m ²	3.80	28		106.40					106.40
Training room	m ²	3.80	56		212.80					212.80
Furniture:										
Chairs for training	item	0.50	32		16.00					16.00
Pin board - wall	m ²	0.10	30		3.00					3.00
Blackboard - wall	m ²	0.30	16		4.80					4.80
Tables for training	item	1.50	18		27.00					27.00
Office furniture *	set	25.00	1		25.00					25.00
Transport:										
Motorbikes (ATD)	item	40.00	2		40.00				40.00	80.00
Bicycles (SDAs)	item	4.00	4		8.00				8.00	16.00
subtotal				0.00	443.00	0.00	0.00	0.00	48.00	491.00
OPERATING										
Building maintenance:										
2.5% of capital cost p.a.	ann'l sum	7.98	4			7.98	7.98	7.98	7.98	31.92
Equipment maintenance:										
10% of capital cost p.a.	ann'l sum	7.58	4			7.58	7.58	7.58	7.58	30.32
Transport:										
Motorbike (ATD)	1000km	1.50	45		7.50	15.00	15.00	15.00	15.00	67.50
Bicycle allowances	bike year	0.72	9		0.72	1.44	1.44	1.44	1.44	6.48
Staff - salaries:										
Asst. Training Officer	person yr	50.00	4.5		25.00	50.00	50.00	50.00	50.00	225.00
Staff - per diems:										
Asst. Training Officer	item	0.15	270		4.50	9.00	9.00	9.00	9.00	40.50
SDAs (2)	item	0.15	540		9.00	18.00	18.00	18.00	18.00	81.00
Courses: **										
TOT I	p/person	2.00	30		60.00					60.00
Development Committee	p/person	0.40	200		80.00					80.00
TOT II (2 SDAs)	p/person	1.50	2		3.00					3.00
TOT III	p/person	1.00	30		30.00					30.00
TOT refresher	p/person	2.00	30			60.00	60.00	60.00	60.00	240.00
Div. level officers	p/person	0.80	20			16.00	16.00	16.00	16.00	64.00
Group committees	p/person	0.30	200			60.00	60.00	60.00	60.00	240.00
Water Projects	p/person	0.45	60			27.00	27.00	27.00	27.00	108.00
subtotal				0.00	219.72	272.00	272.00	272.00	272.00	1307.72
TOTAL				0.00	662.72	272.00	272.00	272.00	320.00	1798.72

* 1 desk, 1 typist's table, 2 chairs, bookcase, cupboard, filing cabinet, manual typewriter, telephone
** Per diems, food, travel

TABLE 1.4.6: COMMUNITY EDUCATION AND TRAINING BUDGET -
MUTOMO DIVISION

	Unit	'000Ksh Unit cost	No.	1989/90	PY1 1990/91*	PY2 1991/92	PY3 1992/93	PY4 1993/94	PY5 1994/95	TOTAL
CAPITAL										
Equipment:										
Overhead projector	item	13.00	1	13.00						13.00
Transport:										
Bicycles (SDAs)	item	4.00	8	16.00					16.00	32.00
subtotal				29.00	0.00	0.00	0.00	0.00	16.00	45.00
OPERATING										
Building Maintenance:	ann'l sum	8.00	6	8.00	8.00	8.00	8.00	8.00	8.00	48.00
Equipment Maintenance:	ann'l sum	16.00	6	16.00	16.00	16.00	16.00	16.00	16.00	96.00
Transport:										
4WD Station Wagon LWB	1000km	6.00	60	180.00	180.00					360.00
Motorbikes (12)	1000km	1.50	240	180.00	180.00					360.00
Bicycle Allowances (16)	bike yr	0.72	32	11.52	11.52					23.04
Bicycle Allowances (4)	bike yr	0.72	24	2.88	2.88	2.88	2.88	2.88	2.88	17.28
Staff - salaries:										
Prog. Training Coordinator	person yr	112.00	2	112.00	112.00					224.00
Asst. Training Coordinator	person yr	50.00	2	50.00	50.00					100.00
Asst. Training Officer	person yr	50.00	4			50.00	50.00	50.00	50.00	200.00
Group Coordinators	person yr	15.00	32	240.00	240.00					480.00
Clerical Assistant	person yr	15.00	2	15.00	15.00					30.00
Office Administrator	person yr	30.00	4			30.00	30.00	30.00	30.00	120.00
Staff - per diems:										
Prog. Training Coordinator	item	0.20	180	18.00	18.00					36.00
Asst. Training Coordinator	item	0.15	180	13.50	13.50					27.00
Asst. Training Officer	item	0.15	240			9.00	9.00	9.00	9.00	36.00
Group Coordinators (16)	item	0.15	1920	144.00	144.00					288.00
SDAs (4)	item	0.15	1440	36.00	36.00	36.00	36.00	36.00	36.00	216.00
Office operating:										
Phone, post, stationery	ann'l sum	12.00	2	12.00	12.00	**				24.00
Training Materials:	ann'l sum	25.00	2	25.00	25.00					50.00
Courses:										
Group Training	sum	0.10	840	42.00	42.00					84.00
Community Leaders	sum	0.10	280	14.00	14.00					28.00
Schools Approach	sum	0.10	19	0.95	0.95					1.90
Resource Persons	sum	1.00	2	1.00	1.00					2.00
TOT refresher	p/person	2.00	30			60.00	60.00	60.00	60.00	240.00
Div. level officers	p/person	0.80	20			16.00	16.00	16.00	16.00	64.00
Group committees	p/person	0.30	200			60.00	60.00	60.00	60.00	240.00
Water projects	p/person	0.45	60			27.00	27.00	27.00	27.00	108.00
subtotal				1121.85	1121.85	314.88	314.88	314.88	314.88	3503.22
TOTAL				1150.85	1121.85	314.88	314.88	314.88	330.88	3548.22

* Disbursement in 1991/92 - 1994/95 to be determined following detailed evaluation of Mutomo Division CET Section in the start-up period

** Subsumed by District Office.

TABLE 2.1: SOIL & WATER CONSERVATION AND CROP DEVELOPMENT -
GRAND TOTAL BY COMPONENT

	1989/90	PY1 1990/91	PY2 1991/92	PY3 1992/93	PY4 1993/94	PY5 1994/95	TOTAL
SOIL CONSERVATION*	3021.90	8340.70	7079.56	6050.01	5908.16	8720.16	39120.51
CROP DEVELOPMENT	375.42	1436.34	752.25	837.25	712.25	1532.25	5645.76
WATER CONSERVATION	1750.00	9027.18	12285.09	9718.49	9166.02	14000.00	55946.78
TOTAL	5147.32	18804.22	20116.90	16605.75	15786.43	24252.41	100713.05

* Includes Mutomo Administration budget - see Table 2.6.6.

TABLE 2.2: SOIL & WATER CONSERVATION AND CROP DEVELOPMENT -
GRAND TOTAL BY DIVISION

	1989/90	PY1 1990/91	PY2 1991/92	PY3 1992/93	PY4 1993/94	PY5 1994/95	TOTAL
KITUI DISTRICT HQ	0.00	2526.50	753.00	753.00	753.00	2853.00	7638.50
CENTRAL DIVISION	0.00	1442.21	5679.18	4381.65	4485.62	4775.42	20764.10
KYUSO DIVISION	0.00	4486.20	3461.30	2823.58	2748.99	5690.99	19211.08
MWINGI DIVISION	0.00	1253.50	4688.57	4109.67	3670.32	3896.50	17618.56
MUTITO DIVISION	0.00	4596.28	3330.48	3001.53	3011.53	5919.53	19859.34
MUTOMO DIVISION	5147.32	4499.52	2204.37	1536.32	1116.97	1116.97	15621.47
TOTAL	5147.32	18804.22	20116.90	16605.75	15786.43	24252.41	100713.05

**TABLE 2.2.1: SOIL & WATER CONSERVATION & CROP DEVELOPMENT
BUDGET - KITUI DISTRICT HQ**

	Unit	'000Ksh Unit cost	No.	1989/90	PY1 1990/91	PY2 1991/92	PY3 1992/93	PY4 1993/94	PY5 1994/95	TOTAL
CAPITAL										
DISTRICT AGRICULTURAL OFFICER										
Transport:										
4WD Station Wagon LWB	item	700.00	2		700.00				700.00	1400.00
SOIL CONSERVATION OFFICER										
Equipment:										
Photocopier	item	25.00	1		25.00					25.00
Transport:										
4WD Station Wagon LWB	item	700.00	2		700.00				700.00	1400.00
subtotal				0.00	1425.00	0.00	0.00	0.00	1400.00	2825.00
OPERATING										
DISTRICT AGRICULTURAL OFFICER										
Transport:										
4WD Station Wagon LWB	1000km	6.00	135		90.00	180.00	180.00	180.00	180.00	810.00
SOIL CONSERVATION OFFICER										
Transport:										
4WD Station Wagon LWB	1000km	6.00	135		90.00	180.00	180.00	180.00	180.00	810.00
Office operating:										
Phone, post, stationery	ann'l sum	12.00	4.5		6.00	12.00	12.00	12.00	12.00	54.00
Training courses:										
BLI: TAs, 2 p.a.	personday	0.20	1350		30.00	60.00	60.00	60.00	60.00	270.00
MOA staff - per diems:										
DAO	item	0.30	270		9.00	18.00	18.00	18.00	18.00	81.00
District SCO	item	0.20	270		6.00	12.00	12.00	12.00	12.00	54.00
Driver (2)	item	0.15	540		9.00	18.00	18.00	18.00	18.00	81.00
MOA staff - salaries:										
DAO										
District SCO										
Clerical Officer (2)										
Driver (2)										
subtotal				0.00	240.00	480.00	480.00	480.00	480.00	2160.00
TOTAL SOIL CONSERVATION				0.00	1665.00	480.00	480.00	480.00	1880.00	4985.00
CROPS OFFICER										
CAPITAL										
Equipment:										
Photocopier	item	25.00	1		25.00					25.00
Transport:										
4WD Station Wagon LWB	item	700.00	2		700.00				700.00	1400.00
subtotal					725.00	0.00	0.00	0.00	700.00	1425.00
OPERATING										
Transport:										
4WD Station Wagon LWB	1000km	6.00	135		90.00	180.00	180.00	180.00	180.00	810.00
Office operating:										
Phone, post, stationery	ann'l sum	12.00	4.5		6.00	12.00	12.00	12.00	12.00	54.00
Training courses:										
BLI: TAs, 2 p.a.	personday	0.20	1350		30.00	60.00	60.00	60.00	60.00	270.00
MOA staff - per diems:										
Crops Officer	item	0.20	270		6.00	12.00	12.00	12.00	12.00	54.00
Driver	item	0.15	270		4.50	9.00	9.00	9.00	9.00	40.50
MOA staff - salaries:										
Crops Officer										
Clerical Officer (2)										
Driver (1)										
subtotal				0.00	136.50	273.00	273.00	273.00	273.00	1228.50
TOTAL CROPS OFFICER				0.00	861.50	273.00	273.00	273.00	973.00	2653.50
TOTAL SOIL & WATER CONSERVATION & CROP DEVELOPMENT				0.00	2526.50	753.00	753.00	753.00	2853.00	7638.50

TABLE 2.2.2: SOIL & WATER CONSERVATION & CROP DEVELOPMENT BUDGET - CENTRAL DIVISION

	Unit	'000Ksh Unit cost	No.	1989/90	PY1 1990/91	PY2 1991/92	PY3 1992/93	PY4 1993/94	PY5 1994/95	TOTAL
SOIL CONSERVATION										
CAPITAL										
Transport:										
Motorbikes TS 125 FF (SCO and TAs (SC))	item	40.00	3		120.00				120.00	240.00
Motorbikes LEDs (8)	item	40.00	8		160.00	160.00			160.00	480.00
Bicycles TAs & JTAs (46)	item	4.00	46		184.00				184.00	368.00
subtotal				0.00	464.00	160.00	0.00	0.00	464.00	1088.00
OPERATING										
Transport:										
Motorbikes	1000km	1.50	275		7.50	45.00	90.00	120.00	150.00	412.50
Bicycle allowances	bike yr	0.72	207		16.56	33.12	33.12	33.12	33.12	149.04
Materials:										
Tools for groups - Jembes	item	0.04	13500		60.00	120.00	120.00	120.00	120.00	540.00
- Shovels	item	0.05	10125		56.25	112.50	112.50	112.50	112.50	506.25
- Barrows	item	0.70	2700		210.00	420.00	420.00	420.00	420.00	1890.00
- Ploughs & harnesses	item	2.10	1350		315.00	630.00	630.00	630.00	630.00	2835.00
Nurseries (2)	ann'l sum	50.00	9		50.00	100.00	100.00	100.00	100.00	450.00
Training:										
SC divisional courses (chiefs, groups etc.)	personday	0.15	540		9.00	18.00	18.00	18.00	18.00	81.00
MOA staff - per diems:										
DAEO	item	0.20	270		6.00	12.00	12.00	12.00	12.00	54.00
SCO	item	0.15	270		4.50	9.00	9.00	9.00	9.00	40.50
TA (SC) (2)	item	0.15	810		13.50	27.00	27.00	27.00	27.00	121.50
TO, TA, JTA (54)	item	0.15	7290		121.50	243.00	243.00	243.00	243.00	1093.50
MOA staff - salaries:										
DAEO	person/yr									
SCO	person/yr									
TA (SC) (2)	person/yr									
TO, TA, JTA (54)	person/yr									
subtotal				0.00	869.81	1769.62	1814.62	1844.62	1874.62	8173.29
TOTAL SOIL CONSERVATION				0.00	1333.81	1929.62	1814.62	1844.62	2338.62	9261.29
CROP DEVELOPMENT										
CAPITAL										
Transport:										
Motorbike TS 125 FF (Crops Officer)	item	40.00	1		40.00				40.00	80.00
subtotal				0.00	40.00	0.00	0.00	0.00	40.00	80.00
OPERATING										
Transport:										
Motorbikes	1000km	1.50	45		7.50	15.00	15.00	15.00	15.00	67.50
Materials for Demonstrations:										
Seed-grain	10kg	0.08	1242		11.04	22.08	22.08	22.08	22.08	99.36
Seed-legumes	2kg	0.03	3726		13.66	27.32	27.32	27.32	27.32	122.96
Insecticide (- 1.7 kg dipterex - 0.5 ltr pyrethrin)	perseason	0.20	414		9.20	18.40	18.40	18.40	18.40	82.80
Trials at BLI:										
Casual labour	personday	0.03	6750		22.50	45.00	45.00	45.00	45.00	202.50
MOA staff - per diems:										
Crops Officer	item	0.15	270		4.50	9.00	9.00	9.00	9.00	40.50
MOA staff - salaries:										
Crops Officer	person yr									
subtotal				0.00	68.40	136.80	136.80	136.80	136.80	615.62
TOTAL CROP DEVELOPMENT				0.00	108.40	136.80	136.80	136.80	176.80	695.62

(cont...)

