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Report No. 13692-KE

STAFF APPRAISAL REPORT

REPUBLIC OF KENYA

ARID LANDS RESOURCE MANAGEMENT PROJECT

NOVEMBER 14, 1995

Agriculture and Environment Operations Division
Eastern Africa Department
Africa Region

CURRENCY EQUIVALENTS
(As of April, 1995)

Currency Unit	=	Kenya Shilling (Kshs.)
US$1.00	=	Kshs. 45.0
SDR1.00	=	US$ 1.49299

WEIGHTS AND MEASURES
Metric System

ABBREVIATIONS

AL	Arid Lands
ALRMP	Arid Lands Resource Management Project
ASAL	Arid and Semi-Arid Lands
CAG	Controller and Auditor General
CD	Community Development
DRSRS	Department of Resource Surveys and Remote Sensing
DC	District Commissioner
DCF	Drought Contingency Fund
DCP	District Contingency Plan
DDC	District Development Committee
DFS	District Focus Strategy
DMC	Drought Management Coordinator
DMO	Drought Monitoring Officer
DMP	Drought Management Project
DMS	Drought Management Secretariat
DPC	District Program Coordinator
DRR	Department of Relief and Rehabilitation
DRRC	District Relief and Rehabilitation Committee
DSG	District Steering Group
DSU	District Support Unit
DWO	District Works Office
ECR	Emergency Cereal Reserve
EDRP	Emergency Drought Recovery Project
EWS	Early Warning System
FFW	Food For Work
GIS	Geographic Information System
IDA	International Development Association
IMF	International Monetary Fund
LMD	Livestock Marketing Division
MLRRWD	Ministry of Land Reclamation, Regional and Water Development
MOALDM	Ministry of Agriculture, Livestock Development and Marketing
MOPW	Ministry of Public Works
NCPB	National Cereal and Produce Board
NEAP	National Environmental Action Plan
NGO	Non-Governmental Organization
NPC	National Program Coordinator
NRRCC	National Relief and Rehabilitation Coordination Committee
NSU	National Support Unit
OP	Office of the President
PFP	Policy Framework Paper
PID	Public Information Document
PIDP	Pastoralists Integrated Development Project
PIP	Project Implementation Plan
PLA	Participatory Learning for Action
PS	Permanent Secretary
SOE	Statement of Expenditure
TO	Training Officer
WFP	World Food Program

Government Fiscal Year: July 1-June 30

REPUBLIC OF KENYA

ARID LANDS RESOURCE MANAGEMENT PROJECT

Credit and Project Summary

Borrower:	Republic of Kenya
Implementing Agencies:	Line Ministries and Non-Governmental Agencies, under the coordination of the Department of Relief and Rehabilitation (Office of the President) and in collaboration with local communities
Beneficiaries:	Arid Lands Populations, Government and Non-Governmental Agencies
Poverty:	Program of Targeted Interventions. The three mutually reinforcing project components aim to reduce the poverty of ALs populations through benefits such as increase in on- and off-farm income generation capacity, reduction in drought inflicted losses, provision of improved basic services, and enhanced market linkages.
Amount:	SDR 14.8 million (US$22.0 million equivalent)
Terms:	Standard with 40 years maturity
Commitment Charge:	0.50% on undisbursed credit balances, beginning 60 days after signing, less any waiver.
Financing Plan:	See Para. 3.10
Net Present Value:	US$ 10.5 million. However, this amount does not include the substantial non-quantifiable benefits expected to be generated by the project
ERR:	16.9%
Map :	IBRD 26479
Project ID No.:	KE-PA-1331

REPUBLIC OF KENYA

ARID LANDS RESOURCE MANAGEMENT PROJECT

STAFF APPRAISAL REPORT

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TEXT TABLES

ANNEXES

MAP

REPUBLIC OF KENYA

ARID LANDS RESOURCE MANAGEMENT PROJECT

STAFF APPRAISAL REPORT

1. INTRODUCTION

1.1 The predominantly pastoralist populations in the eight arid districts of Kenya are counted amongst the poorest and the most disadvantaged sections of society. Social welfare indicators show that in terms of access to communications, public health, nutrition and education services they receive a low fraction of services than the level available to the rest of the Kenyan population. Although the Arid Lands (ALs) are well-endowed with livestock resources, in the absence of reliable marketing outlets the full benefit of this resource accrues neither to the pastoralists nor to the consumers in the rest of the country.

1.2 Existing constraints on socio-economic development in these districts are quite forbidding: the physical environment is fragile and easily degraded; water resources are poor and variable; drought is a recurring feature decimating up to 50 percent or more of the livestock in each severe occurrence; the road network is inadequate and poorly maintained; and levels of illiteracy are high as are the child mortality rates. Experience has shown that traditional nomadic pastoralist communities like many other communities do not always adequately respond to the top-down development process; while a few formal and community-based institutions have limited capacities to combat the prevailing constraints.

1.3 Neither effective conservation of the natural resource base nor the development potential of these areas can be realized unless these constraints are addressed. Further, the development process should accommodate the shifts in priorities from development to survival in times of drought and vice-versa when normalcy returns. The proposed project addresses these constraints by focusing on drought management and mitigation, further integration of the AL population into the mainstream of the country's economy and the promotion of community-driven small-scale initiatives to address their development priorities.

2. BACKGROUND

A. MACRO ECONOMIC ENVIRONMENT

2.1 Kenya is a low-income country with a per capita income of $260 in 1994 (at current prices and exchange rates). About 75 percent of the country's land area is classified as arid or semi-arid. The economy is heavily dependent on agriculture, and in the arid lands, which comprise 60 percent of the land area of the country, livestock is the main economic activity of the largely pastoralist population.

2.2 Between 1991 and 1993, Kenya's macroeconomic performance was poor. In April 1992 the Government agreed with the International Monetary Fund (IMF) on a program of actions necessary to re-establish a sound macroeconomic framework which included deficit reduction, monetary restraint and liberalization of the foreign exchange regime. Until mid-1993 the implementation of the actions required was unsatisfactory: though fiscal targets were basically met, monetary targets were significantly exceeded and the liberalization of the foreign exchange regime proved to be unsustainable.

2.3 However, since mid-1993 there has been a significant improvement in macroeconomic management: the monetary policy was tightened considerably; and the official and market interest rates were unified. These improvements allowed the Government to negotiate a three year Policy Framework Paper (PFP) with the Bank and the Fund supported by a one-year Enhanced Structural Adjustment Facility (ESAF) arrangement with the IMF. The Government's performance under the reform program was generally positive, but with slippages in some areas. The fiscal deficit was in line with overall targets, but weak expenditure control necessitated expenditure and revenue adjustments to keep the deficit within agreed ceilings. On the structural side, virtually all exchange controls were abolished, the exchange rate was floated, price controls lifted and the maize market liberalized ahead of schedule. On the other hand, civil service reform got off to a slow start and parastatal reform lagged significantly. The economy responded positively to these measures, with the exchange rate appreciating, reserve levels increasing, inflation declining, and a restoration of positive real growth estimated at 3 percent in 1994. The Government successfully completed the 1994 ESAF arrangement and has been discussing a new Policy Framework Paper (covering the period 1995 to 1997) with the Bank and the Fund. The proposed framework will seek to sustain fiscal adjustment and accelerate structural reforms, notably in the parastatal area.

B. SECTOR BACKGROUND

2.4 Agriculture is the single largest sector of the Kenyan economy, accounting for about one-quarter of GDP and 70 percent of employment. It makes an indirect contribution of another 30 percent of GDP through the manufacturing and service sectors. Also two-thirds of the industrial output in the country is agro-industry based. Historically, the performance of the agricultural sector in Kenya has been better than the average for sub-Saharan Africa. Growth rate was 6.2 percent in 1965 through 1973, it was 4.6 percent in 1974-80 and declined to 2.5 percent in the period between 1981 and 1987. The situation has worsened since 1988. The agricultural growth was 1.6 percent in the period 1988-92; and it was negative in 1992 and 1993. This downturn in agricultural growth resulted largely from poor rainfall, and the slow implementation of structural reforms.

2.5 The physical challenges to increasing agricultural growth are formidable. There is very little high potential agricultural land left in the country which is not already being cropped or grazed, leaving intensification of land use as the only available option. The fragile drier areas of the country are experiencing the adverse environmental consequences of rapid population increases and the use of inappropriate technologies. Sedentarization of these lands which reduces the available land for dry season grazing has caused deepening poverty among the mainly pastoralist people of the ALs. The impact of such sedentarization is to further reduce the dry season grazing areas available to the livestock in times of drought.

2.6 Kenya's agriculture has the potential to grow at around 4 percent per annum provided the policy and institutional inadequacies are minimized. The reform agenda should be governed by the principle of clearly defining a policy environment based on developing competitive markets for agricultural commodities. The livestock sector can play an important role in meeting Kenya's overall growth objectives. Livestock is the primary economic activity in the arid lands and is an important activity in the remaining areas of the country. Beef provides about 65 percent of meat production in the country and small stock and camels, provide the remainder. Small stock and camels predominate in the arid lands, providing the major source of cash income to that area besides being the most important element of food of the AL populations. Livestock marketing and prices were decontrolled in 1987 but the ALs have not been able to benefit from the improved market conditions primarily because of poor infrastructural linkages with the main consuming centers.

2.7 Kenya has also initiated activities to deal with the pressing environmental issues. The country is faced with the stark reality that there is a growing gap between the rapidly growing population and a fragile natural resource base which is shrinking through degradation and overuse. A National Environmental Action Plan (NEAP), which *inter alia*, addresses the environmental impact of poverty, agricultural intensification, exploitation of water resources, management of biological resources and bio-diversity, energy and transport initiatives and plans, industry, mining and urbanization is now being implemented. The NEAP also addresses a number of issues facing the pastoralists in the ALs. These include, pressures placed on fragile natural resources because of sedentarization, the loss of important dry season grazing areas because of inappropriate agricultural development and settlement, the breakdown of customary controls over the use of common property resources, and constraints in the use of traditional stock routes.

C. THE AREA AND PEOPLE

2.8 The ALs cover over 60 percent of Kenya's total land area. The total population of the eight AL districts of Turkana, Marsabit, Mandera, Wajir, Samburu, Isiolo, Garissa, Tana River and the arid divisions of Baringo numbers about one million people, i.e. about 4.6 percent of the total Kenyan population. The ALs fall mainly within Kenya's agro-ecological zones VI and VII and have the following physical characteristics. Zone VI which accounts for 22 percent of Kenya's land area has a rainfall to evapotranspiration ratio between 15-20 percent and is classified as arid lands. Zone VII, which accounts for 41 percent of Kenya's land area has a rainfall to evapotranspiration ratio of less than 15 percent and is classified as very arid. Zone VI areas receive between 300-500 mm rainfall annually and zone VII between 200-300 mm. The soils in ALs are highly variable, generally of light and medium texture and are shallow. In general they are subject to compaction and capping and are susceptible to erosion. Surface water resources are scarce and highly variable. These regions have a low capability of supporting vegetation.

2.9 Pastoralism is the predominant occupation in the ALs. Pastoral communities in these districts belong to closely-knit tribal groups which have been rival herdsmen for ages. The major tribal groups are Turkanas in Turkana district; Samburus and Turkanas in Samburu district; Borans in Isiolo district; Borans, Gabra and Rendille in Marsabit; and Somalis of six main clans in Garissa, Mandera and Wajir districts. The people are predominantly semi-nomadic or nomadic pastoralists, though some sedentarization has started to occur. The ability of pastoral communities to survive through periods of drought has been highly dependent on their capacity to spread their risks, to move on to new areas of grazing as resources are depleted, and to take advantage of highly diverse dry land environments (riverine woodlands, hilltop forests, dispersed watering points, and so on). Extensive seasonal movements in response to scarcity or abundance of resources have featured prominently as part of pastoral survival strategies.

2.10 The ability of the AL populations to continue their pastoral way of life has come under increasing pressure in the last two decades, as access to the dry-season grazing areas has been lost to agriculture and settled ranching in the neighboring semi-arid lands. There are increasing trends of pastoralists sedentarizing around water points in the ALs as well. Consequently, the overall carrying capacity of the ALs has been reduced, a feature which has been exacerbated by tribal conflicts. The growing inability of these lands to sustain their human and livestock population is highlighted during recurrent droughts which decimate up to 50 percent or more of the livestock population in each severe occurrence. Pastoralists are increasingly migrating to the nearest towns during droughts in search of water and relief food. These population centers are ill-equipped to serve as drought mitigation centers or to support post-drought recovery.

2.11 Almost the entire population in the ALs can be classified as below the poverty line. For example, the ALs have fewer than 2.2 doctors and 15 nurses per 100,000 population compared with the national average of 15 and 25 respectively; about 43 percent of the primary school-age children in the ALs enroll in schools compared with the national average of 95 percent; literacy in the AL districts is estimated at below 20 percent, compared with the national average of 69 percent, and infant mortality is almost twice the national average. Further, the trends in infant and child mortality rates show little signs of improvement; education and literacy figures also show little improvement over the years. School dropout rates are high: one survey in Turkana showed that less than 10 percent of those enrolled in Standard 1 stayed in school until Standard 8. In terms of infrastructure the ALs are poorly served by roads and have limited access to sources of energy. The ALs have 40 km of roads per 1000 sq. km, while the average for other areas is almost 200 km; the AL populations consume less than one-hundredth of the average per capita electrical power consumption.

2.12 The ALs contribution to the national economy is substantially below its potential. Situated farthest from the principal Government and commercial centers in the north and east of the country in a region of poor infrastructure, the AL populations are isolated from the social and economic mainstream of the country. Consequently, their access to markets for livestock products, the main economic assets of these populations, is poor. This situation has been further aggravated by social conflicts, which have rendered the traditional stockroutes unreliable. Thus a population of around one million people with very little linkages with the rest of the economy, faces a deteriorating natural resource base, declining food security and deepening poverty. That situation is, nevertheless, reversible. The area has considerable untapped potential arising from its rich endowment in livestock: the eight arid districts contain nearly 20 percent of country's cattle, 30 percent of sheep, nearly 50 percent of goats and donkeys and almost the entire camel population.