TABLE 2.2.2: SOIL & WATER CONSERVATION & CROP DEVELOPMENT BUDGET - CENTRAL DIVISION (cont.)

	Unit	'000 KSh Unit Cost	No.	1989/90	PY1 1990/91	PY2 1991/92	PY3 1992/93	PY4 1993/94	PY5 1994/95	TOTAL
WATER CONSERVATION										
CAPITAL										
Transport:										
Pickup 4WD	item	500.00	1			500.00				500.00
Lorries (3.5T)	item	600.00	1			600.00				600.00
Motorbikes (3)	item	40.00	3			80.00	40.00			120.00
Equipment:										
Concrete mixer	item	50.00	1			50.00				50.00
Tractor + trailer (2)	item	700.00	2			1400.00				1400.00
Water bowser	item	50.00	1			50.00				50.00
Water pump	item	20.00	1			20.00				20.00
Hand pumps	item	12.00	30			0.00	120.00	120.00	120.00	360.00
Uni-ports	item	15.00	6			90.00				90.00
Hand drilling rig	item	50.00	1			50.00				50.00
subtotal				0.00	0.00	2840.00	160.00	120.00	120.00	3240.00
OPERATING										
Transport:										
Pick-up 4WD (1)	1000km	6.00	105			90.00	180.00	180.00	180.00	630.00
Lorry 3.5T (1)	1000km	8.00	105			120.00	240.00	240.00	240.00	840.00
Tractors (2)	500hrs	50.00	7			50.00	100.00	100.00	100.00	350.00
Motorbikes (3)	1000km	1.50	110			30.00	45.00	45.00	45.00	165.00
Running cost constr.eq.						9.00	15.00	15.00	15.00	54.00
Materials and tools	sum					300.00	600.00	600.00	600.00	2100.00
Subcontracts:										
Rehabilitation	item					143.76	260.23	204.20	0.00	608.19
Skilled Labour (EG/T & S/W)						0.00	600.00	600.00	600.00	1800.00
Transport (oxcart)	item	10.00	75			0.00	150.00	300.00	300.00	750.00
(hand cart)	item	4.00	25			0.00	20.00	40.00	40.00	100.00
MOA Staff - per diems: Drivers (4)	item	0.15	1400			30.00	60.00	60.00	60.00	210.00
MOA Staff - salaries: Drivers (4)	person/yr									
subtotal				0.00	0.00	772.76	2270.23	2384.20	2180.00	7607.19
TOTAL WATER CONSERVATION				0.00	0.00	3612.76	2430.23	2504.20	2300.00	10847.19
TOTAL SOIL & WATER CONSERVATION & CROP DEVELOPMENT				0.00	1442.21	5679.18	4381.65	4485.62	4775.42	20764.10

TABLE 2.2.3: SOIL & WATER CONSERVATION & CROP DEVELOPMENT BUDGET - KYUSO DIVISION

	Unit	'000Ksh Unit cost	No.	1989/90	PY1 1990/91	PY2 1991/92	PY3 1992/93	PY4 1993/94	PY5 1994/95	TOTAL
SOIL CONSERVATION										
CAPITAL										
Buildings:										
Offices	m ²	3.90	22		86.9					86.90
Store	m ²	3.90	12		47.4					47.40
Transport:										
Motorbikes TS 125 FF (SCD and TAs (SC))	item	40.00	6		120.00				120.00	240.00
Motorbikes LEDs (7)	item	40.00	11		160.00	120.00			160.00	440.00
Bicycles TAs & JTAs (3)	item	4.00	3		12.00				12.00	24.00
subtotal				0.00	426.30	120.00	0.00	0.00	292.00	838.30
OPERATING										
Building maintenance:										
2.5% of capital costs p.a.	ann'l sum	3.35	4			3.35	3.35	3.35	3.35	13.40
Transport:										
Motorbikes (10)	1000km	1.50	295		15.00	60.00	97.50	120.00	150.00	442.50
Bicycle allowances (3)	bike yr	0.72	13.5		1.08	2.16	2.16	2.16	2.16	9.72
Materials:										
Tools for groups - Jeabes	item	0.04	2250		10.00	20.00	20.00	20.00	20.00	90.00
- Shovels	item	0.05	1687		9.37	18.74	18.74	18.74	18.74	84.35
- Barrows	item	0.70	450		35.00	70.00	70.00	70.00	70.00	315.00
- Ploughs & harnesses	item	2.10	225		52.50	105.00	105.00	105.00	105.00	472.50
Nurseries (2)	ann'l sum	50.00	9		50.00	100.00	100.00	100.00	100.00	450.00
Training:										
SC divisional courses (chiefs, groups etc.)	personday	0.15	540		9.00	18.00	18.00	18.00	18.00	81.00
MDA staff - per diems:										
DAEO	item	0.20	270		6.00	12.00	12.00	12.00	12.00	54.00
SCD	item	0.15	270		4.50	9.00	9.00	9.00	9.00	40.50
TA (SC) (2)	item	0.15	810		13.50	27.00	27.00	27.00	27.00	121.50
TO, TA, JTA (10)	item	0.15	1350		22.50	45.00	45.00	45.00	45.00	202.50
MDA staff - salaries:										
DAEO	person/yr									
SCD	person/yr									
TA (SC) (2)	person/yr									
TO, TA, JTA (10)	person/yr									
subtotal				0.00	228.45	490.25	527.75	550.25	580.25	2376.97
TOTAL SOIL CONSERVATION				0.00	654.75	610.25	527.75	550.25	872.25	3215.27
CROP DEVELOPMENT										
CAPITAL										
Transport:										
Motorbike TS 125 FF (Crops Officer)	item	40.00	2		40.00				40.00	80.00
subtotal					40.00	0.00	0.00	0.00	40.00	80.00
OPERATING										
Transport:										
Motorbike	1000km	1.50	45		7.50	15.00	15.00	15.00	15.00	67.50
Materials for Demonstrations:										
Seed-grain	10kg	0.08	270		2.40	4.80	4.80	4.80	4.80	21.60
Seed-legumes	2kg	0.03	810		2.97	5.94	5.94	5.94	5.94	26.73
Insecticide (- 1.7 kg dipterex - 0.5 ltr pyrethrin)	perseason	0.20	90		2.00	4.00	4.00	4.00	4.00	18.00
MDA staff - per diems:										
Crops Officer	item	0.15	270		4.50	9.00	9.00	9.00	9.00	40.50
MDA staff - salaries:										
Crops Officer	person yr									
subtotal				0.00	19.37	38.74	38.74	38.74	38.74	174.33
TOTAL CROP DEVELOPMENT				0.00	59.37	38.74	38.74	38.74	78.74	254.33

(cont...)

TABLE 2.2.3: SOIL & WATER CONSERVATION & CROP DEVELOPMENT BUDGET - KYUSO DIVISION (cont.)

	Unit	'000 KSh Unit Cost	No.	1989/90	PY1 1990/91	PY2 1991/92	PY3 1992/93	PY4 1993/94	PY5 1994/95	TOTAL
WATER CONSERVATION										
CAPITAL										
Buildings:										
Workshop/store	m ²	3.90	48		185.30					185.30
Transport:										
Pickup 4WD	item	500.00	2		500.00				500.00	1000.00
Lorries (3.5T)	item	600.00	2		600.00				600.00	1200.00
Motorbikes	item	45.00	5		80.00	40.00			80.00	200.00
Equipment:										
Concrete mixer	item	50.00	1		50.00					50.00
Tractor + trailer	item	700.00	4		1400.00				1400.00	2800.00
Water bowser	item	50.00	1		50.00					50.00
Water pump	item	20.00	1		20.00					20.00
Hand pumps	item	12.00	40			120.00	120.00	120.00	120.00	480.00
Hand drilling rig	item	50.00	1			50.00				50.00
Uni-ports	item	15.00	6			90.00				90.00
subtotal				0.00	2885.30	300.00	120.00	120.00	2700.00	6125.30
OPERATING										
Transport:										
Pick-up 4WD (1)	1000km	6.00	135		90.00	180.00	180.00	180.00	180.00	810.00
Lorry 3.5T (1)	1000km	8.00	135		120.00	240.00	240.00	240.00	240.00	1080.00
Tractors (2)	500hrs	50.00	9		50.00	100.00	100.00	100.00	100.00	450.00
Motorbikes (3)	1000km	1.50	140		30.00	45.00	45.00	45.00	45.00	210.00
Running cost constr.eq.					9.00	15.00	15.00	15.00	15.00	69.00
Materials and tools	sum				300.00	600.00	600.00	600.00	600.00	2700.00
Subcontracts:										
Rehabilitation	item				257.78	582.31	97.09	0.00	0.00	937.18
Skilled labour (EG/T & S/W)					0.00	600.00	600.00	600.00	600.00	2400.00
Transport (oxcart)	item	10.00	55		0.00	70.00	160.00	160.00	160.00	550.00
(hand cart)	item	4.00	35			20.00	40.00	40.00	40.00	140.00
MOA staff - per diems:										
Drivers (4)	item	0.15	1800		30.00	60.00	60.00	60.00	60.00	270.00
MOA staff - salaries:										
Drivers (4)	person/yr									
subtotal				0.00	886.78	2512.31	2137.09	2040.00	2040.00	9616.18
TOTAL WATER CONSERVATION				0.00	3772.08	2812.31	2257.09	2160.00	4740.00	15741.48
TOTAL SOIL & WATER CONSERVATION & CROP DEVELOPMENT				0.00	4486.20	3461.30	2823.58	2748.99	5690.99	19211.08

TABLE 2.2.4: SOIL & WATER CONSERVATION AND CROP DEVELOPMENT BUDGET - MWINGI DIVISION

	Unit	'000Ksh Unit cost	No.	1989/90	PY1 1990/91	PY2 1991/92	PY3 1992/93	PY4 1993/94	PY5 1994/95	TOTAL
SOIL CONSERVATION										
CAPITAL										
Buildings:										
Offices	m ²	3.80	22		83.60					83.60
Store	m ²	3.80	12		45.60					45.60
Transport:										
Motorbikes TS 125 FF (SCO and TAs (SC))	item	40.00	6		120.00				120.00	240.00
Motorbikes LEDs (4)	item	40.00	6		80.00	80.00			80.00	240.00
Bicycles TAs & JTAs (22)	item	4.00	22		88.00				88.00	176.00
subtotal				0.00	417.20	80.00	0.00	0.00	288.00	785.20
OPERATING										
Building maintenance:										
2.5% of capital costs p.a.	ann'l sum	3.23	4			3.23	3.23	3.23	3.23	12.92
Transport:										
Motorbikes	1000km	1.50	305		37.50	105.00	105.00	105.00	105.00	457.50
Bicycle allowances	bike yr	0.72	99		7.92	15.84	15.84	15.84	15.84	71.28
Materials:										
Tools for groups - Jembes	item	0.04	9000		40.00	80.00	80.00	80.00	80.00	360.00
- Shovels	item	0.05	6750		37.50	75.00	75.00	75.00	75.00	337.50
- Barrows	item	0.70	1800		140.00	280.00	280.00	280.00	280.00	1260.00
- Ploughs & harnesses	item	2.10	900		210.00	420.00	420.00	420.00	420.00	1890.00
Nurseries (1)	ann'l sum	50.00	4.5		25.00	50.00	50.00	50.00	50.00	225.00
Training:										
SC divisional courses (chiefs, groups etc.)	personday	0.15	540		9.00	18.00	18.00	18.00	18.00	81.00
MDA staff - per diems:										
DAEO	item	0.20	270		6.00	12.00	12.00	12.00	12.00	54.00
SCO	item	0.15	270		4.50	9.00	9.00	9.00	9.00	40.50
TA (SC) (2)	item	0.15	810		13.50	27.00	27.00	27.00	27.00	121.50
TD, TA, JTA (26)	item	0.15	3510		58.50	117.00	117.00	117.00	117.00	526.50
MDA staff - salaries:										
DAEO	person/yr									
SCO	person/yr									
TA (SC) (2)	person/yr									
TD, TA, JTA (26)	person/yr									
subtotal				0.00	589.42	1212.07	1212.07	1212.07	1212.07	5437.70
TOTAL SOIL CONSERVATION				0.00	1006.62	1292.07	1212.07	1212.07	1500.07	6222.90
CROP DEVELOPMENT										
CAPITAL										
Transport:										
Motorbike TS 125 FF (Crops Officer)	item	40.00	2		40.00				40.00	80.00
subtotal				0.00	40.00	0.00	0.00	0.00	40.00	80.00
OPERATING										
Transport:										
Motorbike	1000km	1.50	45		7.50	15.00	15.00	15.00	15.00	67.50
Materials for Demonstrations:										
Seed-grain	10kg	0.08	594		5.28	10.56	10.56	10.56	10.56	47.52
Seed-legumes	2kg	0.03	1782		6.53	13.07	13.07	13.07	13.07	58.81
Insecticide	perseason	0.20	198		4.40	8.80	8.80	8.80	8.80	39.60
(- 1.7 kg dipterex - 0.5 ltr pyrethrin)										
MDA staff - per diems:										
Crops Officer	item	0.15	270		4.50	9.00	9.00	9.00	9.00	40.50
MDA staff - salaries:										
Crops Officer	person yr									
subtotal				0.00	28.21	56.43	56.43	56.43	56.43	253.93
TOTAL CROP DEVELOPMENT				0.00	68.21	56.43	56.43	56.43	96.43	333.93

(cont...)

TABLE 2.2.4: SOIL & WATER CONSERVATION AND CROP DEVELOPMENT
BUDGET - MWINGI DIVISION (cont.)