D. POLICY ENVIRONMENT

2.13 The Government has had a well-articulated Arid and Semi-Arid Land (ASAL) policy since 1979 when an official document[1] set out the ASAL policy framework for the 1980's. The main objectives were stated as resource conservation, exploitation of productive potential, development of human resources and integration of the ASAL into the national economy. These policy objectives have been upheld and elaborated in subsequent policy documents, mainly the 1989-93 National Development Plan and a revised ASAL policy document issued in 1992[2]. This document places substantial emphasis on drought contingency planning in order to strengthen the coping mechanisms of local communities. Guidelines for policy implementation emphasize that projects and programs will be undertaken within the District Focus Strategy; and communities and local institutions will be involved in design, preparation and implementation of the projects.

2.14 Three major concerns, however, are not fully reflected in either Government policies or program initiatives. First, the Government has not yet enunciated a national policy on drought management for the ALs. The current policy outline does not fully address the issues faced by the pastoralist populations in these areas. The Government formulated a "drought contingency action plan" and a "food security action plan" under the Bank-financed Second Agricultural Sector Adjustment Operation (ASAO II, Cr. 2204-KE), but these drafts were neither adopted nor operationalized. Similarly, several recommendations on drought management made in the Kenya Food and Nutrition Policy Report (Report No. 8351-KE) have not been acted upon. The drought management efforts in the past have been mostly limited to the securing of food and other relief supplies from donors and their distribution to drought-affected populations. Second, there is a need to evolve specific policy initiatives for addressing issues concerning the deteriorating natural resource base in the ALs. There is a need for educating and mobilizing communities to prevent natural resource degradation. The pastoralist communities in the ALs are not adequately protected by tenurial and grazing rights. Some interventions such as the installation of large boreholes as permanent water points are known to have caused harm to the environment. Third, the Government is implementing The Land Adjudication Act (Cap 284) in Samburu, Isiolo and Marsabit districts under which common land is adjudicated and titles given to individuals. Though the process is very slow and limited to certain areas, the impact of this land redistribution on the pastoral communities needs to be studied. In addition, a policy framework needs to be in place for appropriate program initiatives to be developed (para 3.8).

2.15 Furthermore, most of the laws relevant to the development of ALs have been in effect since colonial days. Since the development policy in Kenya has changed fundamentally between the colonial times and the present, there is every probability that such laws are not consistent with the current policy. There is therefore a need for the Government to carry out a thorough review of all laws and regulations pertaining to ALs and to assess whether such laws are adequate in implementing Government policy and protecting the rights of the pastoralists. Such a review should also cover the enforcement mechanism of the laws in question (para 3.8).

1/ "The Arid and Semi-Arid Lands of Kenya - A framework for Implementation, Planning and Evaluation

2/ "Development Policy for the Arid and Semi-Arid Lands"

E. INSTITUTIONAL SETTING

2.16 The Ministry of Land Reclamation, Regional and Water Development (MLRRWD) and the Office of the President (OP) have the main responsibilities for policy and programs in ASALs. MLRRWD handles the policy development for ASALs; OP is in-charge of drought policy and the coordination of programs concerning drought management, relief and rehabilitation. It is also in charge of district, regional and national administration which are in charge of carrying out Government programs. Recently the Government has strengthened institutional capacity for drought and relief operations by establishing a separate Department of Relief and Rehabilitation (DRR) in the OP headed by a Permanent Secretary. The only Bank-funded project in the ALs, the Emergency Drought Recovery Project (EDRP - CR. 2460-KE) is housed in DRR. The Drought Recovery Programme is integrated into the institutional structure of the Office of the President. In the field, the program is coordinated by district program coordinators reporting to the District Commissioner (DC).

2.17 The Government of Kenya has adopted the District Focus Strategy (DFS) for implementing rural development initiatives. The DFS is intended to decentralize management responsibilities (including planning and monitoring) to the district, which is the smallest management unit within the Kenyan institutional structure containing key technical and financial mechanisms to plan and implement development activities. However, the implementation experience of several projects such as the IDA-funded Baringo sub-project of the Rural Services Design Project (Cr. 1974-KE), IFAD-financed Kwale-Kilifi District Development Project, and the Coast ASAL Development Project, shows that generally the ministries did not adequately delegate functional authority to the districts commensurate with their role envisaged under the DFS.

F. PAST AND ONGOING PROGRAMS IN THE AREA

2.18 A number of multilateral and bilateral projects have been introduced in the ASALs in the last two decades. With the exception of a few, these have largely focused on the relatively better off semi-arid lands. The only major investment effort supported by IDA in the arid lands is the EDRP which is being implemented in five arid districts, namely Mandera, Marsabit, Turkana, Wajir, and Tana River. Details of these projects are summarized in Annex 2 along with constraints faced in implementation.

G. LESSONS LEARNED

2.19 Both the successes and failures of the current and past development interventions in ALs, described in Annex 2, have lessons for the proposed project. The first lesson is that in these predominantly pastoralist communities, characterized by strong tribal and clan structures, sustainable development would not be possible unless the objectives addressed by the project are articulated by the community. Community ownership of the project is essential for sustainability. This will occur only if the community has an effective say in decision making. The second lesson is that project interventions should be simple enough that communities can manage them. The technologies used should be low-cost, i.e., affordable, to ensure sustainability. The third lesson is that the program should expand only as the absorptive capacities of the districts and the communities improve. The fourth lesson is that building capacities of the communities, participating NGOs and the Government's institutional structures should receive high priority for the development interventions to succeed. Human resource development should be regarded as a key input for the community development interventions. Further, in the arid lands, often susceptible to droughts and famine, the priorities of a community can oscillate

between development and survival; the project objectives should take into account this requirement and implementation should be dynamic and flexible enough to accommodate these changes.

2.20 The project should be executed within the framework of the Government's District Focus Strategy. Centralized planning and management models applied to projects in high potential areas have little chance of succeeding in these far-flung areas with poor capacities and communications. Programs in the ALs where funds from donors (UNDP, bilateral) flow directly to the project implementers in the field have performed well. The Bank/IDA funds however are channeled through the Government budgetary and accounting process. The lesson is that an arrangement would need to be established within these processes which is effective in securing the required incremental funds in the annual budgets in order to adapt the delivery of government services to a community based model, followed by a mechanism for planning at the community and district level and subsequent flow of funds to the implementing agencies. The time span of the project should be sufficiently long to establish durable relationships between implementers and communities by building an adapted model of delivery of services to these nomadic communities.

H. PROJECT PREPARATION

2.21 The lessons learned have been applied during project preparation, in project design and the proposed implementation arrangements. Initial project preparation was undertaken by a Government inter-ministerial planning team. At appraisal, all the target districts were visited and several planning workshops held to involve field implementers in the design of the project. With regard to implementation procedures, the workshops examined the applicability of the proposed procedures in the context of existing implementation capacities in the target districts. In addition to the participants in the workshops, field agencies, some local NGOs and bilateral donor-funded initiatives in these areas were also consulted.

2.22 Attempts were also made to involve potential beneficiaries in the final project preparation exercises. The initial guidelines for community participation were developed by undertaking community-oriented planning exercises with pastoralist communities on location. Community participation has thus been fostered through following a bottom-up approach and beneficiary involvement in project design. The experience of the Drought Monitoring System under the Netherlands-supported Drought Management Project was pilot tested in a training workshop in one of the target districts and the results incorporated in the design of the drought management component. In the mid-term review of the EDRP, several beneficiary participation initiatives have been included and strengthened which would evolve into the Arid Land Resource Management Project (ALRMP) programs. Finally the project design allows for a phased approach, which would permit project implementation in two stages: launching and slow build-up of activities in stage one, followed by full deployment of activities in all the districts in stage two, incorporating the lessons learned during a comprehensive mid-term review. This would match implementation to the capacities of implementers, and afford opportunities for applying mid-course corrections.

I. RATIONALE FOR BANK INVOLVEMENT

2.23 The project is consistent with the Bank's Country, Sector and Environmental strategies, and supports the **Country Assistance Strategy (CAS),** discussed by the Board in April 1994; it is also consistent with the current 1995 CAS. The focus of the Bank's Country Assistance Strategy is

poverty reduction through accelerated growth and employment generation. This strategy emphasizes macroeconomic stability, improved public sector efficiency and development of an export-oriented private sector, as well as strengthening the basis for equitable and sustainable development by addressing longer-term human resource issues and arresting the deterioration of Kenya's fragile environment. The CAS seeks to advance such objectives through the country dialogue, and by supporting efforts to alleviate population pressures and develop the ASALs, as part of the country assistance program. ALRMP's components and implementation strategy are thus in accordance with the CAS; the project specifically supports the CAS objective of strengthening the basis for equitable and environmentally sustainable economic development. With its focus on providing basic social services and environmental protection, the proposed ALRMP is a central feature of IDA's "core" lending program. The proposed ALRMP is a **Program of Targeted Interventions,** aimed at assisting the pastoralists in the arid districts, who are counted among the poorest of Kenya's population. It seeks to reduce the chronic poverty and enhance food security in these districts, at the same time strengthening and supporting local community-driven initiatives to better manage dry woodlands, critical grazing reserves and other fragile environments in these arid areas. The project design draws from the findings and recommendations of the recently finalized **Kenya Poverty Assessment** report, prepared by IDA in close consultation with the Government and with the support of several donors. The proposed project incorporates substantial beneficiary participation, and seeks to build capacity within local communities to take advantage of development opportunities and assigns an active collaborative role to the NGOs and other local social organizations/bodies. By emphasizing district-based initiatives, it supports decentralized planning and implementation. The proposed ALRMP is also a logical follow-up to the ongoing EDRP which has successfully initiated various environmentally sustainable drought management and mitigation activities in the ALs. These activities would be expanded and strengthened under the proposed project. Project implementation strategy and components have been designed in accordance with the Government's stated policies on ASAL development, and proposed project initiatives would be underpinned by the ongoing implementation of the **National Environment Action Plan (NEAP).**

3. THE PROJECT

A. PROJECT OBJECTIVES

3.1 The objectives of the Project are to strengthen and support community driven initiatives to: (a) reduce the widespread poverty and enhance food security in the arid districts of Turkana, Marsabit, Mandera, Wajir, Garissa, Tana River, Isiolo, Samburu, and the arid divisions of Baringo District; and (b) conserve the natural resource base in the arid lands through: (i) improving crop and livestock resilience to drought; (ii) increasing economic linkages with the rest of the economy; and (iii) improving basic health services, water supply and other social services.

B. PROJECT DESCRIPTION

3.2 **Summary Description**: The project would have three components:

(a) **Drought Management**: This component would institutionalize at the national and district levels a structure to effectively manage all the phases of drought. These include preparedness (drought monitoring), mitigation (drought contingency planning and rapid reaction) and recovery (continued drought relief activities). The project will build on the successful model for drought monitoring piloted under the previous project;

(b) **Marketing and Infrastructure**: This component would address the bottlenecks that impede livestock market linkages between the ALs and the rest of the national economy; and,

Community Development (CD): In order to become fully responsive to the communities' priority needs and demands, this component would be instrumental in assisting line ministries and collaborating agencies to adapt their organization and delivery systems to the specific conditions of the ALs.

3.3 **Detailed Project Description**: An overview of each of the three project components is as follows:

3.4 **Drought Management (US$ 10.9 million including contingencies):** This component will:

(a) Establish at the national and district level policy and operational responsibilities for drought management in Kenya. As a first step, the project will implement a **Drought Monitoring System** which has been tested successfully under EDRP. The Department for Relief and Rehabilitation will monitor through this system a representative sample of the entire arid land population on a monthly basis. The objective of the monitoring system is to detect specific drought related risks and to warn decision makers at both the district and the national level as early as possible so that immediate and targeted actions can be taken by the relevant line ministries to mitigate these risks. As part of policy development, national and district level

manuals and contingency plans would be developed to enhance strategic planning for the management of drought and famine

(b) Establish: (i) a **Drought Contingency Fund** for immediate drought interventions to finance the respective line ministries' specific emergency activities - incremental to their routine delivery of services - to protect communities' livelihoods and to mitigate the negative impact of risks at an early stage. An example is an emergency immunization campaign; (ii) an **Emergency Cereal Reserve** to maintain small stocks at the district level to be used for emergency food relief and food for work interventions to see through the initial period of drought; and (iii) there is also a need to continue **drought recovery activities** (especially around the urban centers) for people who have been made destitute by the 1993 drought. The specific support that should be provided to these communities will be identified by the communities themselves (with the assistance of a team of technicians of the respective line departments) through Participatory Learning for Action (PLA) exercises, resulting in community work plans.

(c) The project would finance other **drought preparedness and mitigation interventions** such as the establishment of dry season and drought grazing reserves and strategic water supplies. Communities would plan and participate in the implementation of these mitigation interventions. To facilitate the flow of goods and services, the project will also assist in the maintenance of road infrastructure through the Ministry of Public Works, with a view to establishing labor intensive road maintenance activities which can be used as food for work initiatives during periods of drought, initially as a pilot activity.

3.5 Marketing and Infrastructure (US$ 3.4 million): Under this component a community based approach will be used to determine actions which can be taken to create an improved marketing environment. These actions may include: (a) rehabilitation of stock routes, water points and other infrastructure facilities; (b) development of new and rehabilitation of existing market-related infrastructure, including animal holding grounds, animal marketing centers and slaughter houses; (c) improvement and strengthening of the Livestock Marketing Information System; and (d) development of user-related initiatives in marketing of animals. The marketing of other products such as hides and skins or gum arabic could also be included. Training and capacity building in relation to the management and operation of community facilities, the formation of herders associations would be an integral part of this component.

3.6 Community Development (US$ 5.9 million): This component is designed to achieve the fundamental objective of increasing the communities' capacities to protect and develop their livelihoods by dealing with the drought cycles in an effective way. The CD Component will be implemented following a phased or pilot approach in four arid districts over a four year period initially. Provided the findings at mid-term are positive, CD would be continued for the full project term of six years and its coverage will be extended to the remaining districts. The project will be instrumental in assisting each of the line ministries involved to improve and adapt their mode of intervention and organization to the specific conditions in the ALs so as to become responsive to the communities' specific needs and demands. Participatory Learning for Action (PLA) is the major tool to confirm the assessment of what the communities consider to be their priorities and to take into account socio economic, environmental and other differences between various areas

in order to tailor and adapt the line ministries' service delivery system in the entire district. PLA teams (two per district), will be constituted to carry out this exercise in selected communities (see annex 5). Practical proposals have been elaborated by each of the line ministries during project preparation (see annex 6). The line ministries will be expected to maintain or if necessary increase their funding levels to successfully adapt their service delivery to the conditions of the arid lands and to manage the drought cycle. During project implementation, each of the district line departments will continue to improve and refine its organization on the basis of local conditions and field experience. The District Steering Group (DSG) will identify which local NGOs and other local organizations can be involved as implementers and trainers. The following is a summary of delivery systems related to services already demanded by communities:

(a) **Animal Health and Livestock Production**. The Ministry of Agriculture, Livestock Development and Marketing (MOALDM) will focus on the support of Community Animal Health Workers (CAWHs, about 100 per district) who will (a) sell basic animal drugs in their community, (b) act as the first line animal health care, and (c) serve as "contact pastoralists" for the dissemination of technical messages related to the improvement of the herders' capacity to manage their livestock. These messages will relate to issues including disease prevention, vaccination, and husbandry practices (such as control of parasites). The CAWHs will have the possibility every month to meet with the front line staff of the departments of veterinary services and livestock production for consultation and training.

(b) **Crop Production** Support to crop production will be provided by the existing front line extension staff (maximum 40 per district) from MOALDM. Due to the particular circumstances - agriculture in ALs is generally being practiced in small, very well defined "pockets" which can vary in size - the ratio of front line extension staff per farm families should not exceed one per two hundred. The front line staff will have regular meetings with farmers to disseminate improved know how, and will benefit from monthly training and supervision carried out respectively by the district based subject matter specialists and the district agricultural officer.

(c) **Water** With regard to rural water supply, the focus of the Ministry of Land Reclamation, Regional and Water Development (MLRRWD) will be on improving community water supply systems and strengthening the community water users associations' capacity to manage and maintain new and existing water points. At the district level, a team of trainers will train members of the users associations with regard to management skills, operational maintenance, book keeping, formulation of bylaws, environmental impact, etc. In addition, the users associations will identify Community Water Workers - pump attendants, pipe fitters, line patrollers, mechanics and electricians - to assure the maintenance of the installation. A maintenance unit will be on call at the district level to react to demands from the respective users associations to intervene for repairs surpassing the CWWs' capacity.

(d) **Health** The Ministry of Health's (MOH) Primary Health Care Program is designed to assure: (a) maximum mother and child welfare through the training of Traditional Birth Attendants (TBA, 2 to 5 per community); (b) treatment of minor ailments, preventive and educational services through Community Health Workers (CHWs, 15 to 20 for a population of about 10,000 people), and; (c) treatment of ailments and Maternal and Child Health/Family Planning services through professional outreach teams (one per district). This strategy makes it

possible to reach nomadic communities as well as settlements without any health facility. Support to TBAs and CHWs is provided by division based Nomadic Primary Health Care Teams.

(e) **Coordination** The District Project Coordinator's role is critical to the success of the implementation of this component: the line ministries can only successfully pursue the adaptations that should be made to their organization and delivery system if they have strong (and external) support to overcome the many difficulties en route. Although there are no hierarchical links between the Coordinator and the heads of departments of the line ministries at the district level, he/she will provide critical feed back regarding the efficiency of the respective line ministries' field operations, and whatever guidance and support needed to implement their program.

3.7 Training: Training constitutes one of the main activities under the program. Staff of each of the respective line ministries will participate in initial training courses to master the organizational changes and adaptations to the working methodology, and will benefit from continuous refresher courses to stay up to date with the latest relevant technology. This training is crucial to allow staff to provide, each in their field of expertise, the best quality of services possible to the community members. Given the importance of the Participatory Learning for Action for the identification and planning of support and services that should be provided by the line ministries, special attention will go to the training of staff in the methodology and techniques of PLA. During project preparation, each of the line ministries has outlined the broad framework for the respective training programs. In the course of implementation, these programs will be refined and further elaborated in practical training curricula and annual training programs. These training activities will include: (a) training of planners, policy-makers, field implementers, community leaders and other community members in implementation activities; (b) development of appropriate curricula to conduct "under the tree" training courses for community members; (c) training, including orientation courses, for middle- and senior-level civil servants on drought management, livestock marketing and community development programs; and, (d) acquisition of library books, manuals, teaching aids and other educational equipment where needed.

3.8 Studies: Under the project, studies will be carried out on the degradation of the natural resource base and developing a policy and legal framework on natural resource conservation. Mainly local consultants will be hired. Subjects for studies may include: (i) regulations and practices on grazing rights; (ii) creating institutional and non-formal conflict-resolution mechanisms, (iii) testing improved desert resource management technologies; (iv) implications of sedentarization of stock routes and emergency grazing reserves (v) implications of dry season grazing areas; (vi) regime of restriction of movement of cattle from the ALs to other parts of the country: (vii) market information systems for livestock; and (viii) ways to involve the private sector in the establishment of slaughter houses. In addition, a review of laws and regulations will be carried out pertaining to the development of ALs, including a study on the land tenure system and development of instruments to protect and enforce the tenurial rights of pastoralists in the ALs. The Government has agreed to enter into a contract with a consulting firm before Credit effectiveness to carry out these studies. The Government has furnished to IDA a Letter of

Sectoral Policy defining the Government's position on the issues raised in this paragraph and other policy and operational issues that would affect the implementation of this project (Annex 1).

C. PROJECT COSTS AND FINANCING

3.9 Estimated project costs are presented in Table 1. Project costs by year are given in Annex 7, and detailed project costs breakdowns are presented in the PIP. Physical contingencies of 5 percent have been added to selected project costs. Price contingencies corresponding to the Manufacturers Unit Value Index[3] have been applied to internationally sourced items, and the projected domestic inflation rate has been applied to locally sourced items. A constant purchasing parity exchange rate has been calculated to adjust local price contingencies to US dollars. All costs are net of duties and taxes.

Table 3.1: Project Cost Summary

	Local	Foreign	Total	Local	Foreign	Total	% Foreign Exchange	% Total Base Costs
	KShs. Millions			US Dollar Millions				
Drought Management	331.4	126.7	458.1	7.4	2.8	10.2	28	44
Infrastructure and Marketing	89.9	48.2	138.1	2.0	1.1	3.1	35	13
Community Development	197.5	52.0	249.5	4.4	1.1	5.5	21	24
Project Implementation Support	140.1	61.3	201 4	3.1	1.4	4.5	30	19
Total BASELINE COSTS	758.9	288.2	1047.1	16.9	6.4	23.3	28	100
Physical Contingencies	14.9	11.6	26.5	0.3	0.3	0.6	44	3
Price Contingencies	172.9	76.7	249.6	0.8	0.4	1.2	32	5
Total PROJ. COSTS	946.7	376.5	1323.2	18.0	7.1	25.1	28	108

3.10 An IDA credit of SDR14.8 million (US$22.0 million), or 88 percent of project cost, would support the project, while the Government of Kenya and beneficiaries would contribute US$3.1 million. Out of the total Government share of US$3.1 million, the communities will contribute US$1.1 million. Line ministries will also be expected to maintain and possibly increase their support to the arid districts to improve and adapt their delivery systems. Table 2 provides the details of the financing plan by project component.

[3]/ An average annual price increase of 2.2 percent from 1995 to 2003 for internationally sourced items, domestic inflation rate of 32 percent for 1994, 8 percent for 1995, 7.5 percent for 1996 and 5 percent thereafter.

Table 3.2: Financing Plan (US$ million)

Project Components	IDA	GOK & Beneficiaries	Total
Drought Management	9.9	1.0	10.9
Marketing and Infrastructure	3.1	0.3	3.4
Community Development	4.8	1.1	5.9
Project Implementation Support	4.2	0.7	4.9
TOTAL (US$ million)	22.0	3.1[4]	25.1

D. PROJECT PROCUREMENT ARRANGEMENTS

3.11 All procurement of goods, works and services would be in accordance with World Bank Procurement Guidelines. Bank's standard bidding documents for goods, works and consultants would be used. At negotiations agreement was reached on an initial procurement plan, including standard procurement processing time and schedules for standard bidding documents for critical contracts.

(a) **Civil Works** All contracts estimated to cost US$250,000 or more will be by ICB and below this value will be by LCB. Civil works in each project district would cover new office buildings (estimated cost US$250,000), spot improvement to roads (US$400,000) and miscellaneous works associated with livestock infrastructure and drought management (US$4.9 million). These works will be carried out district-wide over the project period on the basis of annual work plans prepared by each district. For these works foreign firms will not be interested and adequate competition exists among local contractors. Ordinary road repair works each estimated to cost not more than US$50,000 will be carried out by the District Works Offices (DWOs) using the acceptable force account method and employing local labor as far as possible. For carrying out livestock infrastructure works (water pans, boreholes, fencing, civil structures at holding grounds/market yards or along stock routes) and drought management works (infrastructure for drought mitigation centers and livestock grazing reserves) the DSU will engage an appropriate district agency (DWO, District Water Engineer) who will carry out these works following force account as described for road improvement works. The aggregate of works under force account will not be more than US$500,000.

(b) **Goods and Equipment** Procurement of goods under contracts estimated at US$100,000 equivalent or more will be done by ICB. For contracts less than US$100,000 equivalent LCB procedures will be adopted. In the first two years of the project vehicles, computers, survey equipment, radio equipment for the districts will be procured centrally by the National Support Unit (NSU) through ICB with each contract estimated to cost US$100,000 or more aggregating to US$2.5 million. Contracts below US$100,000 up to an aggregate of US$1.2 million will be procured by LCB by the districts in terms of requirements reflected in the annual work plans. Small contracts of US$20,000 equivalent or less will use local shopping procedures (a minimum of three quotations), with aggregate not to exceed US$200,000. Under ICB, domestic manufacturers of goods will be allowed a margin of preference of 15 percent or the existing rate of import duty, whichever is lower, over the CIF price of the

4/ Includes beneficiary contribution of US$1.1 million for CDP.

competing foreign bidders. Fuel, oil and lubricants covered by the O&M costs will be procured according to normal Government procedures, which are satisfactory.

(c) **Community Development** The project envisages about 200 microprojects in the four pilot districts in four years. In addition, the Marketing component also envisages small community projects. These microprojects will be implemented following procedures described below. A microproject would normally have a maximum project contribution of US$10,000 excluding a minimum of 30 percent community share. At negotiations assurance was received that beneficiary communities will provide a minimum of 30 percent of the microproject costs. The microprojects will be executed by the line ministry, or a non-Government agency contracted to carry-out the microproject as a Collaborating Agency. Procurement procedures for the microprojects would be normal GOK procedures acceptable to IDA. At negotiations the Government furnished a statement establishing that full authority for procurement of goods and services required for community microprojects is vested in the districts. These would include shopping procedures, local competitive bidding procedures as appropriate and/or direct contracting where the first two methods are not feasible. Each microproject contract will be supported by a technical proposal, basic financial analysis and budget approved by the District Steering Group, summarized in a sanction letter to be signed by the DPC. DSU would have the responsibility to supervise implementation and report progress to the DSG.

(d) **Technical Assistance and Training** The project would finance four major and several minor studies, meet the cost of consultants and fund training of staff and communities. Consultants will be hired following procedures set forth in the "Guidelines for the Use of Consultants by the World Bank as Executing Agency". All terms of reference for consultants, consultant contracts for firms above US$100,000 and for individuals above US$50,000 and training proposals will be subject to IDA prior review. All contracts, regardless of contract value, for consultants to be appointed under NSU, and DSUs, will be subject to prior review by IDA. Where applicable, consultant contracts would include a training component.

Table 3.3 Project Procurement (US$ million)

Item	Procurement Method				Total
	ICB	LCB	LS	Other	
Civil Works		5.1		0.5	5.6
		(4.6)		(0.4)	(5.0)
Vehicles and Equipment	2.5	1.2	0.2		3.9
	(2.5)	(1.2)	(0.2)		(3.9)
Training				0.7	0.7
				(0.7)	(0.7)
Consultancy				1.7	1.7
				(1.7)	(1.7)
Community Development				3.7	3.7
				(2.6)	(2.6)
Incremental Operating Costs				9.5	9.5
				(8.1)	(8.1)
TOTAL	2.5	6.3	0.2	16.1	25.1
	(2.5)	(5.8)	(0.2)	(13.5)	(22.0)

NOTE: Figures in parenthesis are estimated amounts to be financed under the IDA Credit

3.12 **Procurement Review** Table 3 shows procurement procedures to be adopted for the project. All bidding packages (for civil works and goods) estimated to cost US$100,000 or more would be subject to IDA prior review. Other contracts will be subject to post reviews in accordance with the provisions of Appendix 1 of the Bank's procurement Guidelines. The prior review process would cover about 35 percent of the works, 70 percent of goods and 80 percent of consultant services and training. Overall IDA prior review would cover about 57 percent of IDA-financed contracts. The level of IDA prior review is lower than the expected 80 percent because of the nature of the project, i.e., small community projects and decentralizing procurement to the districts. However, it would be compensated in several ways: (i) the annual financial audit will look at procurement matters; (ii) the post-two year evaluation of CD component will include comprehensive review of the procurement implementing process; and (iii) during IDA supervision, random reviews would be conducted of procurement packages, including field visits and reviews of documentation of microprojects and other procurement packages. A list of important contracts for works, goods and consultants and their procurement schedule relative to the implementation plan is provided in the PIP.

E. IDA CREDIT ALLOCATION AND DISBURSEMENTS

3.13 The Project Disbursement Plan is shown in Table 4. The fully implemented credit is expected to be disbursed over six years as shown in the disbursement schedule (Annex 8). The countrywide profile is six and a half years. The credit closing date is June 30, 2001.

Table 3.4: Disbursement Plan

Items	Amount (USD Million)	Disbursements % Financing
1. Civil Works	4.2	90%
2. Vehicles and Equipment	3.6	100% of foreign costs and 90% of local costs
3. Training and Consultants	2.2	100%
4. Community Development Fund	2.5	70%
5. Incremental Operating Costs		
a) Vehicle O&M	1.8	90%
b) All other O&M	5.9	90% for expenditures incurred before December 31, 1997, 80% for expenditures before December 31, 1999, 75% thereafter
6. Refund of PPF	0.2	Amounts due
7. Unallocated	1.6	
TOTAL	22.0	

3.14 **Disbursements** would be made against standard IDA documentation with the following exceptions, for which certified Statements of Expenditures (SOEs) would be used: (i) contracts less than US$100,000 equivalent; (ii) all local training; and (iii) operating costs. SOE thresholds for

consultants would be US$100,000 for firms and US$50,000 for individuals. SOEs would be certified by the Finance Officer in the NSU and the External Resources Division (ERD) of the Ministry of Finance, who would confirm that these are in agreement with the books of account. These would be subject to review by IDA supervision missions and interim and annual audits (para 4.9).