	Unit	'000 KSh Unit Cost	No.	1989/90	PY1 1990/91	PY2 1991/92	PY3 1992/93	PY4 1993/94	PY5 1994/95	TOTAL
WATER CONSERVATION										
CAPITAL										
Buildings:										
Workshop/store	m ²	3.70	48		178.67					178.67
Transport:										
Pickup 4WD (1)	item	500.00	1			500.00				500.00
Lorries (3.5T)	item	600.00	(1)			0.00				0.00
Motorbikes (3)	item	40.00	3			80.00	40.00			120.00
Equipment:										
Concrete mixer	item	50.00	1			50.00				50.00
Tractor + trailer (2)	item	700.00	2			1400.00				1400.00
Water bowser	item	50.00	1			50.00				50.00
Water pump	item	20.00	1			20.00				20.00
Hand pumps	item	12.00	30				120.00	120.00	120.00	360.00
Uni-ports	item	15.00	6			90.00				90.00
Hand drilling rig	item	50.00	(1)			0.00				0.00
subtotal				0.00	178.67	2190.00	160.00	120.00	120.00	2768.67
OPERATING										
Transport:										
Pick-up 4WD (1)	1000km	6.00	105			90.00	180.00	180.00	180.00	630.00
Lorry 3.5T (1)	1000km	8.00	105			120.00	240.00	240.00	240.00	840.00
Tractors (2)	500hrs	50.00	7			50.00	100.00	100.00	100.00	350.00
Motorbikes (3)	1000km	1.50	110			30.00	45.00	45.00	45.00	165.00
Running cost constr.eq.						9.00	15.00	15.00	15.00	54.00
Materials and tools	sum					300.00	600.00	600.00	600.00	2100.00
Subcontracts:										
Rehabilitation	item					521.07	671.17	101.82		1294.06
Skilled labour (EG/T & S/W)							600.00	600.00	600.00	1800.00
Transport (oxcart)	item	10.00	75				150.00	300.00	300.00	750.00
(hand cart)	item	4.00	25				20.00	40.00	40.00	100.00
MOA staff - per diems:										
Drivers (4)	item	0.15	1400			30.00	60.00	60.00	60.00	210.00
MOA staff - salaries:										
Drivers (4)	person/yr									
subtotal				0.00	0.00	1150.07	2681.17	2281.82	2180.00	8293.06
TOTAL WATER CONSERVATION				0.00	178.67	3340.07	2841.17	2401.82	2300.00	11061.73
TOTAL SOIL & WATER CONSERVATION & CROP DEVELOPMENT				0.00	1253.50	4688.57	4109.67	3670.32	3896.50	17618.56

(1): transferred from Mutomo

TABLE 2.2.5: SOIL & WATER CONSERVATION AND CROP DEVELOPMENT BUDGET - MUTITO DIVISION

	Unit	'000Ksh Unit cost	No.	1989/90	PY1 1990/91	PY2 1991/92	PY3 1992/93	PY4 1993/94	PY5 1994/95	TOTAL
SOIL CONSERVATION										
CAPITAL										
Buildings:										
Offices	m ²	3.80	22		83.60					83.60
Store	m ²	3.80	12		45.60					45.60
Transport:										
Motorbikes TS 125 FF (SCO and TAs (SC))	item	40.00	6		120.00				120.00	240.00
Motorbikes LEOs (6)	item	40.00	9		120.00	120.00			120.00	360.00
Bicycles TAs & JTAs (17)	item	4.00	34		68.00				68.00	136.00
subtotal				0.00	437.20	120.00	0.00	0.00	308.00	865.20
OPERATING										
Building maintenance:										
2.5% of capital costs p.a.	ann'l sum	3.23	4			3.23	3.23	3.23	3.23	12.92
Transport:										
Motorbikes (9)	1000km	1.50	310		45.00	105.00	105.00	105.00	105.00	465.00
Bicycle allowances	bike yr	0.72	76.5		6.12	12.24	12.24	12.24	12.24	55.08
MOA staff - salaries:										
DAEO	person/yr									
SCO	person/yr									
TA (SC) (2)	person/yr									
TO, TA, JTA (23)	person/yr									
MOA staff - per diems:										
DAEO	item	0.20	270		6.00	12.00	12.00	12.00	12.00	54.00
SCO	item	0.15	270		4.50	9.00	9.00	9.00	9.00	40.50
TA (SC) (2)	item	0.15	810		13.50	27.00	27.00	27.00	27.00	121.50
TO, TA, JTA (23)	item	0.15	3105		51.75	103.50	103.50	103.50	103.50	465.75
Materials:										
Tools for groups - Jembes	item	0.04	4500		20.00	40.00	40.00	40.00	40.00	180.00
- Shovels	item	0.05	3375		18.75	37.50	37.50	37.50	37.50	168.75
- Barrows	item	0.70	900		70.00	140.00	140.00	140.00	140.00	630.00
- Ploughs & harnesses	item	2.10	450		105.00	210.00	210.00	210.00	210.00	945.00
Nurseries (2)	ann'l sum	50.00	9		50.00	100.00	100.00	100.00	100.00	450.00
Training:										
SC divisional courses (chiefs, groups etc.)	personday	0.15	540		9.00	18.00	18.00	18.00	18.00	81.00
subtotal				0.00	399.62	817.47	817.47	817.47	817.47	3669.50
TOTAL SOIL CONSERVATION				0.00	836.82	937.47	817.47	817.47	1125.47	4534.70
CROP DEVELOPMENT										
CAPITAL										
Transport:										
Motorbike TS 125 FF (Crops Officer)	item	40.00	1		40.00				40.00	80.00
subtotal				0.00	40.00	0.00	0.00	0.00	40.00	80.00
OPERATING										
Transport:										
Motorbike	1000km	1.50	45		7.50	15.00	15.00	15.00	15.00	67.50
Materials for Demonstrations:										
Seed grain	10kg	0.08	459		4.08	8.16	8.16	8.16	8.16	36.72
Seed legumes	2kg	0.03	1377		5.05	10.10	10.10	10.10	10.10	45.44
Insecticide	perseason	0.20	153		3.40	6.80	6.80	6.80	6.80	30.60
(- 1.7 kg dipterex - 0.5 ltr pyrethrin)										
Seed-bulking plot:										
Casual labour	personday	0.03	6750		22.50	45.00	45.00	45.00	45.00	202.50
MOA staff - per diems:										
Crops Officer	item	0.15	270		4.50	9.00	9.00	9.00	9.00	40.50
MOA staff - salaries:										
Crops Officer	person yr									
subtotal				0.00	47.03	94.06	94.06	94.06	94.06	423.26
TOTAL CROP DEVELOPMENT				0.00	87.03	94.06	94.06	94.06	134.06	503.26

(cont...)

TABLE 2.2.5: SOIL & WATER CONSERVATION AND CROP DEVELOPMENT BUDGET - MUTITO DIVISION (cont.)

Unit	'000 KSh Unit Cost	No.	1989/90	PY1 1990/91	PY2 1991/92	PY3 1992/93	PY4 1993/94	PY5 1994/95	TOTAL	
WATER CONSERVATION										
CAPITAL										
Buildings:										
Workshop/store	m ²	3.80	48	182.40					182.40	
Transport:										
Pickup 4WD	item	500.00	2	500.00				500.00	1000.00	
Lorries (3.5T)	item	600.00	2	600.00				600.00	1200.00	
Motorbikes	item	45.00	5	80.00	40.00			80.00	200.00	
Equipment:										
Concrete mixer	item	50.00	1	50.00					50.00	
Tractor + trailer	item	700.00	4	1400.00			1400.00		2800.00	
Water bowser	item	50.00	1	50.00					50.00	
Water pump	item	20.00	1	20.00					20.00	
Hand pumps	item	12.00	40		120.00	120.00	120.00	120.00	480.00	
Uni-ports	item	15.00	6		90.00				90.00	
Hand drilling rig	item	50.00	1		50.00				50.00	
subtotal				0.00	2882.40	300.00	120.00	120.00	2700.00	6122.40
OPERATING										
Transport:										
Pick-up 4WD (1)	1000km	6.00	135	90.00	180.00	180.00	180.00	180.00	810.00	
Lorry 3.5T (1)	1000km	8.00	135	120.00	240.00	240.00	240.00	240.00	1080.00	
Tractors (2)	500hrs	50.00	9	50.00	100.00	100.00	100.00	100.00	450.00	
Motorbikes (3)	1000km	1.50	140	30.00	45.00	45.00	45.00	45.00	210.00	
Running cost constr.eq.				9.00	15.00	15.00	15.00	15.00	69.00	
Materials and tools	sum			300.00	600.00	600.00	600.00	600.00	2700.00	
Subcontracts:										
Rehabilitation	sum			161.03	58.95	0.00	0.00	0.00	219.98	
Skilled labour (ES/T & S/W)				0.00	600.00	600.00	600.00	600.00	2400.00	
Transport (oxcart)	item	10.00	35	0.00	80.00	90.00	100.00	80.00	350.00	
(hand cart)	item	4.00	35		20.00	40.00	40.00	40.00	140.00	
MOA staff - per diems:										
Drivers (4)	item	0.15	1800	30.00	60.00	60.00	60.00	60.00	270.00	
MOA staff - salaries:										
Drivers (4)	person/yr									
subtotal				0.00	790.03	1998.95	1970.00	1980.00	1960.00	8698.98
TOTAL WATER CONSERVATION				0.00	3672.43	2298.95	2090.00	2100.00	4660.00	14821.38
TOTAL SOIL & WATER CONSERVATION & CROP DEVELOPMENT				0.00	4596.28	3330.48	3001.53	3011.53	5919.53	19859.34

TABLE 2.2.6: SOIL & WATER CONSERVATION, CROP DEVELOPMENT & ADMINISTRATION BUDGET - MUTOMO DIVISION

	Unit	'000Ksh Unit cost	No.	1989/90	PY1 1990/91	PY2 1991/92	PY3 1992/93	PY4 1993/94	PY5 1994/95	TOTAL
SOIL CONSERVATION										
CAPITAL										
Transport:										
Motorbikes TS 125 FF (SCD and TAs (SC))	item	40.00	3			120.00				120.00
Motorbikes LE0s (8)	item	40.00	8			320.00				320.00
Bicycles TAs & JTAs (46)	item	4.00	30			120.00				120.00
subtotal				0.00	0.00	560.00	0.00	0.00	0.00	560.00
OPERATING										
Transport (existing fleet):										
4WD Pick-up LWB	1000km	6.00	60	180.00	180.00					360.00
Station Wagon	1000km	6.00	60	180.00	180.00					360.00
Lorry 3.5 tonnes	1000km	8.00	60	240.00	240.00					480.00
Motorbikes (20)	1000km	1.50	400	300.00	300.00					600.00
Bicycle allowances (30)	bike yr	0.72	60	21.60	21.60					43.20
Materials:										
Tools for groups - Jembes	item	0.04	10500	80.00	80.00	70.00	70.00	60.00	60.00	420.00
- Shovels	item	0.05	7875	75.00	75.00	65.65	65.60	56.25	56.25	393.75
- Barrows	item	0.70	1800	280.00	280.00	210.00	210.00	140.00	140.00	1260.00
- Pl & harness	item	2.10	900	420.00	420.00	315.00	315.00	210.00	210.00	1890.00
Divisional nurseries (3)	ann'l sum	50.00	12			150.00	150.00	150.00	150.00	600.00
School nurseries										
- Watering cans	item	0.06	900	9.00	9.00	9.00	9.00	9.00	9.00	54.00
- Poly bags	ann'l sum	75.00	6	75.00	75.00	75.00	75.00	75.00	75.00	450.00
- Tools	ann'l sum	25.00	6	25.00	25.00	25.00	25.00	25.00	25.00	150.00
- Seeds	ann'l sum	10.00	6	10.00	10.00	10.00	10.00	10.00	10.00	60.00
Training:										
SC divisional courses (chiefs, groups etc.)	person/day	0.15	480			18.00	18.00	18.00	18.00	72.00
Danida staff - salaries:										
JTAs (15 - 0)	person/yr	14.40	30	216.00	144.00	72.00				432.00
Drivers (3 - 0)	person/yr	15.60	6	46.80	46.80					93.60
Storekeeper (1 - 0)	person/yr	12.60	1	12.60						12.60
Animal Tract'n Trnrs (2 - 0)	person/yr	12.60	4	25.20	25.20					50.40
Nursery foremen	person/yr	18.00	6	54.00	54.00					108.00
Nursery attendants (12 - 0)	person/yr	12.60	18	151.20	75.60					226.80
Danida staff - per diems:										
JTAs (15 - 0)	item	0.15	900	67.50	45.00	22.50				135.00
Drivers (3)	item	0.15	360	27.00	27.00					54.00
MOA staff - per diems:										
DAEO	item	0.20	360	12.00	12.00	12.00	12.00	12.00	12.00	72.00
SCO	item	0.15	360	9.00	9.00	9.00	9.00	9.00	9.00	54.00
TA (SC) (2)	item	0.15	1080	27.00	27.00	27.00	27.00	27.00	27.00	162.00
TD, TA, JTA (30 - 45)	item	0.15	7200	135.00	157.50	180.00	202.50	202.50	202.50	1080.00
MOA staff - salaries:										
DAEO	person/yr									
SCO	person/yr									
TA (SC) (2)	person/yr									
TD, TA, JTA (30 - 45)	person/yr									
subtotal				2678.90	2518.70	1270.15	1198.10	1003.75	1003.75	9673.35
TOTAL SOIL CONSERVATION				2678.90	2518.70	1830.15	1198.10	1003.75	1003.75	10233.35

(cont...)

TABLE 2.2.6: SOIL & WATER CONSERVATION, CROP DEVELOPMENT & ADMINISTRATION BUDGET - MUTOMO DIVISION (cont.)