3.15 In order to facilitate the availability of funds for the project when needed, a **Special Account** will be established in a commercial bank and operated and maintained on terms satisfactory to IDA. An initial deposit of US$1 million will be deposited by IDA into the Special Account. The Special Account will be replenished on the basis of satisfactory documentary evidence, to be provided to IDA, of eligible payments made from the account for goods and services required for the project. No limit will be set on the size of the payments to be made from the Special Account other than that imposed by the balance remaining in the account.

3.16 **Flow of Funds to Districts** (a) The Government will continue for ALRMP the existing budgeting and funding arrangement established for the EDRP for transferring project funds to the districts for meeting the costs of district-based project activities. This arrangement comprises a single line budget under the OP, a single Authority to Incur Expenditure (AIE) issued in favor of the DPC in each project district, and especially enhanced district cash floats for each project district to fully meet the cash requirements of project expenditures. Funds would be allocated to line ministries and other collaborating agencies for activities at the district level based on the process of identification of community priorities, which will result in district annual work plans. At negotiations the Government confirmed that these arrangements will be applied to ALRMP and will not be altered without mutual agreement during project implementation. (b) The Government and IDA shall monitor and review the operation and effectiveness of the district payment mechanism from time to time. If the joint review concludes that the payment mechanism is not effective, the Government shall, not later than three months after being notified by IDA, introduce and implement such modification of the mechanism or of the applicable administrative and financial rules and procedures as may have been agreed upon with IDA.

3.17 Government has also given an assurance to make appropriate provisions of funds in the budget for year one of the project in terms of the agreed Annual Work Plan and to ensure that these funds are available for meeting project expenditures as soon as the project becomes effective.

4. PROJECT IMPLEMENTATION

A. ORGANIZATION AND MANAGEMENT

4.1 Building on the experience acquired under the previous EDRP, the ALRMP will (a) provide a system and policy for effective drought management; and (b) strengthen the communities' capacity to deal with further droughts. In order to assure long term sustainability, any action or intervention will be designed to be as cost effective as possible, to be community based, and to be implemented through the relevant line ministries and collaborating agencies. To be successful however, the line ministries will have to adapt their way of operating to the particularities of the Arid Lands. They will also need strong support and guidance from the National Support Unit and the District Coordinators in the Office of the President to meet this challenge. The Ministry of Agriculture, Livestock Development and Marketing, the Ministry of Land Reclamation, Regional and Water Development, and the Ministry of Health have continued, during project preparation, to refine a broad outline of the adaptations to be made to their respective ways of operating in order to become more effective in their response to the communities' needs and demands. During the respective district launching workshops, the staff of each line department will examine how the different frameworks for action can be best implemented, taking the local conditions into account. Yearly follow-up workshops will be organized in each district to critically examine and improve the effectiveness of the current way of operating.

4.2 It is ALRMP's role to assist the line ministries in the adaptation of their mode of operation to the specific requirements and conditions of the communities in the arid lands. To assure full ownership of the communities, in any activity involving physical inputs, the principal of joint action will be upheld with the communities contributing at least a minimum of 30% of the total cost. In addition to the support with regard to organizational and technical matters, ALRMP can provide equipment to the line ministries to implement their work plans. However, ALRMP is the donor of last resort: only after having exhausted the own regular budget and any other possible source of financing (including NGOs), the line ministries can request incremental financing from ALRMP. The line ministries will be expected to maintain or if necessary increase their funding levels to adapt their service delivery to meet the conditions of the arid lands and to manage the drought cycle.

4.3 The organization and management under ALRMP is as follows:

4.4 **National level**:

(a) The **National Relief and Rehabilitation Coordination Committee** (NRRCC) will define and enforce the drought management policy of the Government. It is constituted by the Permanent Secretaries of the MOALDM, MOH, MLRRWD, MOPW and MOE under the chairmanship of the Permanent Secretary for Relief

and Rehabilitation of the Office of the President. The NRRCC meets at least twice every year, or whenever the need may arise to provide the policy guidance to the program.

(b) The **Project Steering Committee** (PSC) will monitor the implementation of the program on a continuous basis and will be constituted by directors (or their senior aides) of the respective line ministries. The PSC will be chaired by the Director of Programs from the Office of the President. During the working sessions, the PSC members will verify to what extent each of the line ministries' work programs in the ALs is in line with the declared objectives. The PSC will carry out quarterly field supervision missions to supervise and encourage the line ministries' staff at the district level, and to propose any corrective action where and when needed. The National Project Coordinator is the secretary of the PSC.

(c) The **National Support Unit** (NSU) is responsible for (a) the coordination of the ALRMP; (b) the monthly publication of the national drought status report; (c) the support and supervision to the training initiatives at the district level; and (d) development and sustainance of drought contingency plans and response mechanisms. The NSU is headed by the National Project Coordinator, who reports to the Director of Programs in the Office of the President, and comprises a drought monitoring officer, a training officer, and a support unit (accounts officer, supplies officer, drivers, secretaries, and messenger). The professional staff in the NSU will spend most of their time in the field to assist the implementation of the program in the ALs districts. They will give guidance to the District Program Coordinators, and will support the respective line departments with the field implementation of their activities. In particular, the NSU members will assure the proper follow-up for the recommendations made by the PSC.

4.5 **District level:**

(a) The **District Steering Group (DSG)** will comprise the heads of departments of each of the line ministries concerned (MOALDM, MOH, MLRRWD, MOPW and MOE), the District Program Coordinator, as well as local NGOs and at least two community leaders. The DSG will be chaired by the District Commissioner. The Program Coordinator is in charge of the secretariat. The DSG is responsible for: (a) supervising the planning of activities in each of the line departments so that work programs fully respond to communities' needs and demands; (b) monitoring the effectiveness of implementation; (c) development of a district drought contigency plan; (d) reviewing the monthly district drought bulletin issued by the Department for Relief and Rehabilitation; and (e) decide on steps to be taken for appropriate response whithin the framework of the district drought contingency plan. The DSG will meet at least once per month.

(b) The **District Program Coordinator (DPC)** reports to the NPC in the Office of the President and at the district level to the District Commissioner. The DPC has

two major responsibilities: (a) to provide critical feed back regarding the efficiency of the respective line ministries' field operations, as well as guidance and support needed to plan and implement their program; and (b) the monthly publication of the drought bulletin. It is considered to be of crucial importance for the success of the program that the line ministries would have strong and continuous external support from the DPC. In each district, the DPC will be assisted by a support unit comprising a supplies assistant, an accounts assistant, and three support staff (driver, secretary, messenger). The DPC and the unit will be equipped with a 4x4 vehicle and two motorcycles.

(c) The **Drought Monitoring System** will, as mentioned above, be part of the responsibility of the DPC. In each district a Drought Monitoring Officer will be identified, to the extent possible among the existing staff of the line ministries. He/she will report to the DPC and be responsible for the supervision of data collection, the analysis of the data, and the publication of the drought bulletin. For purposes of data collection in the field, the program will train about 50 monitors per district. These monitors are part of the communities, and work on a temporary basis (one week per month). Since they collect data in the immediate vicinity of their locality, they do not need any particular means of transportation.

(d) The **Ministry of Agriculture, Livestock Development and Marketing** (MOALDM) will, with regard to animal health and livestock production, provide support to about 100 Community Animal Health Workers (CAHWs) per district. As mentioned above, these CAHWs will: (a) sell basic animal drugs in their community; (b) act as the first line animal health care, and; (c) serve as "contact pastoralists" for the dissemination of technical messages related to the improvement of the herders' capacity to manage their livestock. One front line staff (about ten per district, based at the divisional level) can provide support to about ten CAHWs. In general, the front line staff will be equipped with motorcycles. However, it still needs to be specified during project implementation which means of transportation would be most suitable in those cases where motorcycles are not a practical solution. The front line staff will receive quarterly visits from the District Veterinary Officer and the District Livestock Production Officer, and will participate in three monthly training sessions. During project implementation, two major issues still need to be clarified: how to organize effective linkages with research, and how to improve and support the organization of vaccination campaigns so as to increase coverage and to make them more efficient and cost effective.

(e) To improve support to crop production in the ALs, the MOALDM will improve the organization of the existing front line staff according to two scenarios: (a) the front line extension worker lives near the agricultural area (irrigation scheme or rain fed farming), providing support to the farmers within walking distance not needing any specific means of transportation; and (b) the front line staff (FLS) provide support to a number of farmers in more than one location, therefore needing a motorcycle to visit the farmers. All FLS will meet with farmers on a

fortnightly basis. The ratio of number of farm families per front line staff will vary from district to district. However, given the distances to be traveled between different areas where agriculture is being practiced, the ratio of FLS per farm families should not exceed one per 200. The actual number of existing FLS also varies considerably (depending on the importance of agriculture in the district) but never exceeds about 40. At least once per month, FLS will benefit from supervision. There will be one supervisor per five to eight FLS. At the district level, a team of SMS will be responsible for the training of FLS. Once per month, the District Agricultural Officer (DAO) will gather all FLS in a specific location for this purpose.

(f) **The Ministry of Land Reclamation, Regional and Water Development (MLRRWD)** will have in each district a team to install new water points. This team will comprise three types of units: a drilling unit for boreholes, a pump installation unit, and a dam construction unit. These units will be equipped with a lorry for transportation of materials. The support to communities' management and operation of the water units is assured through monthly visits from the divisional officers (about three per district). In most cases, these officers will be equipped with a motorcycle. In addition, a maintenance unit is on call at the district level to react to demands from the respective users associations to intervene for repairs surpassing the community water workers' capacity. This maintenance unit comprises an electrician, a plant mechanic, and a plumber and will be provided with a 4x4 vehicle equipped equipped with the necessary tools. Supervision is assured by the district training officer and the district water engineer. The district training officer will visit each of the divisional water officers at least once per month. These visits are also instrumental to upgrade the front line staffs' skills. The district water engineer visits each of the communities at least once every quarter to check on the efficiency of the services delivered by his staff.

(g) At the district level, the **Ministry of Health** will have a District Nomadic Primary Health Core Team of about four members. The core team is under the leadership of the district nomadic primary health care coordinator who is responsible for the supervision of field activities and the training of staff in the health centers and dispensaries. At the division level there is a health center which is headed by a clinical officer. The officer supervises, among other things, the divisional nomadic primary health care team constituted of the public health officer, and a community nurse. The members of this team are trained during a one week course as trainers of trainers (TOTs) and participate in continuing education courses about once every three months. They are responsible for the training and supervision of the Village Health Committee members, the Community Health Workers (CHWs), and the Traditional Birth Attendants (TBAs), and will, to achieve this, visit settlements without any health facilities once every month on a specified day. The team will be equipped with two motorcycles. To assure treatment of minor ailments in settlements and in nomadic communities, a district based team of five officers visit settlements without health facilities at a well defined time and place (so that nomadic people will know where and when they can meet with this team for

consultation). The team will have a van equipped to provide primary curative and preventive health care. In optimal conditions, the team can visit each settlement once every two months.

4.6 **Project Phasing** The Drought Management and Marketing and Infrastructure components of the project would be implemented over a six-year implementation period. The Community Development component would initially be implemented in only four districts over a four-year period. However, if the findings of the evaluation at mid-term are positive, decisions would be made to continue the component for the full project term of six years in these districts and to extend its coverage to the remaining districts. A sum of US$1.3 million has been included in the project costs for this purpose. Groundwork for project start-up will commence in the zero year (starting in early 1995) and will be mainly devoted to establishing both the institutional and organizational infrastructure as well as advance action for the procurement of vehicles and equipment. The demonstrated benefits accruing from project initiatives would encourage the conflict resolution process and form the basis for expanding project activities to the relatively insecure areas. It was agreed during negotiations that a comprehensive mid-term review would be carried out at the end of year three between September 30, 1998 and December 31, 1998, and lessons learned incorporated. A detailed list of topics to be covered at the mid-term review has been included in the PIP. Project activities in the zero year will be funded through a PPF and partly through the components of EDRP which have been aligned during its mid-term review to eventually dovetail into ALRMP.

B. CONSULTANCIES AND STUDIES

4.7 The project provides for about 48 person-months of consultancies for drought management and community development, for guiding and advising on preparation of the national and district drought manuals and contingency plans and the establishment of the drought monitoring system (para 3.4) and for advising on operational issues related to community development activities. The project will also finance studies in tenurial and grazing rights of pastoralists, resource management in ALs and on marketing.

C. PROJECT MONITORING AND EVALUATION

4.8 Baseline studies will be carried out under EDRP and under the project preparation facility, which will form the basis for project evaluation. Assurance was obtained at negotiations that the design and formats of the baseline studies will be finalized in consultation with IDA. The timeframe for conducting the surveys was agreed at negotiations. Monitorable indicators have been developed during appraisal and are included in the PIP. A list of key indicators finalized during negotiations is attached (Annex 10). During implementation, an annual review workshops will be held, rotationally in each district, as a sharing, best-practice learning event. All implementers in the field, including government ministries, NGO functionaries, representatives of participating communities, and staff of DSU/NSU will be the participants. The workshop will review implementation of the previous year, identify constraints and issues, select best practices and set goals and implementation methodology for the next year. An annual evaluation of the CD component will be carried out. The review at the end of year two will be comprehensive so that lessons are applied in the implementation of the

component in the remaining period. An impact evaluation of the project will be carried out at mid-term and in the terminal year of the project. The impact study will particularly focus on the benefits of improved market linkages, i.e., improved livestock take-off and farm gate prices, the reduction in drought inflicted losses, and increase in the off-farm income generation capacity. At negotiations Government assurance was obtained for conducting the impact evaluation study as proposed above. Agreement was also reached on the design and important details of the study.

D. AUDITING AND REPORTING REQUIREMENTS

4.9 The overall financial management, accounting and budgeting of the project will be the responsibility of NSU, which will co-ordinate all financial transactions including disbursement requests generated by DSUs. NSU and the districts would maintain accounts and records for project activities, including for SOEs and the Special Account, as relevant (paras. 3.13 and 3.14) in accordance with sound accounting practices satisfactory to IDA. Assurances were received during negotiations that the Government would (i) have the records and the accounts of the project, including those for the Special Account and SOEs, audited for each fiscal year by the Controller and Auditor General (CAG) or private auditors appointed by the CAG and acceptable to IDA; (ii) submit the audit reports to IDA within six months of the close of every fiscal year; (iii) ensure that the audit would comprise the auditor's report on the project accounts comprising balance sheet (to show fixed and current assets), operating expenditure statement and statement showing sources and application of funds, the Special Account and the SOEs. The audit report will also include a statement on the adequacy of the accounting system and internal controls. At negotiation the GOK provided assurances that (i) project audit reports will be furnished to IDA in formats generally and/or specifically agreed between GOK and IDA; and (ii) the project's financial management and accounting system will be in place and operating before effectiveness.

4.10 Semi-annual reports, in agreed formats included in the PIP, on the progress of project components would be prepared and submitted to IDA by the NSU. A mid-term review of the progress and impact of the project interventions will be undertaken by OP and IDA not later than September 30, 1998. To facilitate this review, the NSU will prepare a project mid-term status report and furnish to IDA at least three months before the scheduled date for the mid-term review. The review would form the basis for the Government/IDA to assess what corrective action may need to be taken and whether any reallocation between components is required. Six months before the project closing date, the Borrower will prepare and make available to IDA its own implementation evaluation report on the project's execution and initial costs and benefits, IDA's and the Government's performance of their respective obligations under the Credit Agreement, and the extent to which the purposes of the credit were achieved. The formats for the evaluation report have been described in the PIP .

E. SUPERVISION PLAN

4.11 The project would be supervised more intensively by GOK and IDA in the first two years to guide community-oriented implementation and cooperation between various development actors in an environment where process is as important as the achievement of basic objectives. IDA supervision would require experts in institutions and community

development, drought management and livestock marketing and procurement at least twice in each of the first two years and once annually in the remaining period. In addition, a disbursement specialist would join at least three missions in the first two years and later at the time of the mid-term review. A roads engineer will be engaged in a few missions to review the spot improvement program for repairing critical district roads. The procurement and disbursement specialists participating in the missions will also provide training and orientation to the field staff. The first three missions will particularly focus on recruitment and staffing of positions in the district and national project support units, training, establishment and smooth operation of cooperation procedures, successful contracting for critical goods and consultancies for studies, and intensive on-the ground review of the community microprojects and community participation in project implementation. Review of the Government's arrangements for the flow of funds would also receive serious attention, as would the adequacy of budgeting and timely fund availability to the districts for meeting project expenditures. A detailed supervision plan indicating approximate mission schedules, key activities to be reviewed, items of special focus, expected skills and estimated staff inputs is given in Annex 11.

5. PROJECT JUSTIFICATION, RISKS AND SUSTAINABILITY

A. JUSTIFICATION

5.1 **The over-arching objective of the project is to reduce widespread poverty and enhance food security in the Arid Lands** (about 75% of Kenya's land area is classified as arid or semi-arid, with the ALs comprising 60% of the total land area of Kenya). Almost the entire population of around 1 million people in the ALs are below the poverty line as defined in the recently finalized Poverty Assessment report (discussed in paras. 2.8-2.12). The predominantly pastoralist populations in the arid districts, are in fact counted among the poorest and the most disadvantaged sections of society in the country. Social welfare indicators show that in terms of access to communications, public health, nutrition and education services, they receive a fraction of the services available to the rest of the Kenyan population. The project specifically supports the core objective of reducing poverty and strengthening the basis for equitable and environmentally sustainable economic development as defined in the CAS. The project is targeted to reach a highly disadvantaged group of communities living under harsh economic and agro-ecological conditions, and seeks to improve the living conditions of AL populations through: (i) enhancing resilience to droughts; (ii) increasing incomes through strengthening linkages with the rest of the economy; (iii) addressing basic needs of the communities, and especially of women and children; and (iv) the conservation of the natural resource base of the ALs.

5.2 Rising population pressures in the semi -arid lands have also increased the pressure on the AL resource base (see paras. 2.9-2.10). Consequently the traditional coping mechanisms of the AL populations are no longer adequate to allow them to recover from droughts. As a result, their dependence on primarily donor financed relief programs has grown over the years and in some parts of the ALs it has become a way of life. This is clearly not sustainable. The main aim of the drought management component of the project would be to enhance the AL population's resilience to drought, and by formulating a detailed set of arrangements for drought warning, mitigation and recovery, aimed at reducing drought inflicted losses (see para. 3.4 & Annex 3), and reduce the need for repetitive emergency interventions. In particular, the devastating impact of the recurrent droughts will be contained through a comprehensive set of actions, such as, the institutionalization of the drought management mechanism at the national, district and local levels; strengthening of the national drought early warning system; improvement of stockroutes (holding grounds, water points, etc.) for emergency livestock evacuation; establishment and maintenance of drought grazing reserves; emergency veterinary campaigns; operation of drought related CFW/FFW projects; and, support for food aid activities. In addition, the project would strengthen and support local initiatives to better manage range lands, critical grazing reserves and other easily degradable environments in ALs and thereby help strengthen the traditional coping mechanisms of the AL communities as well (paras. 3.8; 5.14 and Annex 9). The project will also finance studies aimed at developing a policy and legal framework to address important concerns in areas such as, implications of diminishing dry season grazing regions; implications of increased sedentarization on stock routes and emergency grazing reserves; current regulations/practices on grazing rights and introduction of

appropriate reforms; and, testing desert resource management technologies e.g. sustainable water development, fodder development, grazing land management, pastoral income diversification.

5.3 The main economic asset of the ALs is livestock (Table 5.1). However, as a result of poor linkages with the rest of the economy (due mainly to inadequate infrastructure), the AL communities have been unable to realize the financial benefits from this important resource (para 2.12). The project aims to improve the linkages of the ALs with the rest of the economy. Specifically the project would help facilitate the further integration of these communities by providing marketing outlets for livestock and livestock products (para. 3.5; Annex 4). In operationalizing key stockroutes, the component will finance the rehabilitation of related infrastructure, such as, holding grounds, water points, marketing centers; the formation of user-groups for the identification of marketing obstacles and related solutions, as well as pertinent studies will also be supported under the project.

Table 5.1: AL Livestock Resources

	Population	Herd Value	
	('000)	Average ($ millions)	Drought period ($ millions)
goats & sheep	4500	99	22
donkeys	100	5	n.a.
camels	600	108	20
cattle	1400	196	29

5.4 The ALs have been a target of many development interventions as described in Annex 2. The main lesson learned from the successful initiatives is that, sustainable development would not have been possible without strong community involvement in decision making and implementation. This lesson has been the corner-stone in designing the CD component under the project. The CD component of the project would enable communities to plan and implement micro-projects that respond to their own priorities, building sustainability into the development initiatives (para. 3.6; Annex 5). These microprojects would help meet basic social needs, in particular of women and children, and also promote off/on-farm income generating activities. ALRMP's precursor, and the only World Bank project in the area -- EDRP, is having an impact in improving the management of livestock resources, animal health, drought, water resources and the environment/natural resource base, as well as, strengthening local capacities in the four arid districts where it is being implemented.

B. PROJECT IMPACT

5.5 **Poverty Reduction.** Designed to be implemented following a bottom-up, community-based, demand-driven development approach, ALRMP's preparation entailed joint visits, systematic client consultations, and "on-location" planning exercises with AL pastoralist communities. Hence, the project's participatory planning approach, the identification of priority actionable areas for ameliorating the quality of life of the AL communities and the direct delivery of funds into communities, are all targeted towards reducing poverty in the ALs. The

poverty reduction strategy under the project, is aimed at galvanizing broad-based economic growth in the region through improved management of the AL poor's most abundant resources - livestock and labor, in conjunction with the improved management of the natural resources of the ALs (para. 5.14). The Poverty Assessment report indicates that in 1992 the poverty line in rural areas stood at Ksh. 485 per adult equivalent unit (a.e.u) per month or about US $ 10 per a.e.u., per month. The project would significantly increase the income of the largely pastoralist population through: (i) reduction in mortality rates of the livestock resources, particularly, in periods of drought; (ii) improvements in animal health leading to more rapid herd growth (improved fertility, reduced mortality); (iii) increased volume of sales due to improvements in herd growth rates (ensuring larger surplus for the markets), as well as, higher off-take rates due to improved commercial linkages with the rest of the economy; and (iv) increases in farm-gate prices due to both the improvements in quality of livestock offered by the AL pastoralists, and the reduction in transportation and other transaction costs of middle-men/traders, a portion of which would be passed on to the farm-level. The other mutually reinforcing element of the project's poverty reduction strategy relates to the development of off-farm income generation activities, which while helping push up the standard of living in the area, would both reduce the dependence on /depletion of ALs' natural resources, and help stabilize incomes in the drought years.

5.6 **Drought Management**. The main benefit of the project's drought management activities would be the reduction of livestock losses due to the droughts which regularly devastate these areas. Livestock losses can be very severe. In the 1984 drought, approximately 33 percent of cattle, 25 percent of small ruminants (sheep/goats) and 13 percent of camels perished; in 1992 nearly 46 percent of cattle, 31 percent of sheep and 21 percent of camels were lost in the six severely affected arid districts. It is very modestly estimated that the project would help reduce livestock losses by about one-quarter of their present drought mortality rates (Table 5.2). The resultant benefits are estimated at about US$ 9 million (at current prices) in a severe drought and about US$ 6 million in a less severe drought. If however, the project results in a reduction of the drought mortality rates by one-third, the gross benefits would be equivalent to some US $ 12 million in a severe drought and US$ 8 million in a less severe drought. If on the basis of past experience it is assumed that a severe drought is experienced every 10 years and a less severe drought every five, then over a 20 year period potential benefits from improved drought management are expected to be considerable.

Table 5.2: Drought Mortality Rates

	Without Project Drought Mortality Rates (%)		With Project Drought Mortality Rates (%)	
	Severe	Less Severe	Severe	Less Severe
goats/sheep	28	12	21	9
camels	17	5	13	4
cattle	40	14	30	11

5.7 In addition, improved drought management would also lead to less deterioration of the general condition of the animals which should result in better prices when they are sold. Keeping more animals alive during a drought will have substantial nutritional benefits to the

population and reduce the need for costly food imports or aid and help minimize disruption of the pastoralist economy.

5.8 **Market Linkages, Animal Health & Farmgate Prices.** The project would also lead to improved market linkages. Over the last ten years, on average, the livestock offtake rates for the ALs have been as follows: 7 percent of the cattle, 8 percent of the goats/sheep and about 1.5 percent of the camels from the arid lands are marketed outside the region (Table 5.3). The project aims to increase the low average annual off-take rates of AL livestock units over time by strengthening the marketing links with the rest of the economy. A robust domestic/export market for livestock products exists in Kenya; hence, the additional output would be readily absorbed. While the considerable potential for improving the current AL offtake rates may well be realized (under ALRMP), such that the numbers of cattle marketed increases to 11 percent and small ruminants to 25 percent annually, for the purposes of assessing incremental project benefits, it is frugally estimated that at full development the project would increase annual sales of cattle and small ruminants by 20 percent each over current rates -- to about 8.4 and 10 percent , respectively, and that of camels by just 10 percent p.a. (to some 2 percent).

Table 5.3: Livestock Offtake Rates

	With-out Project Offtake Rates	With Project Offtake Rates
sheep/goats	8.0%	9.6%
camels	1.7%	1.9%
cattle	7.0%	8.4%

5.9 It is also envisaged that the improvements in the quality of the livestock units being sold (due to increased availability of water, fodder and animal health services), and reduction in transportation and other trading costs, would directly translate into improvements in farm-gate prices under the project (Table 5.4). Again, the premiums for quality and the general reduction in transaction costs is conservatively estimated to yield a nominal 10 percent improvement in prices, over their current levels. The farmgate prices have been calculated by averaging the prices prevailing in project districts over the last two years; the prices prevailing during the severe drought of year of 1991/92 were taken as the benchmark for the reduced price levels during droughts. Given the substantial drought mitigation/management efforts under the project, it is envisaged that the slaughter rates of cattle, particularly during the less severe droughts will be reduced, as the effective activation of the emergency relief apparatus would augment the staying power of the pastoralists and their herds. It is hence assumed that the prices during the less severe droughts will stabilize at around fifty percent of the normal farmgate price levels. Overall, the value of the incremental sales (at the improved prices) under the project (during a normal year) is hence estimated at some US$5 million annually (in current prices). Due to paucity of reliable data, no serious effort was made to evaluate the project benefits deriving from increased meat, milk, skin and wool production. Nevertheless, it should be noted that in addition to the meat, milk forms a large part of the pastoralist diet and provides an important proportion of the necessary calories and proteins. Much of the incremental milk produced would be consumed locally. In addition, the improved incomes of

the arid lands populations would have a multiplier effect through increased trade with the rest of the economy.

Table 5.4: Farmgate Prices (per animal)

	Without Project Farmgate prices/unit (Ksh)		With Project Farmgate prices/unit (Ksh)		
	Average Prices	Drought Prices	Average	Less severe drought	Severe Drought
Sheep/goats	990	315	1,080	540	360
Camels	8,100	1,800	8,910	4,455	1,980
Cattle	6,300	1,575	6,930	3,465	1,755

5.10 **Community Development** The CD component of the project would also lead to substantial monetary and non-monetary benefits to the beneficiaries. A key focus of CD component is to promote income-generating activities, particularly through support for off-farm microenterprises. This support would take the form of training, limited technical assistance, and seed capital. Although a precise assessment of the overall economic or financial costs and benefits arising from the component is not feasible, the project is designed to draw upon the least cost options for undertaking the proposed initiatives in the project area. It is anticipated that about 15 percent of the AL population will benefit from the support under the project for setting up on/off-farm microenterprises, which is envisaged to improve their gross incomes by a modest 10 percent; it is expected that at full development, some US$ 1.5 million (in current prices), will be added annually to the gross earnings of the AL population. An assessment (on the basis of the experiences under EDRP and other relevant development initiatives in the ALs), of the gross annual benefits accruing from representative models of selected (potential) microprojects with moderate investments in the areas of community educational facilities and water schemes, indicates that over a twenty year period, the total quantifiable benefits from these initiatives would significantly exceed the microproject investment costs. Assuming improved employment opportunities for only about 5 percent of the young adults receiving primary education (from a total of some 1500 students per year), either through the application of the "under the tree" nomadic education models or through the improvement of the more formal educational facilities, supported under the project (three educational facilities per district were assumed), on the basis of very conservative estimates (i.e., only a fifth of their income is attributed to their education), the total annual (incremental) benefit from the gainful employment of these students amounts to about US$ 12,000 (in current prices), starting in about PY11 (by PY20 the cumulative total incremental income will amount to an estimated US$ 115,000). While US$ 12,000 is not an impressive amount *per se*, this income represents a per capita incremental amount of about US$ 160 p.a. for the 5 percent earning it, and helps push their earning levels over the poverty line. Likewise, financial analysis relating to the provision of two borehole type water facilities for each of the project districts indicates that, at current prices the total incremental income generated per year, from the operation of these boreholes (for 300 days per year, at the charge of Ksh. 2 /livestock unit/day for some 16,500 heads of livestock), a total annual income of US$ 216,000 may be expected at full development.