	Unit	'000Ksh Unit cost	No.	1989/90	PY1 1990/91	PY2 1991/92	PY3 1992/93	PY4 1993/94	PY5 1994/95	TOTAL
CROP DEVELOPMENT										
CAPITAL										
Transport:										
Motorbike TS 125 FF (Crops Officer)	item	40.00	1			40.00				40.00
	subtotal			0.00	0.00	40.00	0.00	0.00	0.00	40.00
OPERATING										
Transport:										
Motorbike	1000km	1.50	60	15.00	15.00	15.00	15.00	15.00	15.00	90.00
Materials for Demonstrations:										
Seed grain	10kg	0.08	1080	14.40	14.40	14.40	14.40	14.40	14.40	86.40
Seed legumes	2kg	0.03	3240	17.82	17.82	17.82	17.82	17.82	17.82	106.92
Insecticide (- 1.7 kg dipterex - 0.5 ltr pyrethrin)	perseason	0.20	360	12.00	12.00	12.00	12.00	12.00	12.00	72.00
Ituaba Farm:										
Field days - visitors' lunch	item	0.01	3000	15.00	15.00					30.00
Inputs - Seed dressing	ann'l sum	20.00	2	20.00	20.00					40.00
- Acaricide	ann'l sum	5.00	2	5.00	5.00					10.00
- Insecticide (field crops)	ann'l sum	10.00	2	10.00	10.00					20.00
- Boma manure	ann'l sum	3.00	2	3.00	3.00					6.00
- Misc. materials	ann'l sum	10.00	2	10.00	10.00					20.00
Seed bulking: seed contracts							125.00			125.00
Casual labour for trials	personday	0.03	6000			45.00	45.00	45.00	45.00	180.00
Danida staff - salaries:										
Project Technical Officer	person yr	30.00	1	30.00						30.00
Farm labourers (12 - 0)	person yr	12.60	18	151.20	75.60					226.80
Farm Foremen (2 - 0)	person yr	18.00	3	36.00	18.00					54.00
MOA staff - per diems:										
Crops Officer	item	0.15	360	9.00	9.00	9.00	9.00	9.00	9.00	54.00
Extension Coordinator	item	0.15	120	9.00	9.00					18.00
Rural Technology Dev Officer	item	0.15	120	9.00	9.00					18.00
Home Economist	item	0.15	120	9.00	9.00					18.00
MOA staff - salaries:										
Crops Officer	person yr									
Extension Coordinator	person yr									
Rural Technology Dev Officer	person yr									
Home Economist	person yr									
	subtotal			375.42	251.82	113.22	238.22	113.22	113.22	1205.12
TOTAL CROP DEVELOPMENT				375.42	251.82	153.22	238.22	113.22	113.22	1245.12

(cont...)

TABLE 2.2.6: SOIL & WATER CONSERVATION, CROP DEVELOPMENT & ADMINISTRATION BUDGET - MUTOMO DIVISION (cont. 2)

	Unit	'000Ksh Unit cost	No.	1989/90	PY1 1990/91	PY2 1991/92	PY3 1992/93	PY4 1993/94	PY5 1994/95	TOTAL
ADMINISTRATION										
Workshop:										
Equipment replacement:	ann'l sum	30.00	2	30.00	30.00					60.00
Generator: operating costs	ann'l sum	84.00	2	84.00	84.00					168.00
Danida staff - salaries:										
Workshop Foreman	person yr	63.00	2	63.00	63.00					126.00
Assistant Foreman	person yr	29.00	2	29.00	29.00					58.00
Mechanics	person yr	18.00	7	72.00	54.00					126.00
Storekeepers	person yr	13.00	4	26.00	26.00					52.00
Trainees	person yr	13.00	6	39.00	39.00					78.00
MOA staff - salaries:										
Typists (3)										
Messengers (2)										
Drivers (1)										
TOTAL ADMINISTRATION				343.00	325.00	0.00	0.00	0.00	0.00	668.00
WATER CONSERVATION										
OPERATING										
Transport:										
Pick-up 4WD (1)	1000km	6.00	130	180.00	180.00	90.00	60.00			510.00
Lorries (3.5 T) (1)	1000km	8.00	40	160.00	160.00					320.00
Tractors (3-->0)	500hrs	50.00	7	150.00	100.00	50.00				300.00
Motorbikes (5-->3)	1000km	1.50	120	75.00	45.00	30.00	30.00			180.00
Running cost constr.eq.				20.00	15.00					35.00
Materials and tools	sum			500.00	300.00					800.00
Subcontracts:										
Skilled Labour (E6/T)	sum			300.00	300.00					600.00
Transport (oxcart)	item	10.00	10	50.00	50.00					100.00
MOA staff - per diems:										
Drivers	item	0.10				15.00	10.00			25.00
MOA staff - salaries:										
Drivers (2)	person/yr									
Programme paid staff - salaries:										
Senior Foremen (1)	person yr	72.00	2	72.00	72.00					144.00
Junior Foremen (1)	person yr	18.00	2	18.00	18.00					36.00
Artisans (10-->0)	person yr	16.00	10	96.00	64.00					160.00
Storekeeper (1)	person yr	13.00	1	13.00	0.00					13.00
Maintenance fundi (3)	person yr	12.00	9	36.00	36.00	36.00				108.00
Drivers (6-->0)	person yr	16.00	9	80.00	64.00					144.00
TOTAL WATER CONSERVATION				1750.00	1404.00	221.00	100.00	0.00	0.00	3475.00
TOTAL SOIL & WATER CONSERVATION, EXTENSION & ADMIN.				5147.32	4499.52	2204.37	1536.32	1116.97	1116.97	15621.47

* 1989/90 is the start-up period for KIDP. During this period and prior to the hand over to KIDP, the work in Mutomo Division will be managed by RSWCP.

** No water construction activities are planned for Mutomo Division after 1992/93.

TABLE 2.2.7: WATER CONSERVATION BUDGET -
SUMMARY BY DIVISION

	1989/90	PY1 1990/91	PY2 1991/92	PY3 1992/93	PY4 1993/94	PY5 1994/95	TOTAL
CENTRAL DIVISION	0.00	0.00	3612.76	2430.23	2504.20	2300.00	10847.19
KYUSO DIVISION	0.00	3772.08	2812.31	2257.09	2160.00	4740.00	15741.48
MWINGI DIVISION	0.00	178.67	3340.07	2841.17	2401.82	2300.00	11061.73
MUTITO DIVISION	0.00	3672.43	2298.95	2090.00	2100.00	4660.00	14821.38
MUTOMO DIVISION	1750.00	1404.00	221.00	100.00	0.00	0.00	3475.00
TOTAL	1750.00	9027.18	12285.09	9718.49	9166.02	14000.00	55946.78

**TABLE 3.1: RURAL WATER SUPPLY BUDGET
GRAND TOTAL BY DIVISION**

	1989/90	PY1 1990/91	PY2 1991/92	PY3 1992/93	PY4 1993/94	PY5 1994/95	TOTAL
KITUI DISTRICT HQ	0.00	1374.00	474.00	348.00	348.00	1528.00	4072.00
CENTRAL DIVISION	0.00	0.00	2159.69	1730.98	1368.00	1349.00	6607.67
KYUSO DIVISION	0.00	2024.50	1681.59	1540.02	1099.00	2339.00	8684.11
MWINGI DIVISION	0.00	0.00	1768.40	1097.00	1099.00	599.00	4563.40
MUTITO DIVISION	0.00	2043.96	1057.00	1399.00	1099.00	2339.00	7937.96
MUTOMO DIVISION	0.00	1579.00	1679.00	0.00	0.00	0.00	3258.00
TOTAL	0.00	7021.46	8819.68	6115.00	5013.00	8154.00	35123.14

TABLE 3.1.1: RURAL WATER SUPPLY BUDGET - KITUI DISTRICT HQ

	Unit	'000 KSh Unit Cost	No.	1989/90	PY1 1990/91	PY2 1991/92	PY3 1992/93	PY4 1993/94	PY5 1994/95	TOTAL
CAPITAL										
Transport:										
Pickup 4WD	item	500.00	2		500.00				500.00	1000.00
Lorry (3.5 T)	item	600.00	2		600.00				600.00	1200.00
Motorbikes	item	40.00	4		80.00				80.00	160.00
Equipment:										
Surveying set	item	20.00	2			40.00				40.00
Hand-drilling rig	item	50.00	1			50.00				50.00
EC-tester	item	8.00	2			16.00				16.00
Drawing eq.	item	10.00	2			20.00				20.00
subtotal				0.00	1180.00	126.00	0.00	0.00	1180.00	2486.00
OPERATING										
Transport:										
Pick-up 4WD (1)	1000km	6.00	135		90.00	180.00	180.00	180.00	180.00	810.00
Motorbikes (2)	1000km	1.50	90		15.00	30.00	30.00	30.00	30.00	135.00
Office:										
Phone, post stationery	ann sum	12.00	4.5		6.00	12.00	12.00	12.00	12.00	54.00
MOWD staff - per diems:										
DWE	item	0.30	90		3.00	6.00	6.00	6.00	6.00	27.00
Senior Water Inspector	item	0.20	225		5.00	10.00	10.00	10.00	10.00	45.00
Water Inspectors (2)	item	0.20	450		10.00	20.00	20.00	20.00	20.00	90.00
Geologist (1)	item	0.20	90		2.00	4.00	4.00	4.00	4.00	18.00
Engineering Assts (2)	item	0.15	600		10.00	20.00	20.00	20.00	20.00	90.00
Survey Asst (1)	item	0.15	135		3.00	6.00	6.00	6.00	6.00	27.00
Masons (2)	item	0.10	700		10.00	15.00	15.00	15.00	15.00	70.00
Plumbers (2)	item	0.10	700		10.00	15.00	15.00	15.00	15.00	70.00
Drivers (2)	item	0.15	1000		30.00	30.00	30.00	30.00	30.00	150.00
MOWD staff - salaries:										
DWE	person/yr									
Sr Water Inspector	person/yr									
Water Inspectors (2)	person/yr									
Geologist (1)	person/yr									
Engineering Assts (2)	person/yr									
Draughtsman (1)	person/yr									
Survey Asst (1)	person/yr									
Masons (2)	person/yr									
Plumbers (2)	person/yr									
Drivers (2)	person/yr									
subtotal				0.00	194.00	348.00	348.00	348.00	348.00	1586.00
TOTAL				0.00	1374.00	474.00	348.00	348.00	1528.00	4072.00

TABLE 3.1.2: RURAL WATER SUPPLY BUDGET - CENTRAL DIVISION

	Unit	'000 KSh Unit Cost	No.	1989/90	PY1 1990/91	PY2 1991/92	PY3 1992/93	PY4 1993/94	PY5 1994/95	TOTAL
CAPITAL										
Transport:										
Pickup 4WD (1)	item	500.00	1			500.00				500.00
Motorbike (1)	item	40.00	1			40.00				40.00
Equipment:										
Concrete mixer	item	50.00	1			50.00				50.00
Tractor + trailer	item	700.00	1			700.00				700.00
Water bowser	item	50.00	1			50.00				50.00
Uni-ports	item	15.00	4			60.00				60.00
Water pump	item	20.00	1			20.00				20.00
subtotal				0.00	0.00	1420.00	0.00	0.00	0.00	1420.00
OPERATING										
Transport:										
Pick-up 4WD (1)	1000km	6.00	105			90.00	180.00	180.00	180.00	630.00
Tractor (1)	500hrs	50.00	3.5			25.00	50.00	50.00	50.00	175.00
Motorbike (1)	1000km	1.50	36			9.00	15.00	15.00	15.00	54.00
Running cost constr.eq.						2.50	5.00	5.00	5.00	17.50
Materials and tools	sum					100.00	200.00	200.00	200.00	700.00
Subcontracts:										
Rehabilitation (except desilting)	sum					60.19	33.98	19.00		113.17
Earth dams desilting	item	100.00	10			400.00	600.00			1000.00
Earth dams construction	item	250.00	8			0.00	500.00	750.00	750.00	2000.00
Skilled labour	item					0.00	50.00	50.00	50.00	150.00
Transport	item					0.00	20.00	20.00	20.00	60.00
MOWD staff - per diems:										
Div Water Inspector (1)	item	0.20	150			2.00	8.00	10.00	10.00	30.00
Water Inspector (1)	item	0.15	220			6.00	9.00	9.00	9.00	33.00
Engineering Assts (2)	item	0.15	500			30.00	30.00	30.00	30.00	120.00
Drivers (2)	item	0.15	700			15.00	30.00	30.00	30.00	105.00
MOWD staff - salaries:										
Div Water Inspector (1)	person/yr									
Water Inspector (1)	person/yr									
Engineering Assts (2)	person/yr									
Drivers (2)	person/yr									
subtotal				0.00	0.00	739.69	1730.98	1368.00	1349.00	5187.67
TOTAL				0.00	0.00	2159.69	1730.98	1368.00	1349.00	6607.67

TABLE 3.1.3: RURAL WATER SUPPLY BUDGET - KYUSO DIVISION

	Unit	'000 KSh Unit Cost	No.	1989/90	PY1 1990/91	PY2 1991/92	PY3 1992/93	PY4 1993/94	PY5 1994/95	TOTAL
CAPITAL										
Transport:										
Pickup 4WD	item	500.00	2		500.00				500.00	1000.00
Motorbike	item	40.00	2		40.00				40.00	80.00
Equipment:										
Concrete mixer	item	50.00	1		50.00					50.00
Tractor + trailer	item	700.00	2		700.00				700.00	1400.00
Water bowser	item	50.00	1		50.00					50.00
Water pump	item	20.00	1		20.00					20.00
Uni-ports	item	15.00	4			60.00				60.00
subtotal				0.00	1360.00	60.00	0.00	0.00	1240.00	2660.00
OPERATING										
Transport:										
Pick-up 4WD (2)	1000km	6.00	135		90.00	180.00	180.00	180.00	180.00	810.00
Tractor (1)	500hrs	50.00	4.5		25.00	50.00	50.00	50.00	50.00	225.00
Motorbike (1)	1000km	1.50	46		9.00	15.00	15.00	15.00	15.00	69.00
Running cost constr.eq.					2.50	5.00	5.00	5.00	5.00	22.50
Materials and tools	sum				100.00	200.00	200.00	200.00	200.00	900.00
Subcontracts:										
Rehabilitation (except desilting)	sum					174.59	41.02	0.00	0.00	215.61
Earth dams desilting	item	100.00	14		400.00	600.00	400.00	0.00	0.00	1400.00
Earth dams construction	item	250.00	7			250.00	500.00	500.00	500.00	1750.00
Skilled labour	item					50.00	50.00	50.00	50.00	200.00
Transport	item					20.00	20.00	20.00	20.00	80.00
MOWD staff - per diems:										
Div Water Inspector (1)	item	0.20	200		2.00	8.00	10.00	10.00	10.00	40.00
Water Inspector (1)	item	0.15	280		6.00	9.00	9.00	9.00	9.00	42.00
Engineering Assts (2)	item	0.15	900		15.00	30.00	30.00	30.00	30.00	135.00
Drivers (2)	item	0.15	900		15.00	30.00	30.00	30.00	30.00	135.00
MOWD staff - salaries:										
Div Water Inspector (1)	person/yr									
Water Inspector (1)	person/yr									
Engineering Assts (2)	person/yr									
Drivers (2)	person/yr									
subtotal				0.00	664.50	1621.59	1540.02	1099.00	1099.00	6024.11
TOTAL				0.00	2024.50	1681.59	1540.02	1099.00	2339.00	8684.11