5.11 In addition, the improved educational facilities and water resources will translate into enhancing the quality of life and increasing the productivity of the local communities, as well as

improving their income base/potential. Improvements in the general health of the local population and their livestock herds due to increased access to good quality drinking water would translate into direct economic benefits, and community water schemes would lead to increased food production in home gardens (evidence of this is visible under EDRP) and substantial savings in terms of labor by reducing the time it takes to fetch water or trekking animals several kms away to water points. The project is designed to draw upon the least cost options for undertaking the proposed initiatives in the project area. The representatives of the key technical line ministries in the District Steering Group will evaluate the soundness of the technological packages being adopted The locally based Collaborating Agencies as well as the AL communities themselves, would be closely involved in the selection of alternative approaches with regard to technological processes and resources to be employed in implementing various activities under the project. Furthermore, the lessons of experience and "best practices" that have evolved under the past and ongoing development interventions in the area, e.g., EDRP, the Kenya Livestock Development Project funded by the European Union and the UNDP supported Pastoralist Integrated Development Project (Annex 2), will be applied and replicated under ALRMP. The project would, wherever possible, seek to employ locally available cost effective and hitherto tested technology packages and resources, eliminating the need for costly imports or exogenous technologies involving high operating and maintenance costs. Both the design and the implementation strategy adopted for ALRMP are based on the tenets of low cost alternatives and project sustainability. All aspects of the project should lead to an overall decrease in dependence on food aid.

5.12 **Nutrition, Health & other Social Service Interventions.** On the basis of community preferences, microprojects to address education, nutrition, health and reproductive issues, will be undertaken. These micro-projects which would help meet basic social needs, in particular of women and children, through support for activities in the areas of curative care, communicable disease interventions, improved hygienic practices, safe motherhood, family planning, nutrition education, immunization programs, are envisaged to lead to substantial monetary and non-monetary benefits to the communities. The enhanced training of community health workers and nomadic teachers would also lead to better nutritional and health levels and increased literacy.

5.13 **Community Empowerment & Local Capacity Building.** The project seeks to foster genuine local ownership of the development process in Kenya through assigning a pivotal role to the AL communities in making development decisions. Not only did the AL communities play a crucial role in the design of the project, but they will continue to be heavily involved in its implementation. AL communities (assisted by line ministries, NGOs and local self help groups, as needed) will identify, plan, implement and participate the all development activities financed under the project. Participation orientation workshops, community development, and community members'/ leaders' training programs are an integral part of the project.

5.14 **Environmental Impact** The project is envisaged to have a beneficial environmental impact by seeking to contain the deterioration of the fragile ecosystem and reducing the incidence of desertification. The project will contribute significantly to improving the management of fragile environments in the ALs by strengthening the ability of the pastoral communities to plan and implement appropriate development initiatives, to control access to critical grazing reserves, and to encourage their rehabilitation. It will help formulate a set of

initiatives to protect the environment-friendly rights of the pastoral communities. It would also build a greater awareness of environmental management issues and enhance awareness of bio-diversity concerns, among the participating communities, the Government and collaborating agencies. In addition, improved management of the ALs would translate into direct economic gains for the local populations by way of increased fodder and fuelwood supplies in the medium term. The framework and guidelines for the proposed ALRMP are based on the NEAP which was completed with IDA assistance in June 1994. An independent environmental analysis/ review of this category B project was conducted by consultants appointed by the Government. The review has determined that no negative impacts are anticipated because the project is designed to use community-based, low-cost, sustainable resource management techniques. The review also makes a number of suggestions for best practices that would have a positive impact on the environment and makes recommendations for implementing these development initiatives, e.g., not to permit settlements in the drought grazing reserves, not to make populations affected by drought develop dependency on aid. The report is summarized in Annex 9.

5.15 **National Programs & Replicability.** ALRMP is part of a larger National Drought Management Programme, and after several years of relatively ineffectual donor coordination in the ASALs, the Arid Lands Resource Management Project is providing the bases for effective coordination between the Bank and other multi-lateral and bilateral donors (EU, Dutch, GTZ). Not only does ALRMP fit in with Kenya's national strategy for drought management, but it is also providing a model for delivery of services to some of the poorest communities in Kenya - through community empowerment and participatory development. In particular, it is providing a model for service delivery to communities in terms of animal health. The formation of user associations to manage livestock revolving funds and water user associations should be considered replicable models or pilots, and promise to fit into overall national strategies. The project is providing leadership in these remote districts for service delivery which is participatory and community based. The experiences from project implementation can be used to modify and improve national animal health programs, particularly with a view to improved delivery of services in other sparsely populated parts of Kenya.

C. ECONOMIC AND FINANCIAL ANALYSIS

5.16 The main quantifiable as well as non-monetizeable benefits accruing from the implementation of the various project components have been described at some length in paras. 5.5 through 5.15 , above. Since a number of project benefits elude quantification, a rigorous economic analysis for the project was not feasible. However, the basic cost/ benefit analysis undertaken indicates that, even with modest assumptions about the quantifiable project benefits, the potential returns from ALRMP will be fairly substantial (Annex 12). In view of the impact of the recent price reforms in Kenya, the key distortions in the foreign exchange rate, interest rates, wage rates and product prices have been removed. Thus, economic prices are expected to be very close to financial prices. A project life of 20 years is assumed for purposes of benefit-cost streams assessment. Taxes and duties were excluded from the economic analysis. Also, price contingencies were not reflected in project costs, since the project benefits were evaluated in constant terms, over the project life.

5.17 The analysis assumes that the main **benefits** resulting from the project would stem from: a reduction in livestock mortality rates; a modest price increment or premium for the improved quality livestock (along with the impact of reduced transportation/ marketing costs); and, increased annual average off-take rates due to improvements in market linkages. The main quantifiable benefit from the CD component is expected to result from an improvement in the incomes of about 15 percent of the AL populations who are expected to set up micro-enterprises with support from the project. Project investment and recurrent **costs** related to each of the three components, were netted out against the benefits streams. Project Support Unit costs were also included in the analysis. Following project completion, recurrent costs were assumed to continue at levels essential for sustaining an adequate flow of services related to the activities initiated under the project. A one time replacement/ rehabilitation expenditure related to drought management equipment/ infrastructure, and for the rehabilitation/ construction of roads and replacement of construction and repair equipment was also included in the analysis.

5.18 Based on the foregoing, an ERR of 16.9 percent is calculated for the project. Results from switching value analysis for an ERR of 10 percent which is the Opportunity Cost of Capital (OCC) for Kenya, demonstrate that a significant change in benefits or costs, i.e. a 34 percent drop in total (quantifiable) benefits, or a large increase of 51 percent in costs would be required in order to reduce the ERR to 10 percent. Sensitivity Analysis shows that if benefits fall or costs increase by 25 percent, the ERR would fall to 12 percent and 13.1 percent, respectively. Alternately, if benefits increase or costs fall by 25 percent, the ERR would rise to 21.3 percent and 22.6 percent, respectively. An enormous decline of 70 percent in total benefits would be essential in order for the ERR to drop to zero percent. Conversely, an exponential increase of 200 percent in total project costs would push the ERR to zero percent. If all quantifiable benefits envisaged to accrue from the drought mitigation/ management interventions under ALRMP are excluded from the total benefits stream, the project's ERR would decline to 10.4 percent; if instead, the benefits from the marketing and infrastructure improvements under the project are excluded, the ERR drops to 5.3 percent. The exclusion of the CD benefits reduces the ERR to 14.4 percent. No independent lag analysis of the project's benefits stream was undertaken, as the impact of droughts on the project's benefits stream was built into the basic economic analysis model.

Table 5.5: Sensitivity Analysis

	Economic Rate of Return
Baseline	16.9%
Benefits up 25%	21.3%
Costs down 25%	22.6%
Benefits down 25%	12.0%
Costs up 25%	13.1%
Benefits down 70%	0%
Costs up 200%	0%

D. RISKS

5.19 There are **three** main risks. **First**, due to the inadequacy of implementation capacity and lack of coordination at district and national levels, implementation through districts may not work effectively. This will have an impact on achieving project benefits. Delayed and/or inadequate implementation of the drought mitigation interventions will impact adversely on the immediate well being of AL communities during a drought and will make recovery more difficult. Poor implementation of the livestock marketing component will also reduce the financial benefits to the AL populations and delay and/or prevent the economic links with the rest of the economy being established. To mitigate this risk, the project aims to further adapt the institutional arrangements and capacity at the district level with the strong coordination role of the Office of the President which is currently in place under EDRP and generally functioning adequately. A related issue is that enhanced livestock marketing may be delayed due to social conflict. Efforts at conflict resolution are already being undertaken by district administrations. Furthermore, project activities would be first launched in the secure areas and non-governmental agencies currently involved in conflict resolution efforts would be involved in the process.

5.20 **Second**, the project would require a strong team effort to facilitate the participatory process; large geographical areas with poor means of communication would add to the risk. If the team effort is inadequate, the community development package in particular will be affected. However, the adaptation of government delivery systems to the arid lands conditions, the involvement of non-government agencies with a history of successful experience in the areas, a strong orientation and training program, and the proposed decentralized institutional arrangements would help minimize this risk. In addition, some of the proposed sub-components will follow successful patterns established in PIDP, EDRP and development initiatives supported by bilateral and non-governmental agencies.

5.21 **Third**, flow of funds has been the most intractable issue in Kenya and principally responsible for unsatisfactory project performance. This would be addressed by a combination of recent initiatives in several ongoing projects in Kenya such as providing the budget for the project under one vote of the coordinating ministry and the district funding mechanism currently in use under EDRP and the Second National Agricultural Extension Project (Credit 2199-KE).

E. SUSTAINABILITY

5.22 The project is sustainable from a fiscal perspective. The Government is expected to contribute around US$ 2.0 million of the project costs over the 6 year implementation period, which is feasible based on current budgetary allocations (the allocation for EDRP in 1995/96 was KShs. 540 million, equivalent to about US$ 12 million, and KShs. 630 million (US$ 14 million) in 1994/95). The Ministry of Finance has included ALRMP in the 1995/96 financial year budget through the provision of a PPF of KShs. 11.4 million or US$ 252,500. The design and implementation strategy adopted for ALRMP would lend sustainability to project investments. Drought management will become a long-term Government function and the drought management units will be integrated into the regular Government institutional structure. After the credit closes, the impact of drought management expenditures on the Government budget would be approximately US$330,000 annually. The O&M allocation for EDRP in 1995/96 was K. Shs 32.6 million (around US $ 700,000). Communities would also have an important role in operating drought early warning systems, as well as in mitigation and recovery efforts. Livestock routes, holding grounds and market yards will be maintained by the communities and local authorities with negligible demands on the Treasury. Under the Community Development component the project would provide a one-time capital support to the community selected micro-projects. These micro-projects will be operated and maintained by the communities without any further cost to the project or later on to the Government other than followup training. Sustainability, ensured by community responsibility and commitments to operate and maintain assets, would be fundamental to the design of microprojects and also a pre-condition for funding under the ALRMP.

6. AGREEMENTS AND RECOMMENDATION

A. AGREEMENTS AND ASSURANCES

6.1 During negotiations the following **assurances** were obtained:

(a) the National Drought Management Secretariat and the sub-units dealing with drought management in the eight District Support Units will be integrated into the regular Government institutional structure;

(b) the beneficiary communities will contribute at least 30 percent of the cost of the microproject undertaken;

(c) the District Works Offices will annually prepare a plan of critical spot improvements to the roads and execute it after DSG approval, and the project funding for these critical spot improvements will be supplemental allocation to the normal budget allocation provided by MOPW to the districts for road repair and maintenance;

(d) a training plan will be prepared annually before the start of each fiscal year and furnished to IDA for approval;

(e) (i) an evaluation of the impact of project interventions will be conducted at mid-term and in the final year in terms of the design of the evaluation study finalized at negotiations; (ii) an annual review of the CD component will be conducted and the review at the end of the year two will be comprehensive; and (iii) the design and format of the baseline survey will be finalized in consultation with IDA;

(f) Government would (i) have the records and accounts of the project, including those for the Special Accounts and SOEs audited each fiscal year by the Controller and Auditor General or private auditors appointed by him; and (ii) submit to IDA the audit reports comprising Project Accounts, Special Account and SOEs in the agreed format within six months of the close of the fiscal year. The audit report will include a statement on the adequacy of the accounting system and internal controls;

(g) (i) studies for the review of laws and regulations relating to the tenurial and grazing rights of pastoralists in arid lands will be completed in the second year of the project; and (ii) a plan of action will be drawn up in consultation with IDA to implement the recommendations made under these studies in an agreed time-frame;

(h) to conduct jointly with IDA a mid-term review of the project between September 30, 1998 and December 31, 1998; and

(i) the Government and IDA shall monitor and review the operation and effectiveness of the district payment mechanism from time to time. If the joint review concludes that the payment mechanism is not effective, the Government shall, not later than three months after being notified by IDA, introduce and implement such modification of the mechanism or of the applicable administrative and financial rules and procedures as may have been agreed upon with IDA.

6.2 The following were the conditions of **Board presentation**:

(a) the receipt of a Letter of Sectoral Policy; and

(b) the receipt of overdue audits for FY93 (Project Accounts, SOE and Special Account) for the EDRP (Cr. 2460-KE) as well as audited statements of sources and application of funds for funds utilized under EDRP from the Rural Services Design (Cr. 1974-KE), Second National Extension (Cr. 2199-KE) and Animal Health Services (CR. 1758-KE) projects.