TABLE 3.1.4: RURAL WATER SUPPLY BUDGET - MWINGI DIVISION

	Unit	'000 KSh Unit Cost	No.	1989/90	PY1 1990/91	PY2 1991/92	PY3 1992/93	PY4 1993/94	PY5 1994/95	TOTAL
CAPITAL										
Transport:										
Pickup 4WD	item	500.00	1			500.00				500.00
Motorbikes	item	40.00	1			40.00				40.00
Equipment:										
Concrete mixer	item	50.00	1			50.00				50.00
Tractor + trailer	item	700.00	1			700.00				700.00
Water bowser	item	50.00	1			50.00				50.00
Uni-ports	item	15.00	4			60.00				60.00
Water pump	item	20.00	1			20.00				20.00
subtotal				0.00	0.00	1370.00	0.00	0.00	0.00	1370.00
OPERATING										
Transport:										
Pick-up 4WD (1)	1000km	6.00	105			90.00	180.00	180.00	180.00	630.00
Tractor (1)	500hrs	50.00	3.5			25.00	50.00	50.00	50.00	175.00
Motorbike (1)	1000km	1.50	36			9.00	15.00	15.00	15.00	54.00
Running cost constr.eq.						2.50	5.00	5.00	5.00	17.50
Materials and tools	sum					100.00	200.00	200.00	200.00	700.00
Subcontracts:										
Rehabilitation (except desilting)	sum					18.90				18.90
Earth dams desilting	item	100.00	1			100.00				100.00
Earth dams construction	item	250.00	4				500.00	500.00		1000.00
Skilled labour	item						50.00	50.00	50.00	150.00
Transport	item						20.00	20.00	20.00	60.00
MOWD staff - per diems:										
Div Water Inspector (1)	item	0.20	150			2.00	8.00	10.00	10.00	30.00
Water Inspector (1)	item	0.15	220			6.00	9.00	9.00	9.00	33.00
Engineering Assts (2)	item	0.15	500			30.00	30.00	30.00	30.00	120.00
Drivers (2)	item	0.15	700			15.00	30.00	30.00	30.00	105.00
MOWD staff - salaries:										
Div Water Inspector	person/yr									
Water Inspector	person/yr									
Engineering Assts	person/yr									
Drivers (2)	person/yr									
subtotal				0.00	0.00	398.40	1097.00	1099.00	599.00	3193.40
TOTAL				0.00	0.00	1768.40	1097.00	1099.00	599.00	4563.40

TABLE 3.1.5: RURAL WATER SUPPLY BUDGET - MUTITO DIVISION

	Unit	'000 KSh Unit Cost	No.	1989/90	PY1 1990/91	PY2 1991/92	PY3 1992/93	PY4 1993/94	PY5 1994/95	TOTAL
CAPITAL										
Transport:										
Pickup 4WD	item	500.00	2		500.00				500.00	1000.00
Motorbikes	item	40.00	2		40.00				40.00	80.00
Equipment:										
Concrete mixer	item	50.00	1		50.00					50.00
Tractor + trailer	item	700.00	2		700.00				700.00	1400.00
Water bowser	item	50.00	1		50.00					50.00
Water pump	item	20.00	1		20.00					20.00
Uni-ports	item	15.00	4			60.00				60.00
subtotal				0.00	1360.00	60.00	0.00	0.00	1240.00	2660.00
OPERATING										
Transport:										
Pick-up 4WD (2)	1000km	6.00	135		90.00	180.00	180.00	180.00	180.00	810.00
Tractor (2)	500hrs	50.00	4.5		25.00	50.00	50.00	50.00	50.00	225.00
Motorbike (2)	1000km	1.50	46		9.00	15.00	15.00	15.00	15.00	69.00
Running cost constr.eq.					2.50	5.00	5.00	5.00	5.00	22.50
Materials and tools	sum				100.00	200.00	200.00	200.00	200.00	900.00
Subcontracts:										
Rehabilitation (except desilting)	sum				19.46					19.46
Earth dams desilting	item	100.00	11		400.00	400.00	300.00			1100.00
Earth dams construction	item	250.00	6				500.00	500.00	500.00	1500.00
Skilled labour	item					50.00	50.00	50.00	50.00	200.00
Transport	item					20.00	20.00	20.00	20.00	80.00
MOWD staff - per diems:										
Div Water Inspector (1)	item	0.20	200		2.00	8.00	10.00	10.00	10.00	40.00
Water Inspector (1)	item	0.15	280		6.00	9.00	9.00	9.00	9.00	42.00
Engineering Assts (2)	item	0.15	900		15.00	30.00	30.00	30.00	30.00	135.00
Drivers (2)	item	0.15	900		15.00	30.00	30.00	30.00	30.00	135.00
MOWD staff - salaries:										
Div Water Inspector (1)	person/yr									
Water Inspector (1)	person/yr									
Engineering Assts (2)	person/yr									
Drivers (2)	person/yr									
subtotal				0.00	683.96	997.00	1399.00	1099.00	1099.00	5277.96
TOTAL				0.00	2043.96	1057.00	1399.00	1099.00	2339.00	7937.96

TABLE 3.1.6: RURAL WATER SUPPLY BUDGET - MUTOMO DIVISION

	Unit	'000 KSh Unit Cost	No.	1989/90	PY1 1990/91	PY2 1991/92	PY3 1992/93	PY4 1993/94	PY5 1994/95	TOTAL
OPERATING										
Subcontracts:										
Rehabilitation (except desilting)	sum									0.00
Earth Dams construction	item	250.00	8		1000.00	1000.00				2000.00
Earth Dams desilting	item	100.00	11		500.00	600.00				1100.00
MOWD staff - per diems:										
Div Water Inspector (1)	item	0.20	200		10.00	10.00				20.00
Water Inspector (1)	item	0.15	280		9.00	9.00				18.00
Engineering Assts (2)	item	0.15	900		30.00	30.00				60.00
Drivers (2)	item	0.15	900		30.00	30.00				60.00
MOWD staff - salaries:										
Div Water Inspector (1)	person/yr									
Water Inspector (1)	person/yr									
Engineering Assts (2)	person/yr									
Drivers (2)	person/yr									
TOTAL				0.00	1579.00	1679.00	0.00	0.00	0.00	3258.00

NOTE: Vehicles to be provided from MOWD Kitui District HQ
for work in Mutomo Division in PY1 and PY2.
Supervision to be done by Divisional team



TABLE 4.1: LIVESTOCK DEVELOPMENT BUDGET -
TOTAL BY DEPARTMENTS

	1989/90	PY1 1990/91	PY2 1991/92	PY3 1992/93	PY4 1993/94	PY5 1994/95	TOTAL
WORLD	0.00	2503.28	62.58	62.58	62.58	62.58	2753.6
VETERINARY DEPT.	0.00	4667.14	6102.10	5017.09	4384.09	7275.09	27445.51
LIVESTOCK PRODUCTION DEPT	0.00	2166.70	4809.80	2154.80	2154.80	4034.80	15320.90
TOTAL	0.00	9337.12	10974.48	7234.47	6601.47	11372.47	45520.01

TABLE 4.2: LIVESTOCK DEVELOPMENT BUDGET -
TOTAL BY DIVISIONS

	1989/90	PY1 1990/91	PY2 1991/92	PY3 1992/93	PY4 1993/94	PY5 1994/95	TOTAL
KITUI DISTRICT HQ	0.00	2882.00	2632.50	2873.60	2885.10	4220.10	15493.30
CENTRAL DIVISION	0.00	191.44	1989.68	935.67	740.67	812.67	4670.13
KYUSO DIVISION	0.00	1779.33	1622.16	843.26	743.26	1959.26	6947.27
MWINGI DIVISION	0.00	1735.36	1531.06	915.66	766.16	1482.16	6430.40
MUTITO DIVISION	0.00	1808.89	1622.90	844.00	744.00	1460.00	6479.79
MUTOMO DIVISION	0.00	940.10	1576.18	822.28	722.28	1438.28	5499.12
TOTAL	0.00	9337.12	10974.48	7234.47	6601.47	11372.47	45520.01

TABLE 4.2.1: LIVESTOCK DEVELOPMENT BUDGET -
KITUI DISTRICT HQ

	Unit	'000Ksh Unit cost	No.	1989/90	PY1 1990/91	PY2 1991/92	PY3 1992/93	PY4 1993/94	PY5 1994/95	TOTAL
DISTRICT VETERINARY OFFICER										
CAPITAL										
Buildings:										
Store for drugs (Kitui)	m ²	4.00	56			224.00				224.00
Equipment:										
Deep freeze 3m ²	item	52.00	1			52.00				52.00
mass vaccination *	set	10.00	5		20.00	10.00	10.00	10.00		50.00
cool boxes	set	15.00	5		30.00	15.00	15.00	15.00		75.00
Transport:										
4WD Pick-up LWB (mass vacc. follow-up)	item	500.00	2		500.00				500.00	1000.00
Motorbike (H & S)	item	40.00	2		40.00				40.00	80.00
subtotal				0.00	590.00	301.00	25.00	25.00	540.00	1481.00
OPERATING										
Building maintenance:										
2.5% of capital cost p.a.	ann'l sum	5.60	3				5.60	5.60	5.60	16.80
Transport:										
4WD Pick-up LWB	1000km	6.00	135		90.00	180.00	180.00	180.00	180.00	810.00
Motorbike	1000km	1.50	45		7.50	15.00	15.00	15.00	15.00	67.50
Mass vaccination:										
Materials **	Division	11.50			23.00	34.50	46.00	57.50	57.50	218.50
Field study	sum	900.00	1		900.00					900.00
CCPP vaccination:										
Pilot trials	sum	1500.00	1			1500.00				1500.00
Mass vaccination	sum	2000.00	3				2000.00	2000.00	2000.00	6000.00
Office:										
Stationery etc.	ann'l sum	20.00	5		20.00	20.00	20.00	20.00	20.00	100.00
Electricity charges	ann'l sum	25.00	4			25.00	25.00	25.00	25.00	100.00
Training courses: for staff	personday	0.15	600		18.00	18.00	18.00	18.00	18.00	90.00
Staff - per diems:										
DVD	item	0.30	270		9.00	18.00	18.00	18.00	18.00	81.00
VD (1)	item	0.20	270		6.00	12.00	12.00	12.00	12.00	54.00
Livestock Officer (1)	item	0.15	270		4.50	9.00	9.00	9.00	9.00	40.50
Driver (1)	item	0.15	270		4.50	9.00	9.00	9.00	9.00	40.50
Staff - salaries:										
DVD										
VD (1)										
Livestock Officer (1)										
Executive Asst. (1)										
Driver (1)										
Clerical Officers (2)										
subtotal					1082.50	1840.50	2357.60	2369.10	2369.10	10018.80
TOTAL DISTRICT VET. OFFICER					1672.50	2141.50	2382.60	2394.10	2909.10	11499.80

*Mass vaccination equipment: syringes (20), needles, sterilizers, forceps, etc.; two Divisions PY1, 3 in PY2, 4 in PY3, 5 in PY5

**Mass vaccination materials: needles, kerosene, cotton wool etc. (bovine vaccine supplied by 60K/JP).

(cont...)

TABLE 4.2.1: LIVESTOCK DEVELOPMENT BUDGET -
KITUI DISTRICT HQ (cont.)

	Unit	'000Ksh Unit cost	No.	1989/90	PY1 1990/91	PY2 1991/92	PY3 1992/93	PY4 1993/94	PY5 1994/95	TOTAL
DISTRICT LIVESTOCK PRODUCTION OFFICER										
CAPITAL										
Furniture:										
Office	sum	50.00	1		50.00					50.00
Transport:										
4WD Station Wagon LWB (DLPO, Livestock Dev. Officer)	item	700.00	2		700.00				700.00	1400.00
Motorbikes (DLMO, DRPO, DAPO)	item	40.00	6		120.00				120.00	240.00
subtotal				0.00	870.00	0.00	0.00	0.00	820.00	1690.00
OPERATING										
Transport:										
4WD Station Wagon LWB (1)	1000km	6.00	135		90.00	180.00	180.00	180.00	180.00	810.00
Motorbikes (3)	1000km	1.50	135		22.50	45.00	45.00	45.00	45.00	202.50
Offices:										
Stationery etc.	ann'l sum	20.00	5		20.00	20.00	20.00	20.00	20.00	100.00
Training courses: For staff	personday	0.15	600		18.00	18.00	18.00	18.00	18.00	90.00
Staff - salaries: Livestock Dev. Officer *	person yr	150.00	5		150.00	150.00	150.00	150.00	150.00	750.00
Staff - per diems:										
DLPO	item	0.30	270		9.00	18.00	18.00	18.00	18.00	81.00
DRO	item	0.20	270		6.00	12.00	12.00	12.00	12.00	54.00
DAPO	item	0.20	270		6.00	12.00	12.00	12.00	12.00	54.00
DLMO	item	0.20	270		6.00	12.00	12.00	12.00	12.00	54.00
DRP	item	0.20	270		6.00	12.00	12.00	12.00	12.00	54.00
LDO	item	0.20	270		6.00	12.00	12.00	12.00	12.00	54.00
Staff - salaries:										
DLPO										
DRO										
DAPO										
DLMO										
DRP										
LDO										
Drivers (2)										
Clerical Assistants (2)										
subtotal				0.00	339.50	491.00	491.00	491.00	491.00	2303.50
TOTAL DISTRICT LIVESTOCK PROD'N OFFICER				0.00	1209.50	491.00	491.00	491.00	1311.00	3993.50
TOTAL DISTRICT HQ				0.00	2882.00	2632.50	2873.60	2885.10	4220.10	15493.30

* Danida contract

TABLE 4.2.2: LIVESTOCK DEVELOPMENT BUDGET -
CENTRAL DIVISION

	Unit	'000Ksh Unit cost	No.	1989/90	PY1 1990/91	PY2 1991/92	PY3 1992/93	PY4 1993/94	PY5 1994/95	TOTAL
DIVISIONAL VETERINARY OFFICER										
CAPITAL										
Buildings:*										
Offices	m ²	4.30	52			223.60				223.60
Cattle crush	item	15.00	8				120.00			120.00
Furniture:										
Office	set	25.00	2				50.00			50.00
Transport:										
4WD Pick-up LWB	item	500.00	1			500.00				500.00
Motorbikes	item	40.00	5			80.00	80.00	40.00		200.00
Bicycles	item	4.00	6			24.00				24.00
subtotal				0.00	0.00	827.60	250.00	40.00	0.00	1117.60
OPERATING										
Buildings maintenance:										
2.5% of capital cost p.a.	ann'l sum	5.59	3				5.59	5.59	5.59	16.77
Transport:										
4WD Pick-up LWB	1000km	6.00	120			180.00	180.00	180.00	180.00	720.00
Motorbikes (5)	1000km	1.50	160			30.00	60.00	75.00	75.00	240.00
Bike allowances (6)	bike yr	0.72	24			4.32	4.32	4.32	4.32	17.28
Office:										
Stationery etc.	ann'l sum	10.00	3				10.00	10.00	10.00	30.00
Training courses:										
for chiefs, groups etc.	personday	0.15	420			9.00	18.00	18.00	18.00	63.00
Staff - per diems:										
Veterinary Officer (1)	item	0.20	240			12.00	12.00	12.00	12.00	48.00
Livestock Officer (1)	item	0.15	240			9.00	9.00	9.00	9.00	36.00
Animal Health Assts (10)	item	0.15	1200			45.00	45.00	45.00	45.00	180.00
Driver (1)	item	0.15	240			9.00	9.00	9.00	9.00	36.00
Staff - salaries:										
Veterinary Officer (1)										
Livestock Officer (1)										
Animal Health Assts (10)										
Driver (1)										
Clerical Officer (1)										
subtotal				0.00	0.00	298.32	352.91	367.91	367.91	1387.05
TOTAL DIVISIONAL VETERINARY OFFICER				0.00	0.00	1125.92	602.91	407.91	367.91	2504.65

* Detailed costings and design to be prepared.

(cont...)

TABLE 4.2.2: LIVESTOCK DEVELOPMENT BUDGET -
CENTRAL DIVISION (cont.)

	Unit	'000Ksh Unit cost	No.	1989/90	PY1 1990/91	PY2 1991/92	PY3 1992/93	PY4 1993/94	PY5 1994/95	TOTAL
DIVISIONAL LIVESTOCK EXTNSN OFFICER										
CAPITAL										
Offices:										
Furniture	set	25.00	1		25.00					25.00
Pin board	m ²	0.01	6		0.06					0.06
Survey Equipment:	set	5.00	1		5.00					5.00
Transport:										
4WD Pick-up LWB	item	500.00	1			500.00				500.00
Motorbikes (DLED, AAPD, ARD)	item	40.00	5		80.00	40.00			80.00	200.00
Bicycles (TRAs, TAs)	item	4.00	16		32.00				32.00	64.00
subtotal				0.00	142.06	540.00	0.00	0.00	112.00	794.06
OPERATING										
Transport:										
4WD Pick-up LWB	1000km	6.00	120			180.00	180.00	180.00	180.00	720.00
Motorbikes	1000km	1.50	130		15.00	45.00	45.00	45.00	45.00	195.00
Bicycle allowances	bike yr	0.72	36		2.88	5.76	5.76	5.76	5.76	25.92
Office:										
Stationery etc.	ann'l sum	10.00	4			10.00	10.00	10.00	10.00	40.00
Maintenance of furniture and equipment	ann'l sum	2.00	4			2.00	2.00	2.00	2.00	8.00
Training courses:										
For chiefs and groups etc.	personday	0.15	420			9.00	18.00	18.00	18.00	63.00
Staff - per diems:										
DLED	item	0.15	270		4.50	9.00	9.00	9.00	9.00	40.50
AAPD	item	0.15	270		4.50	9.00	9.00	9.00	9.00	40.50
ARD	item	0.15	270		4.50	9.00	9.00	9.00	9.00	40.50
TRAs and TAs (8)	item	0.15	1080		18.00	36.00	36.00	36.00	36.00	162.00
Driver (1)	item	0.15	240			9.00	9.00	9.00	9.00	36.00
Staff - salaries:										
DLED										
AAPD										
ARD										
TRAs and TAs (8)										
Driver (1)										
subtotal				0.00	49.38	323.76	332.76	332.76	332.76	1371.42
TOTAL DIVISIONAL LEO				0.00	191.44	863.76	332.76	332.76	444.76	2165.48
TOTAL CENTRAL DIVISION				0.00	191.44	1989.68	935.67	740.67	812.67	4670.13

TABLE 4.2.3: LIVESTOCK DEVELOPMENT BUDGET - KYUSO DIVISION

	Unit	'000Ksh Unit cost	No.	1989/90	PY1 1990/91	PY2 1991/92	PY3 1992/93	PY4 1993/94	PY5 1994/95	TOTAL
MOLD										
CAPITAL										
Buildings:										
Staff housing	m ²	4.70	62		293.82					293.82
Office, laboratory, store	m ²	3.61	68		245.41					245.41
Farmers' classroom	m ²	3.13	56		175.00					175.00
Fencing	sum	100.00	1		100.00					100.00
Livestock handling facilities*					25.00					25.00
subtotal				0.00	839.23	0.00	0.00	0.00	0.00	839.23
OPERATING										
Building maintenance:										
2.5% of capital cost p.a.	ann'l sum	20.98	4		0.00	20.98	20.98	20.98	20.98	83.92
TOTAL MOLD				0.00	839.23	20.98	20.98	20.98	20.98	923.15
DIVISIONAL VETERINARY OFFICER										
CAPITAL										
Cattle crush:	item	15.00	8			60.00	60.00			120.00
Furniture:										
Pinboard	m ²	0.10	6			0.60				0.60
Office **	set	25.00	1			25.00				25.00
Laboratory ***	sum	25.00	1			25.00				25.00
Equipment:										
Microscopes	item	16.50	3			49.50				49.50
Refrigerator, solar panel and battery	item	57.00	2			114.00				114.00
Misc. lab. equipment	sum	30.00	1			30.00				30.00
Transport:										
4WD Pick-up LWB	item	500.00	2		500.00				500.00	1000.00
Motorbikes	item	40.00	7		80.00	80.00	40.00		80.00	280.00
Bicycles	item	4.00	12		24.00				24.00	48.00
subtotal				0.00	604.00	384.10	100.00	0.00	604.00	1692.10
OPERATING										
Transport:										
4WD Pick-up LWB	1000km	6.00	135		90.00	180.00	180.00	180.00	180.00	810.00
Motorbikes (5)	1000km	1.50	200		15.00	60.00	75.00	75.00	75.00	300.00
Bicycle allowances	bike yr	0.72	27		2.16	4.32	4.32	4.32	4.32	19.44
Laboratory:										
Materials, chemicals	ann'l sum	15.00	4			15.00	15.00	15.00	15.00	60.00
Maintenance:										
Furniture & equipment @ 5%	ann'l sum	12.20	3			12.20	12.20	12.20	12.20	36.60
Office stationery etc.:	ann'l sum	10.00	4			10.00	10.00	10.00	10.00	40.00
Training Courses:										
for chiefs, groups, etc.	personday	0.15	420			9.00	18.00	18.00	18.00	63.00
Staff - per diems:										
Veterinary Officer (1)	item	0.20	270		6.00	12.00	12.00	12.00	12.00	54.00
Livestock Officer (1)	item	0.15	270		4.50	9.00	9.00	9.00	9.00	40.50
Animal Health Assistnts (10)	item	0.15	1350		22.50	45.00	45.00	45.00	45.00	202.50
Driver (1)	item	0.15	270		4.50	9.00	9.00	9.00	9.00	40.50
Staff - salaries:										
Veterinary Officer (1)										
Livestock Officer (1)										
Animal Health Assistnts (10)										
Driver (1)										
Clerical Officer										
subtotal				0.00	144.66	353.32	389.52	389.52	389.52	1666.54
TOTAL DIVISIONAL VETERINARY OFFICER				0.00	748.66	737.42	489.52	389.52	993.52	3358.64

* crush, spray race

** 1 desk, 1 typist's table, 2 chairs, bookcase, cupboard, filing cabinet, manual typewriter, telephone.

*** wooden bench 4m, cupboards below, sink, tiled splash-back, 3 stools.

(cont...)

TABLE 4.2.3: LIVESTOCK DEVELOPMENT BUDGET -
KYUSO DIVISION (cont.)

	Unit	'000Ksh Unit cost	No.	1989/90	PY1 1990/91	PY2 1991/92	PY3 1992/93	PY4 1993/94	PY5 1994/95	TOTAL
DIVISIONAL LIVESTOCK EXTENSION OFFICER										
CAPITAL										
Office:										
Furniture	set	25.00	1		25.00					25.00
Pin board	m ²	0.01	6		0.06					0.06
Survey Equipment:	set	5.00	1		5.00					5.00
Transport:										
4WD Pick-up LWB	item	500.00	2			500.00			500.00	1000.00
Motorbikes (DLED, AAPD, ARD)	item	40.00	5		80.00	40.00			80.00	200.00
Bicycles (TRAs, TAs)	item	4.00	16		32.00				32.00	64.00
subtotal				0.00	142.06	540.00	0.00	0.00	612.00	1294.06
OPERATING										
Transport:										
4WD Pick-up LWB	1000km	6.00	120			180.00	180.00	180.00	180.00	720.00
Motorbikes	1000km	1.50	130		15.00	45.00	45.00	45.00	45.00	195.00
Bicycle allowances	bike yr	0.72	36		2.88	5.76	5.76	5.76	5.76	25.92
Office:										
Stationery etc.	ann'l sum	10.00	4			10.00	10.00	10.00	10.00	40.00
Maintenance of furniture and equipment	ann'l sum	2.00	4			2.00	2.00	2.00	2.00	8.00
Training courses:										
For chiefs and groups etc.	personday	0.15	420			9.00	18.00	18.00	18.00	63.00
Staff - per diems:										
DLED	item	0.15	270		4.50	9.00	9.00	9.00	9.00	40.50
AAPD	item	0.15	270		4.50	9.00	9.00	9.00	9.00	40.50
ARD	item	0.15	270		4.50	9.00	9.00	9.00	9.00	40.50
TRAs and TAs (8)	item	0.15	1080		18.00	36.00	36.00	36.00	36.00	162.00
Driver (1)	item	0.15	240			9.00	9.00	9.00	9.00	36.00
Staff - salaries:										
DLED										
AAPD										
ARD										
TRAs and TAs (8)										
Driver (1)										
subtotal				0.00	49.38	323.76	332.76	332.76	332.76	1371.42
TOTAL DIVISIONAL LEO				0.00	191.44	863.76	332.76	332.76	944.76	2665.48
TOTAL KYUSO DIVISION				0.00	1779.33	1622.16	843.26	743.26	1959.26	6947.27

TABLE 4.2.4: LIVESTOCK DEVELOPMENT BUDGET - MWINGI DIVISION

	Unit	'000Ksh Unit cost	No.	1989/90	PY1 1990/91	PY2 1991/92	PY3 1992/93	PY4 1993/94	PY5 1994/95	TOTAL
MOLD										
CAPITAL										
Buildings:										
Office, laboratory, store	m ²	3.89	68		264.34					264.34
Farmers' classroom	m ²	3.00	56		168.00					168.00
Fencing					100.00					100.00
Livestock handling facilities*					20.00					20.00
Staff housing	m ²	3.91	62		242.92					242.92
subtotal				0.00	795.26	0.00	0.00	0.00	0.00	795.26
OPERATING										
Buildings maintenance:										
2.5% of capital costs p.a.	ann'l sum	19.88	4			19.88	19.88	19.88	19.88	79.52
TOTAL MOLD				0.00	795.26	19.88	19.88	19.88	19.88	874.78
DIVISIONAL VETERINARY OFFICER										
CAPITAL										
Cattle crush:	item	15.00	8			60.00	60.00			120.00
Furniture:										
Pinboard	m ²	0.10	6			0.60				0.60
Office **	set	25.00	1			25.00				25.00
Laboratory ***	sum	25.00	1			25.00				25.00
Equipment:										
Microscopes	item	16.50	3			49.50				49.50
Mains electric fridge	item	16.50	1				16.50			16.50
Deep freeze 2m3	item	33.00	1				33.00			33.00
Misc. lab. equipment	sum	30.00	1			30.00				30.00
Transport:										
4WD Pick-up LWB	item	500.00	2		500.00				500.00	1000.00
Motorbikes	item	40.00	7		80.00	80.00	40.00		80.00	280.00
Bicycles	item	4.00	12		24.00				24.00	48.00
subtotal				0.00	604.00	270.10	149.50	0.00	604.00	1627.60
OPERATING										
Transport:										
4WD Pick-up LWB	1000km	6.00	135		90.00	180.00	180.00	180.00	180.00	810.00
Motorbikes	1000km	1.50	200		15.00	60.00	75.00	75.00	75.00	300.00
Bicycle allowances	bike yr	0.72	27		2.16	4.32	4.32	4.32	4.32	19.44
Laboratory:										
Materials, chemicals	ann'l sum	15.00	4			15.00	15.00	15.00	15.00	60.00
Maintenance:										
Furniture & equipment @ 5%	ann'l sum	12.20	3				12.20	12.20	12.20	36.60
Office:										
Stationery, etc.	ann'l sum	10.00	4			10.00	10.00	10.00	10.00	40.00
Electricity charges	ann'l sum	24.00	4			24.00	24.00	24.00	24.00	96.00
Training Courses:										
for chiefs, groups, etc.	personday	0.15	420			9.00	18.00	18.00	18.00	63.00
Staff - per diems:										
Veterinary Officer (1)	item	0.20	270		6.00	12.00	12.00	12.00	12.00	54.00
Livestock Officer (1)	item	0.15	270		4.50	9.00	9.00	9.00	9.00	40.50
Animal Health Assistnts (10)	item	0.15	1350		22.50	45.00	45.00	45.00	45.00	202.50
Driver (1)	item	0.15	270		4.50	9.00	9.00	9.00	9.00	40.50
Staff - salaries:										
Veterinary Officer (1)										
Livestock Officer (1)										
Animal Health Assistnts (10)										
Driver (1)										
Clerical Officer										
subtotal				0.00	144.66	377.32	413.52	413.52	413.52	1762.54
TOTAL DIV. VET. OFFICER				0.00	748.66	647.42	563.02	413.52	1017.52	3390.14

* crush, spray race

** 1 desk, 1 typist's table, 2 chairs, bookcase, cupboard, filing cabinet, manual typewriter, telephone.

*** wooden bench 4m, cupboards below, sink, tiled splash-back, 3 stools.

(cont...)