6.3 The following are the conditions of **Credit effectiveness**. The Government will:

(a) enter into a contract, satisfactory to IDA, with a firm to carry out studies for review of laws and regulations pertaining to tenurial and grazing rights of pastoral communities;

(b) furnish to IDA evidence that the following project officers, with qualifications satisfactory to IDA, have been recruited and started work: National Project Coordinator, Drought Management Coordinator (Head of DMS), Procurement Officer, Finance Officer, and at least four District Project Coordinators;

(c) make appropriate provision of funds in the budget for year one of the project in terms of the agreed Annual Work Plan and ensure that these funds are available for meeting project expenditures as soon as the project becomes effective;

(d) furnish to IDA evidence that the project's financial management and accounting system is in place and operating;

(e) furnish Project Implementation Plan (PIP), satisfactory to IDA;

(f) furnish terms of service including pay scales of the project staff; and

(g) furnish overdue audits for FY94 (Project Accounts, SOE and Special Account) for EDRP (Cr. 2460-KE) as well as audited statements of sources and application of funds for funds utilized under EDRP from the Rural Services Design (Cr. 1974-KE), Second National Extension (Cr. 2199-KE) and Animal Health Services (Cr. 1758-KE) Projects.

B. RECOMMENDATION

6.4 Based on the above conditions and agreements, the proposed project would be suitable for an IDA Credit of SDR14.8 million (US$22.0 million equivalent) to the Republic of Kenya, on standard IDA terms with 40 years maturity.

Telegrams: "FINANCE", Nairobi
Telephone: Nairobi 338111
When replying please quote

MINISTRY OF FINANCE

Office of the Minister
P.O Box 30007,
Nairobi,
Kenya.

Ref. No. EA/FA 62/335/01
and date

4th May 95

#950
5/17/95

Mr. Edward V. Jaycox
Vice President, Africa Region
World Bank
1818H Street, N.W.
Washington D.C. 20433

Dear Mr Jaycox,

Arid Lands Resource Management Project
Letter of Sectoral Policy

Background

The Kenyan economy is predominantly dependent on agriculture, which employs about 80 percent of the labour force and contributes more than a quarter of GDP. However, very little high potential agricultural land is left in the country which is not already being cropped or grazed, and about three-quarters of the country's land area is classified as arid and semi-arid. Heavy population pressures in high potential areas and the scarcity of good agricultural land has resulted in the spillover of substantial numbers of people from high potential areas to these marginal lands. This has had two impacts. Firstly, it has placed heavy pressures on ecosystems which have historically supported extensive pastoral populations, and secondly, the low productivity and potential of these areas has often resulted in the further impoverishment of new residents. Consequently, these fragile drier areas of the country are experiencing the adverse environmental technologies and sedentarization. Not surprisingly, almost the entire population of the Arid Lands of about one million, are included amongst the poorest and most disadvantaged sections of society. Thus, although the Arid Lands are well-endowed with livestock resources, in the absence of reliable marketing outlets, the full benefit of this resource accrues neither to the pastoralists nor to the consumers in the rest of the country.

The Government has had a well-articulated Arid and Semi-arid Lands (ASAL) policy since 1979 when an official document set out the ASAL policy framework for the 1980s. The main objectives

were stated as resource conservation, exploitation of productive (primarily livestock) potential, development of human resources and integration of the ASAL into the national economy. Substantial emphasis is also placed on drought contingency planning in order to strengthen the coping mechanisms of local communities. The Government, in Sessional paper No. 1 of 1994 on Recovery and Sustainable Development, has committed itself to the management of droughts, sustainable resource base management, and improvement of marketing and infrastructure. It also recognizes an obligation to provide the opportunity to all Kenyans to participate fully in the economic development of the country.

The Arid lands Resource Management Project (ALRMP) has been formulated as a joint and participatory exercise between the Government and the Bank to address the key constraints to the development of the Arid Lands. Throughout this exercise there has been a large measure of mutual agreement on various aspects of the project including approach, design, components and implementation arrangements. The long-term development objective of ALRMP is to reduce widespread poverty and enhance food security in the Arid Lands by strengthening and developing both the capacity of the local population, and the economic opportunities available to them; supporting efforts aimed at increasing incomes via linkages with the rest of the economy; and creating alternative employment/income-generating opportunities for the local population. A short-term objective of the project is to improve the living conditions of Arid Land populations through enhancing resilience to droughts, and addressing basic community needs such as drinking water and basic health services for both humans and livestock. A related and equally important objective is the conservation of the natural resource base. The proposed project must be considered to be part of a longer term programme of investment in arid land development, which contributes to achieving broader objectives of poverty alleviation, sustainable land use, and resource conservation.

This longer-term perspective has indeed been central in the design of some of the main strategies and actions which will be implemented by the Government (under the aegis of ALRMP and under other future relevant programmes/development initiatives), to address the key constraints and issues hindering the development of the Arid Lands, viz., degradation of the natural resource base, increasing frequency and intensity of droughts, poor marketing facilities and inadequate infrastructure leading to lack of integration of the area with the national economy, inadequate level of social services available to Arid Land populations, and lack of an adequate policy framework with regard to pastoralists' rights e.g. land ownership and grazing rights.

Strategies and Actions

Environmental and Natural Resources Conservation and Management: The arid areas of Kenya are frequently affected by drought, which, given the loss of dry-season grazing land and inadequate drought mitigation activities over the last forty years, has had adverse environmental impact. The National Environment Action Plan (NEAP), completed in June 1994, along with the Environmental Action Plan for the ASAL, will provide the basic framework and guidelines for environmental and natural resources conservation and management with regard to the arid lands. Both of these planning exercises took the view that, policy and legal issues pertaining to the arid lands were inadequately addressed, and that initiatives in this regard needed to be supported by further careful analysis of the factors which continue to contribute to the deterioration of the natural resource base. Under the proposed project a series of in-depth studies of these factors will be designed and carried out by 1997. The findings and recommendations of these studies, if accepted by Government, will guide policy and legislative formulation in a way which more fully aligns development programmes with sustainable natural resource management objectives. The project will support a range of other appropriate actions, by working with pastoralists to identify common resource management objectives and strategies, which will bring about improvements in the management of community resources and fragile environments through measures such as, limiting access to critical grazing reserves and their rehabilitation; reinforcing traditional production systems to manage resources; encouraging development of both livestock and alternative (non-livestock based) income generating activities to increase offtake of local output; and local capacity building measures, to promote mobility thereby reducing the dependence and pressure on Arid Land resources. These measures will reduce degradation of the natural resource base, and possibly reverse it. . .ALRMP would thus strengthen and support initiatives to better manage these fragile lands, during droughts or normal periods. The proposed project will foster local participation through the design and implementation of community-driven initiatives to better manage rangelands, critical grazing reserves and other fragile environments, thereby improving the longer term viability of pastoral communities. This will also help generate a greater awareness of environmental management issues among the participating communities, the collaborating Governmental and Non-Governmental Agencies.

Effective Drought Management: The increasing frequency and severity of droughts are adversely affecting the economic and social welfare of the pastoral population in the arid regions. The Government has initiated the development of an integrated national

policy on drought management for the Arid Lands. A good start has already been made in this regard, recently, the Government has strengthened the institutional capacity for drought and relief operations by establishing a Department of Relief and Rehabilitation (DRR) in the Office of the President. The ALRMP will further bolster Government efforts in this direction, by building upon the activities initiated under the IDA-supported Emergency Drought Recovery Project (EDRP). The Government will develop and finalize the National Drought Management Policy by the end of Project Year 2, i.e. 1996/97, and will establish an institutional structure at the national and local levels to effectively manage all phases of drought, i.e., drought preparedness, mitigation and recovery. Other drought management activities will include, the development and implementation of Drought Contingency Plans (by 1997) and the completion and adoption of Drought Contingency manuals (by 1998); and establishment and operation of an Early Warning System. A Drought Contingency Fund will also be established, and an Emergency Cereal Reserve will be set up with the assistance of World Food Programme and other donors, prior to the project's Mid Term Review in 1998. The strengthening and improvement of customary dry season and drought grazing reserves, an annual programme of critical spot improvements to keep the main district access roads serviceable and the strengthening of selected population centers as Drought mitigation Centers, will also be undertaken. Thus, the Government is seeking to build the capacity, systems and infrastructure for effective drought management.

Integration of the Arid Lands into the National Economy: The Government recognizes that poor marketing facilities and inadequate infrastructure are major constraints to the well being of arid lands people, and that the development of the commercial and rural infrastructure is especially important for realizing the full economic potential of the Arid Lands. The Government thus intends to undertake measures to address the bottlenecks that impede market linkages between the Arid Lands and the rest of the country (for local products), thereby developing outlets for trade and promoting economic and geographic mobility of the Arid Land population. Measures aimed at strengthening livestock marketing will include the rehabilitation and development of market centres, stockroutes and holding grounds as well as strengthening the Marketing Information System. A study will be carried out in Project Year 1 to assess the infrastructural requirements and the modalities of involving the private sector for the development of the facilities needed, such as slaughter houses. The Government will also support local capacity building (primarily through training programmes under the Community Development component of ALRMP), with a view to opening up new economic avenues to the pastoralists and improving

their socio-economic status. In this regard, community initiatives for developing alternative or off-farm income generating activities will also be encouraged. Government thus intends to unleash the full development potential of the Arid Lands, by establishing adequate marketing and infrastructural facilities to improve markets and strengthen rural-urban links, utilizing a community-based demand driven approach.

Enhanced level of Social Services for Arid Land Populations: The Government is cognizant of the fact that almost the entire population of the Arid Lands can be classified as living below the poverty line. Not surprisingly, social welfare indicators show that in terms of access to communications, public health, nutrition and education, the predominantly pastoralist population of the Arid Lands, receive only a small fraction of the services available to the rest of the Kenyan population. The Government intends to foster considerable improvements in the living conditions of the Arid Land populations, primarily through the medium of micro-projects identified, planned, implemented and co-financed by the communities (in conjunction with Non-Governmental Agencies). These micro-projects will be conceived and executed within the context of the Community Development component of ALRMP, and will help meet basic social needs, in particular of women and children, through the provision of a package of health, nutrition and food security.

Adequate Policy Framework for Pastoralists' Rights: Recent Government surveys on land use and land tenure systems in arid areas have highlighted key issues, including: inadequacies in the policy and institutional framework for sustainable development of arid lands; the need to take special note of traditional and customary land use systems; the growing conflict between different land use system and technologies; the adverse impact of fragmentation and individualization on formerly communal lands, the need for coordinated land and other natural resource (including water and grazing lands) utilization practices, etc. In light of the above, the Government has set up a task force to review the current legal framework countrywide. The Government will also carry out studies (primarily with local technical assistance) to identify the lacuna in the existing laws and regulations pertaining to the development of the arid lands. These studies will be financed from the proceeds of the proposed Credit. One of the studies to be carried out, utilizing some eight man-months of primarily local consultants, will undertake a thorough review of issues pertaining to land tenure, grazing and other rights of the pastoralists. Furthermore, the study will propose instruments to properly enforce and protect the rights of the pastoralist communities. Should the existing legal framework be found inadequate, new legal instruments, or amendments to existing laws,

to achieve such objectives, will be proposed. This review will be completed within the second year of the project, and a plan of action will be drawn up in consultation with IDA to implement the agreed recommendations of this study within a given time-frame.

Implementation Arrangements

Project Implementation Approach: The bottom-up, community-based, demand driven approach proposed in the ALRMP is the foundation of the District Focus Strategy. This strategy is intended to decentralize management and implementation responsibilities, including planning and monitoring, to the district level. The Government attaches importance to this approach which is in line with its policy for developing the ASAL. In order to ensure that the districts implementing ALRMP have the necessary planning and operational capacity to carry out their respective functions, the necessary commensurate administrative and financial authority have already been delegated to them. Details on the implementation arrangements under ALRMP are presented hereunder.

District Financing Arrangements: The Government is promoting an interactive implementation management culture at all levels of Government, particularly with regard to the handling of development interventions. A number of project management models have been tried; the Government's view is that the model presently being used for EDRP is effective and should be adopted for the ALRMP with suitable modifications. In this regard, existing arrangements for EDRP for making provision in the budget and for transferring project funds to the district for meeting the costs of district-based activities will be applied to ALRMP. These arrangements involve budgeting for project expenditures under one ministry (the Office of the President in this case), Authority to Incur Expenditure (AIE) drawn up only in favour of the District Project Coordinator in each project district, backed by sufficiently large cash transfers to each district, to fully meet the requirements of project expenditures.

Other Implementation Arrangements: For effective implementation of the project, the Government has planned several monitorable actions to be undertaken by the ministries, and the field agencies in a given timeframe so that all the necessary institutional arrangements are in place for timely project startup. These activities are detailed below:

(a) The Government will establish a National Support Unit, the Drought Management Secretariat, and the District Support Units by July 1995 and have in place the core professional staff

within this period. The Government has also drawn up the Terms of Reference of the key agencies, which would be responsible for project management implementation (e.g. Project Steering Committee, District Steering Committees) and included these in the Project Implementation Plan (PIP). A copy of the Draft PIP was furnished to IDA at negotiations. The finalized PIP will be furnished prior to credit effectiveness.

(b) Appropriate budgetary provisions for the project have been included in the forward budget and will be made in the printed estimates of the FY 95/96 budget. The latter will be finalised by the end of June, 1995.

(c) The Government regards the training of the community leaders/members and implementing officials as being crucial for effective project implementation. Therefore, the training plan for FY96 has already been drawn up and furnished to IDA at negotiations. In future, training plans in respect of the next fiscal year will be drawn up annually by March and furnished to IDA on a timely basis.

(d) The Government has agreed to use the established procurement guidelines of GOK for the community micro-projects. These procurement guidelines are deemed to be adequate for implementing the community micro-projects to be carried out under the Community Development and other components of ALRMP. In accordance with these procedures, presently, all procurements upto Kenya Shillings two million (US$40,000) per item may be effected at the district level, without the intervention of the Central Tender Board. The choice of using either quotation (local shopping) or open tendering is at the discretion of the districts. It is deemed that procurements for the micro projects under CDP will be adequately effected at district level (utilizing the existing procurement procedures).

(e) The initial procurement plan has been drawn up and furnished to IDA at negotiations. The Government has also agreed to utilize the Banks's Standard Bidding Documents for Procurement of Goods and Works, as well as the Standard Form of Contract for Consultants' Services.

(f) The key indicators for project implementation as well as the operational indicators have been discussed and finalized during negotiations.

(g) An appropriate financial management and accounting system is

in place for the EDRP. This system will be applied to ALRMP with suitable modifications, and will become operational before credit effectiveness.