TABLE 4.2.4: LIVESTOCK DEVELOPMENT BUDGET -
MWINGI DIVISION (cont.)

	Unit	'000Ksh Unit cost	No.	1989/90	PY1 1990/91	PY2 1991/92	PY3 1992/93	PY4 1993/94	PY5 1994/95	TOTAL
DIVISIONAL LIVESTOCK EXTENSION OFFICER										
CAPITAL										
Office:										
Furniture	set	25.00	1		25.00					25.00
Pin board	m ²	0.01	6		0.06					0.06
Survey Equipment:	set	5.00	1		5.00					5.00
Transport:										
4WD Pick-up LWB	item	500.00	1			500.00				500.00
Motorbikes (DLED, AAPD, ARD)	item	40.00	3		80.00	40.00			80.00	200.00
Bicycles (TRAs, TAs)	item	4.00	8		32.00				32.00	64.00
subtotal				0.00	142.06	540.00	0.00	0.00	112.00	794.06
OPERATING										
Transport:										
4WD Pick-up LWB	1000km	6.00	120			180.00	180.00	180.00	180.00	720.00
Motorbikes	1000km	1.50	130		15.00	45.00	45.00	45.00	45.00	195.00
Bicycle allowances	bike yr	0.72	36		2.88	5.76	5.76	5.76	5.76	25.92
Office:										
Stationery etc.	ann'l sum	10.00	4			10.00	10.00	10.00	10.00	40.00
Maintenance of furniture and equipment	ann'l sum	2.00	4			2.00	2.00	2.00	2.00	8.00
Training courses:										
For chiefs and groups etc.	personday	0.15	420			9.00	18.00	18.00	18.00	63.00
Staff - per diems:										
DLED	item	0.15	270		4.50	9.00	9.00	9.00	9.00	40.50
AAPD	item	0.15	270		4.50	9.00	9.00	9.00	9.00	40.50
ARD	item	0.15	270		4.50	9.00	9.00	9.00	9.00	40.50
TRAs and TAs (8)	item	0.15	1080		18.00	36.00	36.00	36.00	36.00	162.00
Driver (1)	item	0.15	240			9.00	9.00	9.00	9.00	36.00
Staff - salaries:										
DLED										
AAPD										
ARD										
TRAs and TAs (8)										
Driver (1)										
subtotal				0.00	49.38	323.76	332.76	332.76	332.76	1371.42
TOTAL DIVISIONAL LEO				0.00	191.44	863.76	332.76	332.76	444.76	2165.48
TOTAL MWINGI DIVISION				0.00	1735.36	1531.06	915.66	766.16	1482.16	6430.40

TABLE 4.2.5: LIVESTOCK DEVELOPMENT BUDGET - MUTITO DIVISION

	Unit	'000Ksh Unit cost	No.	1989/90	PY1 1990/91	PY2 1991/92	PY3 1992/93	PY4 1993/94	PY5 1994/95	TOTAL
MOLD										
CAPITAL										
Buildings:										
Staff housing	m ²	4.70	62		290.58					290.58
Office, laboratory, store	m ²	3.92	68		266.21					266.21
Farmers' classroom	m ²	3.25	56		182.00					182.00
Fencing		100.00			100.00					100.00
Livestock handling facilities*		30.00			30.00					30.00
subtotal				0.00	868.79	0.00	0.00	0.00	0.00	868.79
OPERATING										
Building maintenance: 2.5% of capital costs p.a.	ann'l sum	21.72	4		0.00	21.72	21.72	21.72	21.72	86.88
TOTAL MOLD				0.00	868.79	21.72	21.72	21.72	21.72	955.67
DIVISIONAL VETERINARY OFFICER										
CAPITAL										
Cattle crush:	item	15.00	8			60.00	60.00			120.00
Furniture:										
Pinboard	m ²	0.10	6			0.60				0.60
Office **	set	25.00	1			25.00				25.00
Laboratory ***	sum	25.00	1			25.00				25.00
Equipment:										
Microscopes	item	16.50	3			49.50				49.50
Refrigerator, solar panel and battery	item	57.00	2			114.00				114.00
Misc. lab. equipment	sum	30.00	1			30.00				30.00
Transport:										
4WD Pick-up LWB	item	500.00	2		500.00				500.00	1000.00
Motorbikes	item	40.00	7		80.00	80.00	40.00		80.00	280.00
Bicycles	item	4.00	12		24.00				24.00	48.00
subtotal				0.00	604.00	384.10	100.00	0.00	604.00	1692.10
OPERATING										
Transport:										
4WD Pick-up LWB	1000km	6.00	135		90.00	180.00	180.00	180.00	180.00	810.00
Motorbikes (7)	1000km	1.50	200		15.00	60.00	75.00	75.00	75.00	300.00
Bicycle allowances	bike yr	0.72	27		2.16	4.32	4.32	4.32	4.32	19.44
Laboratory:										
Materials, chemicals	ann'l sum	15.00	4			15.00	15.00	15.00	15.00	60.00
Maintenance:										
Furniture & equipment @ 5%	ann'l sum	12.20	3				12.20	12.20	12.20	36.60
Office stationery etc.:	ann'l sum	10.00	4			10.00	10.00	10.00	10.00	40.00
Training Courses:										
for chiefs, groups, etc.	personday	0.15	420			9.00	18.00	18.00	18.00	63.00
Staff - per diems:										
Veterinary Officer (1)	item	0.20	270		6.00	12.00	12.00	12.00	12.00	54.00
Livestock Officer (1)	item	0.15	270		4.50	9.00	9.00	9.00	9.00	40.50
Animal Health Assistnts (10)	item	0.15	1350		22.50	45.00	45.00	45.00	45.00	202.50
Driver (1)	item	0.15	270		4.50	9.00	9.00	9.00	9.00	40.50
Staff - salaries:										
Veterinary Officer (1)										
Livestock Officer (1)										
Animal Health Assistnts (10)										
Driver (1)										
Clerical Officer										
subtotal				0.00	144.66	353.32	389.52	389.52	389.52	1666.54
TOTAL DIVISIONAL VETERINARY OFFICER				0.00	748.66	737.42	489.52	389.52	993.52	3358.64

* crush, spray race

** 1 desk, 1 typist's table, 2 chairs, bookcase, cupboard, filing cabinet, manual typewriter, telephone.

*** wooden bench 4m, cupboards below, sink, tiled splash-back, 3 stools.

(cont...)

TABLE 4.2.5: LIVESTOCK DEVELOPMENT BUDGET -
MUTITO DIVISION (cont.)

	Unit	'000Ksh Unit cost	No.	1989/90	PY1 1990/91	PY2 1991/92	PY3 1992/93	PY4 1993/94	PY5 1994/95	TOTAL
DIVISIONAL LIVESTOCK EXTENSION OFFICER										
CAPITAL										
Office:										
Furniture	set	25.00	1		25.00					25.00
Pin board	m ²	0.01	6		0.06					0.06
Survey Equipment:	set	5.00	1		5.00					5.00
Transport:										
4WD Pick-up LWB	item	500.00	1			500.00				500.00
Motorbikes (DLED, AAPD, ARD)	item	40.00	5		80.00	40.00			80.00	200.00
Bicycles (TRAs, TAs)	item	4.00	16		32.00				32.00	64.00
subtotal				0.00	142.06	540.00	0.00	0.00	112.00	794.06
OPERATING										
Transport:										
4WD Pick-up LWB	1000km	6.00	120			180.00	180.00	180.00	180.00	720.00
Motorbikes	1000km	1.50	130		15.00	45.00	45.00	45.00	45.00	195.00
Bicycle allowances	bike yr	0.72	36		2.88	5.76	5.76	5.76	5.76	25.92
Office:										
Stationery etc.	ann'l sum	10.00	4			10.00	10.00	10.00	10.00	40.00
Maintenance of furniture and equipment	ann'l sum	2.00	4			2.00	2.00	2.00	2.00	8.00
Training courses:										
For chiefs and groups etc.	personday	0.15	420			9.00	18.00	18.00	18.00	63.00
Staff - per diems:										
DLED	item	0.15	270		4.50	9.00	9.00	9.00	9.00	40.50
AAPD	item	0.15	270		4.50	9.00	9.00	9.00	9.00	40.50
ARD	item	0.15	270		4.50	9.00	9.00	9.00	9.00	40.50
TRAs and TAs (8)	item	0.15	1080		18.00	36.00	36.00	36.00	36.00	162.00
Driver (1)	item	0.15	240			9.00	9.00	9.00	9.00	36.00
Staff - salaries:										
DLED										
AAPD										
ARD										
TRAs and TAs (8)										
Driver (1)										
subtotal				0.00	49.38	323.76	332.76	332.76	332.76	1371.42
TOTAL DIVISIONAL LEO				0.00	191.44	863.76	332.76	332.76	444.76	2165.48
TOTAL MUTITO DIVISION				0.00	1808.89	1622.90	844.00	744.00	1460.00	6479.79

TABLE 4.2.6: LIVESTOCK DEVELOPMENT BUDGET MUTOMO DIVISION

	Unit	'000Ksh Unit cost	No.	1989/90	PY1 1990/91	PY2 1991/92	PY3 1992/93	PY4 1993/94	PY5 1994/95	TOTAL
DIVISIONAL VETERINARY OFFICER										
CAPITAL										
Cattle crush:	item	15.00	8			60.00	60.00			120.00
Furniture:										
Pinboard	m ²	0.10	6			0.60				0.60
Laboratory *	sum	25.00	1			25.00				25.00
Equipment:										
Microscopes	item	16.50	3			49.50				49.50
Refrigerator, solar panel and battery	item	57.00	2			114.00				114.00
Misc. lab. equipment	sum	30.00	1			30.00				30.00
Transport:										
4WD Pick-up LWB	item	500.00	2		500.00				500.00	1000.00
Motorbikes	item	40.00	7		80.00	80.00	40.00		80.00	280.00
Bicycles	item	4.00	12		24.00				24.00	48.00
subtotal				0.00	604.00	359.10	100.00	0.00	604.00	1667.10
OPERATING										
Transport:										
4WD Pick-up LWB	1000km	6.00	135	90.00	180.00	180.00	180.00	180.00	180.00	810.00
Motorbikes	1000km	1.50	200	15.00	60.00	75.00	75.00	75.00	75.00	300.00
Bicycle allowances	bike yr	0.72	27	2.16	4.32	4.32	4.32	4.32	4.32	19.44
Laboratory:										
Materials, chemicals	ann'l sum	15.00	4		15.00	15.00	15.00	15.00	15.00	60.00
Maintenance:										
Furniture & equipment @ 5%	ann'l sum	12.20	3			12.20	12.20	12.20	12.20	36.60
Office stationery etc.:	ann'l sum	10.00	4			10.00	10.00	10.00	10.00	40.00
Training Courses:										
for chiefs, groups, etc.	personday	0.15	420			9.00	18.00	18.00	18.00	63.00
Staff - per diems:										
Veterinary Officer (1)	item	0.20	270	6.00	12.00	12.00	12.00	12.00	12.00	54.00
Livestock Officer (1)	item	0.15	270	4.50	9.00	9.00	9.00	9.00	9.00	40.50
Animal Health Assistnts (10)	item	0.15	1350	22.50	45.00	45.00	45.00	45.00	45.00	202.50
Driver (1)	item	0.15	270	4.50	9.00	9.00	9.00	9.00	9.00	40.50
Staff - salaries:										
Veterinary Officer (1)										
Livestock Officer (1)										
Animal Health Assistnts (10)										
Driver (1)										
Clerical Officer										
subtotal				0.00	144.66	353.32	389.52	389.52	389.52	1666.54
TOTAL DIVISIONAL VETERINARY OFFICER				0.00	748.66	712.42	489.52	389.52	993.52	3333.64

* Wooden bench 4m, cupboards below, sink, tiled splash-back, 3 stools.

(cont...)

TABLE 4.2.6: LIVESTOCK DEVELOPMENT BUDGET -
MUTOMO DIVISION (cont...)

	Unit	'000Ksh Unit cost	No.	1989/90	PY1 1990/91	PY2 1991/92	PY3 1992/93	PY4 1993/94	PY5 1994/95	TOTAL
DIVISIONAL LIVESTOCK EXTENSION OFFICER										
CAPITAL										
Office:										
Furniture	set	25.00	1		25.00					25.00
Pin board	m ²	0.01	6		0.06					0.06
Survey Equipment:	set	5.00	1		5.00					5.00
Transport:										
4WD Pick-up LWB	item	500.00	1			500.00				500.00
Motorbikes (DLED, AAPD, ARD)	item	40.00	5		80.00	40.00			80.00	200.00
Bicycles (TRAs, TAs)	item	4.00	16		32.00				32.00	64.00
subtotal				0.00	142.06	540.00	0.00	0.00	112.00	794.06
OPERATING										
Transport:										
4WD Pick-up LWB	1000km	6.00	120			180.00	180.00	180.00	180.00	720.00
Motorbikes	1000km	1.50	130		15.00	45.00	45.00	45.00	45.00	195.00
Bicycle allowances	bike yr	0.72	36		2.88	5.76	5.76	5.76	5.76	25.92
Office:										
Stationery etc.	ann'l sum	10.00	4			10.00	10.00	10.00	10.00	40.00
Maintenance of furniture and equipment	ann'l sum	2.00	4			2.00	2.00	2.00	2.00	8.00
Training courses:										
For chiefs and groups etc.	personday	0.15	420			9.00	18.00	18.00	18.00	63.00
Staff - per diems:										
DLED	item	0.15	270		4.50	9.00	9.00	9.00	9.00	40.50
AAPD	item	0.15	270		4.50	9.00	9.00	9.00	9.00	40.50
ARD	item	0.15	270		4.50	9.00	9.00	9.00	9.00	40.50
TRAs and TAs (8)	item	0.15	1080		18.00	36.00	36.00	36.00	36.00	162.00
Driver (1)	item	0.15	240			9.00	9.00	9.00	9.00	36.00
Staff - salaries:										
DLED										
AAPD										
ARD										
TRAs and TAs (8)										
Driver (1)										
subtotal				0.00	49.38	323.76	332.76	332.76	332.76	1371.42
TOTAL DIVISIONAL LEO				0.00	191.44	863.76	332.76	332.76	444.76	2165.48
TOTAL MUTOMO DIVISION				0.00	940.10	1576.18	822.28	722.28	1438.28	5499.12



TABLE 5.1: FORESTRY BUDGET - GRAND TOTAL

	1989/90	PY1 1990/91	PY2 1991/92	PY3 1992/93	PY4 1993/94	PY5 1994/95	TOTAL
KITUI HQ	0.00	1306.50	1002.00	1202.00	602.00	1752.00	5864.50
CENTRAL DIVISION	0.00	259.01	245.10	225.10	233.36	265.10	1227.67
KYUSO DIVISION	0.00	167.10	45.20	37.20	37.20	77.20	363.90
MWINGI DIVISION	0.00	363.16	243.26	223.26	231.52	263.26	1324.46
MUTITO DIVISION	0.00	167.40	62.82	46.82	46.82	86.82	410.68
MUTOMO DIVISION	0.00	61.00	56.16	44.16	44.16	84.16	289.64
TOTAL	0.00	2324.17	1654.54	1778.54	1195.06	2528.54	9480.85

TABLE 5.1.1: FORESTRY BUDGET - DISTRICT FOREST DEPARTMENT

	Unit	'000Ksh Unit cost	No.	1989/90	PY1 1990/91	PY2 1991/92	PY3 1992/93	PY4 1993/94	PY5 1994/95	TOTAL
CAPITAL										
Transport:										
4WD Pick-up LWB (DFD & DFED)	item	500.00	3		500.00	500.00			500.00	1500.00
Tractor	item	650.00	3		650.00		650.00		650.00	1950.00
	subtotal			0.00	1150.00	500.00	650.00	0.00	1150.00	3450.00
OPERATING										
Transport:										
4WD Pick-up LWB	1000km	6.00	255		90.00	360.00	360.00	360.00	360.00	1530.00
Tractor	500hrs	50.00	14		50.00	100.00	150.00	200.00	200.00	700.00
Staff - per diems:										
DFD	item	0.20	270		6.00	12.00	12.00	12.00	12.00	54.00
Driver	item	0.15	270		4.50	9.00	9.00	9.00	9.00	40.50
DFED	item	0.20	270		6.00	12.00	12.00	12.00	12.00	54.00
Driver	item	0.15	240			9.00	9.00	9.00	9.00	36.00
Staff - salaries:										
DFD										
DFED										
Drivers (2)										
Tractor Driver (1)										
	subtotal			0.00	156.50	502.00	552.00	602.00	602.00	2414.50
	TOTAL			0.00	1306.50	1002.00	1202.00	602.00	1752.00	5864.50

TABLE 5.1.2: FORESTRY BUDGET - CENTRAL DIVISION

	Unit	'000Ksh Unit cost	No.	1989/90	PY1 1990/91	PY2 1991/92	PY3 1992/93	PY4 1993/94	PY5 1994/95	TOTAL
DIVISIONAL FORESTRY EXTENSION OFFICER										
CAPITAL										
Transport:										
Motorbikes (DFEO)	item	40.00	2		40.00				40.00	80.00
Bicycles (TOs)	item	4.00	5			20.00				20.00
subtotal				0.00	40.00	20.00	0.00	0.00	40.00	100.00
OPERATING										
Transport:										
Motorbike (DFEO)	1000km	1.50	45		7.50	15.00	15.00	15.00	15.00	67.50
Bicycle allowances	bike year	0.72	20			3.60	3.60	3.60	3.60	14.40
Nurseries:										
Nzeeu nursery - tools	sum	8.26	2		8.26			8.26		16.52
- Poly tubes	item	0.0025	225000		62.50	125.00	125.00	125.00	125.00	562.50
- water tank & piping	item	60.00	1		60.00					60.00
- water pump & engine	item	40.00	1		40.00					40.00
Nursery materials for groups, schools, Central Division	ann'l sum	50.00	4.5		25.00	50.00	50.00	50.00	50.00	225.00
Staff - per diems:										
DFEO	item	0.15	270		4.50	9.00	9.00	9.00	9.00	40.50
SDAs (5)	item	0.15	675		11.25	22.50	22.50	22.50	22.50	101.25
Staff - salaries:										
DFEO										
TOs (5)										
Nursery attendants										
subtotal				0.00	219.01	225.10	225.10	233.36	225.10	1127.67
TOTAL				0.00	259.01	245.10	225.10	233.36	265.10	1227.67

TABLE 5.1.3: FORESTRY BUDGET - KYUSO DIVISION

	Unit	'000Ksh Unit cost	No.	1989/90	PY1 1990/91	PY2 1991/92	PY3 1992/93	PY4 1993/94	PY5 1994/95	TOTAL
DIVISIONAL FORESTRY EXTENSION OFFICER										
CAPITAL										
Buildings:										
Office and store	m ²	3.90	28		110.60					110.60
Transport:										
Motorbikes (DFEO)	item	40.00	2		40.00				40.00	80.00
Bicycles (TOs)	item	4.00	2			8.00				8.00
subtotal				0.00	150.60	8.00	0.00	0.00	40.00	198.60
OPERATING										
Buildings maintenance:										
2.5% of capital costs p.a.	ann'l sum	2.76	4			2.76	2.76	2.76	2.76	11.04
Transport:										
Motorbike (DFEO)	1000km	1.50	45		7.50	15.00	15.00	15.00	15.00	67.50
Bicycle allowances	bike year	0.72	8			1.44	1.44	1.44	1.44	5.76
Staff - per diems:										
DFEO	item	0.15	270		4.50	9.00	9.00	9.00	9.00	40.50
TOs (2)	item	0.15	270		4.50	9.00	9.00	9.00	9.00	40.50
Staff - salaries:										
DFEO										
TOs (2)										
subtotal				0.00	16.50	37.20	37.20	37.20	37.20	165.30
TOTAL				0.00	167.10	45.20	37.20	37.20	77.20	363.90

TABLE S.1.4: FORESTRY BUDGET - MWINGI DIVISION

	Unit	'000Ksh Unit cost	No.	1989/90	PY1 1990/91	PY2 1991/92	PY3 1992/93	PY4 1993/94	PY5 1994/95	TOTAL
DIVISIONAL FORESTRY EXTENSION OFFICER										
CAPITAL										
Buildings:										
Offices and store	m ²	3.80	28		106.40					106.40
Transport:										
Motorbikes (DFED)	item	40.00	2		40.00				40.00	80.00
Bicycles (TOs)	item	4.00	5			20.00				20.00
subtotal				0.00	146.40	20.00	0.00	0.00	40.00	206.40
OPERATING										
Buildings maintenance:										
2.5% of capital cost p.a.	ann'l sum	2.66	4			2.66	2.66	2.66	2.66	10.64
Transport:										
Motorbike (DFED)	1000km	1.50	45		7.50	15.00	15.00	15.00	15.00	67.50
Bicycle allowances	bike year	0.72	20			3.60	3.60	3.60	3.60	14.40
Nurseries:										
Nzeluni nursery - tools	sum	8.26	2		8.26			8.26		16.52
- Poly tubes	sum	0.0025	225000		62.50	125.00	125.00	125.00	125.00	562.50
- water tank & piping	sum	60	1		60					60.00
- water pump & engine	sum	40	1		40					40.00
Nursery materials for groups & schools in Mwingi Div.	ann'l sum	50	4.5		25.00	50.00	50.00	50.00	50.00	225.00
Staff - per diems:										
DFED	item	0.15	270		4.50	9.00	9.00	9.00	9.00	40.50
TOs (5)	item	0.15	540		9.00	18.00	18.00	18.00	18.00	81.00
Staff - salaries:										
DFED										
TOs (5)										
subtotal				0.00	216.76	223.26	223.26	231.52	223.26	1118.06
TOTAL				0.00	363.16	243.26	223.26	231.52	263.26	1324.46

TABLE 5.1.5: FORESTRY BUDGET - MUTITO DIVISION

	Unit	'000Ksh Unit cost	No.	1989/90	PY1 1990/91	PY2 1991/92	PY3 1992/93	PY4 1993/94	PY5 1994/95	TOTAL
DIVISIONAL FORESTRY EXTENSION OFFICER										
CAPITAL										
Buildings:										
Office and store	m ²	3.80	28		106.40					106.40
Transport:										
Motorbikes (DFEO)	item	40.00	2		40.00				40.00	80.00
Bicycles (TOs)	item	4.00	4			16.00				16.00
subtotal				0.00	146.40	16.00	0.00	0.00	40.00	202.40
OPERATING										
Building maintenance:										
2.5% of capital cost p.a.	ann'l sum	2.66	4			2.66	2.66	2.66	2.66	10.64
Transport:										
Motorbike (DFEO)	1000km	1.50	45		7.50	15.00	15.00	15.00	15.00	67.50
Bicycle allowances	bike yr	0.72	12			2.16	2.16	2.16	2.16	8.64
Staff - per diems:										
DFEO	item	0.15	270		4.50	9.00	9.00	9.00	9.00	40.50
TOs (4)	item	0.15	540		9.00	18.00	18.00	18.00	18.00	81.00
Staff salaries:										
DFEO										
TOs (4)										
subtotal				0.00	21.00	46.82	46.82	46.82	46.82	208.28
TOTAL				0.00	167.40	62.82	46.82	46.82	86.82	410.68

TABLE 5.1.6: FORESTRY BUDGET - MUTOMO DIVISION

	Unit	'000Ksh Unit cost	No.	1989/90	PY1 1990/91	PY2 1991/92	PY3 1992/93	PY4 1993/94	PY5 1994/95	TOTAL
DIVISIONAL FORESTRY EXTENSION OFFICER										
CAPITAL										
Transport:										
Motorbike	item	40.00	2		40.00				40.00	80.00
Bicycles (TOs)	item	4.00	3			12.00				12.00
	subtotal			0.00	40.00	12.00	0.00	0.00	40.00	92.00
OPERATING										
Transport:										
Motorbikes (DFEO)	1000km	1.50	45		7.50	15.00	15.00	15.00	15.00	67.50
Bicycle Allowances (TOs)	bike yr	0.72	12			2.16	2.16	2.16	2.16	8.64
Staff - per diems:										
DFEO	item	0.15	270		4.50	9.00	9.00	9.00	9.00	40.50
TOs (3)	item	0.15	540		9.00	18.00	18.00	18.00	18.00	81.00
Staff - salaries										
DFEO										
TOs (3)										
	subtotal			0.00	21.00	44.16	44.16	44.16	44.16	197.64
	TOTAL			0.00	61.00	56.16	44.16	44.16	84.16	289.64



TABLE 6.1: PROGRAMME COSTS GRAND TOTAL BY DIVISION

	1989/90	PY1 1990/91	PY2 1991/92	PY3 1992/93	PY4 1993/94	PY5 1994/95	TOTAL
KITUI DISTRICT HQ	15660.45	14991.40	11000.90	10316.00	10427.50	22742.50	85138.75
CENTRAL DIVISION	0.00	2191.46	10299.27	7499.00	7053.25	7487.79	34530.77
KYUSO DIVISION	0.00	9142.81	7092.28	5526.09	4910.48	10400.48	37072.14
MWINGI DIVISION	0.00	3949.30	8505.43	6619.73	6041.14	6567.06	31682.66
MUTITO DIVISION	0.00	9279.25	6345.20	5563.35	5173.35	10125.35	36486.50
MUTOMO DIVISION	6298.17	8201.47	5830.59	2717.64	2198.29	2970.29	28216.45
TOTAL	21958.62	47755.69	49073.67	38241.81	35804.01	60293.47	253127.27

TABLE 6.2: PROGRAMME COSTS GRAND TOTAL BY COMPONENT

	1989/90	PY1 1990/91	PY2 1991/92	PY3 1992/93	PY4 1993/94	PY5 1994/95	TOTAL
PROGRAMME MANAGEMENT UNIT	9292.05	2301.50	2301.50	2301.50	2301.50	5627.50	24125.55
WATER PROGRAMME COORDINATION UNIT	3587.25	2355.50	2255.50	1255.50	1255.50	3475.50	14184.75
SURVEY & MONITORING	1335.25	646.50	646.50	646.50	646.50	1650.50	5571.75
COMMUNITY EDUCATION & TRAINING	2596.75	4965.23	2304.55	2304.55	3004.55	3232.55	18408.18
SOIL CONSERVATION	3021.90	8340.70	7079.56	6050.01	5908.16	8720.16	39120.49
CROP DEVELOPMENT	375.42	1436.34	752.25	837.25	712.25	1532.25	5645.76
WATER CONSERVATION	1750.00	9027.18	12285.09	9718.49	9166.02	14000.00	55946.78
RURAL WATER SUPPLY	0.00	7021.46	8819.68	6115.00	5013.00	8154.00	35123.14
ANIMAL HEALTH	0.00	4667.14	6102.10	5017.09	4384.09	7275.09	27445.51
LIVESTOCK DEVELOPMENT	0.00	4669.98	4872.38	2217.38	2217.38	4097.38	18074.50
FORESTRY	0.00	2324.17	1654.54	1778.54	1195.06	2528.54	9480.85
TOTAL	21958.62	47755.70	49073.65	38241.81	35804.01	60293.47	253127.26