Conclusion

In recent years, the Government of Kenya has undertaken various policy reforms aimed at promoting equitable and sustainable economic development in the Arid Lands. It is, however, recognized that the challenges of achieving widespread poverty reduction, prudent natural resources management and environmental conservation, are considerable. The challenge is rooted in the longer term nature of the problem, and the search for substantive and effective solutions. The implementation of the programme described above must be seen to be part of a broader framework for action in the Arid Lands, promoting sustainable and broad-based economic growth, poverty reduction, and environmental management. The Government also believes that the proposed ALRMP and other donor-assisted programmes, will play an important role in facilitating the implementation of critically needed policy reforms with a view to promoting economic and geographic mobility of the Arid Land population over the longer term. The Government is keen to continue working with the Bank to ensure that the proposed project becomes effective at the earliest opportunity, and that it is implemented successfully.

Yours Sincerely,

Hon. W. ~~Musalia~~ Mudavadi
MINISTER FOR FINANCE

ARID LANDS RESOURCE MANAGEMENT PROJECT

Past and Ongoing Programs in the Area

1. Although a number of multilateral and bilateral development projects have been introduced in ASALs in the last two decades, with the exception of a few these have largely focussed on the relatively better off semi-arid lands. The only major investment effort supported by IDA in the arid lands is the EDRP which is being implemented in four arid districts, namely Mandera, Marsabit, Turkana and Tana River (extended to Wajir district during the Mid-term Review). The project objective is to assist the ASAL populations affected by the 1992 drought to begin a sustainable recovery process. The project components include agriculture, livestock, drought management and environment, infrastructure, water management, health services and capacity building. The project became effective in April 1993 and at mid-term (April 1994) the project had disbursed approximately US$9.6 million and committed another US$9.2 million. Under the project financing plan IDA will provide a total assistance of US$27.25 million which includes US$7.25 million diverted for use by EDRP from three IDA-supported Credits in Kenya. The project after a slow start has gained momentum and the implementation of various project activities, with the exception of the infrastructure component, is satisfactory. EDRP has initiated several steps, particularly after re-structuring during the mid-term review, for securing the objectives that the project investments are sustainable and benefits reach the target populations. Community mobilization and participation as appropriate would be a necessary prerequisite for project investments particularly in community oriented development interventions. The rehabilitated dams, water pans and boreholes in Mandera and Marsabit districts have been handed over to communities for operation and management. The animal health component has carried out a vaccination campaign and created a revolving fund for regular replenishment of these stocks in the future. The drought management component has begun the process of establishing drought monitoring systems in three districts. These activities would dovetail into the ALRMP.

2. The second important project is the European Union (EU)-funded Kenya Livestock Development Program (KLDP) which mainly financed livestock infrastructure, a nucleus of extension services, a water component to rehabilitate and establish boreholes and water troughs for the livestock. A recent evaluation study, however, rates the project at mid-term as not having achieved its objectives. The report ascribes this failure to inadequacies in preparation and appraisal followed by poor implementation. The water rehabilitation component, however, was a success in one district and the establishment of water user associations was a notable achievement. The evaluation study has a word of advice on projects implemented with community participation:

> ***Several points must be acknowledged in advance when trying to implement community-led microprojects. Most importantly, all parties have to recognize and resist the temptation to try to do too much, too fast. Microprojects which are most likely to succeed are those based on what has succeeded in that type of place, in the past (rather than on "good ideas"); involve several rounds of negotiations between concerned parties, (rather than one party dictating the pace of discussion); and which spring from the needs of the beneficiaries rather than from assumptions by***

outsiders of what communities need. Furthermore, microprojects must be small in scale, to be manageable.

3. The Pastoralist Integrated Development Project (PIDP), funded by the United Nations Development Program (UNDP) and executed by the Bank on their behalf, is a small scale investment program focussing on the communities' need for drinking water for humans and livestock. Using this as an entry point, it promotes several other community-led development interventions; e.g. sanitary latrines, energy efficient cooking, hygiene and nutrition. Currently it is the leading multi-lateral project to apply a participatory approach to implementation. The project covers three arid districts (Wajir, Marsabit and Mandera) and two semi-arid districts (Laikipia and Baringo). In the Laikipia and Marsabit districts, NGOs are co-financiers and administer the program in the field. Its implementation strategy promotes a high degree of self-reliance by providing external financial assistance only as a help of last resort. The program in Laikipia is implemented by cohesive women's self-help associations bound together by a legal agreement obliging each member to fulfil her share of contribution in cash, kind and labor until project completion. The results on the ground are satisfactory.

4. In three arid districts (Mandera, Wajir, Garissa) the UNICEF supported Nomadic Primary Health Care Project (NPHC) has started well and underscores the importance of community-based approaches. The program is coordinated by the District Inter-sectoral Committee (includes NGOs and multi-sectoral agencies) and seeks to establish Village Inter-sectoral Committees for the day to day management of local components and funds. The program concentrates on health and nutrition, water and livestock, environmental resources and education. Its main focus is the nomadic population and, working through traditional structures, it lays major emphasis on the inter-linkages between the sectors.

5. The Drought Management Project (DMP) funded by the Netherlands targets four arid districts (Turkana, Marsabit, Isiolo and Samburu) and supports the establishment of a drought monitoring system, including a Drought Management System (DMS). A regional center has been established in Samburu which coordinates the activities of the district teams and produces early warning bulletins and literature for the administration and public. The program does not have formal institutional linkages with the district administration, and that has raised questions about the integration of the EWS into the national decision making process. The government is negotiating with the Dutch and the WFP an extension of the DMP for four more years in these districts. After extension the DMP is expected to finance the costs of vehicles and equipment,EWS operations, training, civil works and non-salary operating costs of the program in these districts. However, DMP will utilize the district and national institutional arrangement to be created under the ARLMP for project management.

6. Other small bilateral programs include the Swedish International Development Agency (Water and Soil Conservation), the African Muslim Agency (Water and Conservation); Norwegian Aid (Cooperatives), Irish Concern (Sanitation), and Danish International Development Agency (Rural Development Fund) used to assist schools, water and health components and local crafts.

7. Besides these multilateral and bilateral projects, a number of small focussed projects to address community needs have been undertaken by several NGOs; most with external financing. Community participation is a common feature of these development interventions. The NGO-assisted

projects are generally demand driven and strive to establish community ownership. Notable projects and interventions by NGOs are: the Farm Africa's Camel Development Project in Samburu and Marsabit; Emergency Pastoralist Assistance Group's (EPAG) project in Mandera for livestock marketing, health care and restocking; Oxfam assisted program for livestock veterinary care in Turkana; Catholic Relief Service funded activities in community health and water projects in Tana River; income-generating and restocking activities in Isiolo promoted by Catholic Mission Garba Tula; Catholic Church sponsored child health care program in Turkana; and School Construction and Equipment Program operated by the Tenrikyo Society (Japan) in Garissa.

8. Reviews of the initiatives supported by donors and non-governmental agencies have identified a number of constraints faced by development interventions in the ALs. These include: (a) inadequate implementation capacity in the central government and in the districts; (b) project complexity; (c) top-down approach and lack of beneficiary involvement; (d) inadequate and/or untimely release of both foreign and counterpart funds; (e) procurement delays; (f) lack of project ownership; and (g) inadequate preparation for project activities and unrealistic targets.

ARID LANDS RESOURCE MANAGEMENT PROJECT
DROUGHT MANAGEMENT COMPONENT

Introduction

1. The Drought Monitoring Component of the Arid Lands Resource Management Project, following the work of IDA-supported Emergency Drought Recovery Project (EDRP), would establish an institutional structure at the national and local levels to effectively manage all phases of drought; i.e. drought preparedness, mitigation, and recovery. The component consists of three parts:

- Establishment of a National Structure to enact policies and carry out operational responsibilities for drought management, both within the arid lands and countrywide. This structure would become a permanent part of the Department of Relief and Rehabilitation.

- Establishment of District Structures: for each of the eight project districts, a District Project Support Unit would be created containing capacity for drought management.

- Support to drought mitigation interventions and post-drought recovery.

Background

2. Droughts occur in the arid lands of Kenya periodically and with variable intensity. More severe droughts occur every eight to ten years while the less severe ones occur at intervals of three to four years. A few prolonged droughts (e.g. 1964-65, 1984-85 and 1991-93) led to famine conditions in some parts of the country, particularly in the arid lands. In recent years, there were severe droughts in Kenya in 1960-61, 1964-65, 1974-75, 1979-80, 1984-85 and 1991-93. In the 1980s minor droughts occurred in 1983, 1987 and 1989.

3. Droughts result in considerable social and economic disruption due to loss of livestock and other food production, and make people, particularly the poor (women and children) very vulnerable. During the severe drought of 1984-85, maize production declined by 30 percent and bean production by 70 percent. Livestock population declined by 40 percent. During the drought of 1990, crop output fell by 18 percent, and further declined by 14 percent in 1991. Coffee production declined by 22 percent. Cattle slaughters increased by over 10 percent and 17 percent during 1990 and 1991 respectively, while slaughter of sheep and goats went up by 21 percent and 12 percent respectively. Mortality rates of cattle during the droughts of 1991-93 were as high as 40 percent.

4. The herding practices of pastoralists in the arid lands are well adapted to drought conditions. Diversified herds are divided into small units for mobility to gain access to variable water and fodder resources; exchange of animals through kinship, marriage and friendship ties keep animals dispersed over a wide area, and helps rebuild herds after losses from drought. These coping mechanisms, however, are being undermined by population growth, increasing sendentarization around fixed water points and the loss of dry season grazing areas to other groups and uses. Disruptions in livestock

marketing caused by insecurity have further impoverished pastoralists. Losses of livestock during droughts caused newly destitute pastoralists to migrate to rural and urban centers in search of food aid and employment, thereby further putting pressure on the limited infrastructure and grazing land in these centers.

5. Thus far, the national response to drought has largely been in terms of adhoc emergency food assistance. Instead of drought management, the focus has been on relief food supply, special feeding programs, water supply and mobile health delivery. Long-term management has been confined to providing food security through price stabilization policies, food subsidies, food distribution, rehabilitation and provision of additional water sources and supplementary health programs. These efforts lack integration and as a long- term strategy for drought management, they are not sustainable.

6. Although the Government has formulated a draft drought contingency plan (1992) and a few other related policy instruments1/, none of these has been formally adopted or operationalized. Projects like the EDRP and the Dutch-funded Drought Management Project have yielded positive lessons for drought forecasting and drought mitigation and have laid the groundwork for further action. However, a comprehensive national drought management policy, with institutional structures and procedures at the national and district level for effectively dealing with all phases of drought (e.g contingency plans, drought manuals) are still missing. The drought management component of the ALRMP will fill in these missing links.

Goal and Objectives

7. The overall goal of the Drought Management Component is to institutionalize the management of drought in Kenya into the planning and decision-making processes of the Government in co-operation with the arid lands communities. This will facilitate the effective planning, programming, and disbursement of resources to the districts at the appropriate time. The component shall evolve into a permanent mechanism for coordination of drought-related activities between Government, donors, NGOs and local communities. Participation by pastoral communities will guide the specific priorities for an area before an intervention. The final product will be a national drought management system with a sustainable capacity to cope with drought situations.

8. To achieve the goals, the Drought Management component has the following objectives:

- To establish a Drought Management System, comprising policy, institutional structures and capacity to cope with drought at national, district and community levels on an integrated and sustainable basis.

- To develop districts as the basic units of drought management by strengthening their capacity for drought forecasting and preparedness; mitigation of impact; and coordinated recovery.

1/ National Food Security (Sessional Paper No. 4, 1981), Sustainable Resources Management (Sessional Paper No. 1, 1986), Development Policy for ASAL, 1992 and Environmental Action Plan for ASAL, 1992.

- To establish a clear institutional structure for co-ordinating multi-disciplinary activities amongst various actors involved both within the Government and outside.

- To enable communities to actively participate in drought preparedness, intervention and recovery.

Approach

9. The Drought Management component will build on the institutional structure piloted by the Emergency Drought Recovery Project (EDRP), under the Department of Relief and Rehabilitation (DRR), in the Office of the President. It will underscore the economic rationality of arid lands people for better use of their limited natural resource endowment through pastoralism, and will further build on the strengths of their traditional drought coping mechanisms through community participation and training.

Implementing Arrangements

(a) **National Level**

10. At the national level, the project will establish a Drought Management Secretariat (DMS) under the Department of Relief and Rehabilitation in the Office of the President. The DMS will carry out Government's policy and operational responsibilities for drought management. DMS will at the initial stage of the program will include one incremental professional staff: a Drought Monitoring Officer, with support staff to include a data analyst/secretary. The DMS will be housed at the Drought Management Center (DMC) which will have a Geographical Information System (GIS) facility. A provision has been provided for short term technical assistance for the preparation of manuals and contingency plans.

11. The DMS will perform two distinct functions:

- the development of a national policy on drought management, the preparation of national drought manuals and contingency plans; supervising the preparation of a model district drought manual and model district drought contingency plan; and supervising the preparation of drought manuals and district contingency plans for the target districts; and the establishment of an Drought Monitoring System.

- Strategic planning and management of droughts and famines in the arid lands, including integration of relief operations with drought management, and later, after preparatory work and suitable strengthening, drought management country-wide.

12. The DMS will have the overall responsibility for drought management activities described in the project. It will coordinate drought management activities outside the project area and will be responsible for preparation of model district drought manuals, model district contingency plans, and national drought manual and national contingency plan. The drought monitoring officer will guide the in the preparation of district drought manuals and district contingency plans.

13. The DMS will prepare and submit drought assessment reports to NRRCC and after obtaining its approval, advise the Government to declare drought in the affected area. After formal declaration of drought by the Government, various related Ministries of the Government and the DSUs will undertake appropriate drought mitigation and recovery activities which are laid down in the drought manual and included in the contingency plan.

(b) The District Structure

14. In all project districts, a District Support Unit (DSU) will be created. In Turkana, the existing Drought Contingency Planning Unit (TDCPU) will be renamed. The drought management capacity will be created within the DSU. The District Project Coordinator (DPC) will also function as the principal drought management officer and will be assisted by a Drought Monitoring Officer. The DSU will be responsible for strategic planning (including development of district contingency plan and district manual), periodic updating of the manual and, during droughts, act as the chief operations officer for drought mitigation. It will operate the Drought Monitoring System (DMS), prepare periodical drought forecasts based on analysis of the data gathered through the EWS, and compile the inception report on impending droughts for the consideration of the DRRC. The DRRC would record its recommendations to the DRR in OP for declaring a district or a part of a district drought-affected. Such declaration by the Government would trigger implementation of the district contingency plan in terms of the process and procedures set out in the district drought manual. The district staff for drought management will be housed in the Drought Management Center (DMC), equipped with computer and radio communication facilities. The activities of the DSU for drought management are summarized below:

- Establish and operate the drought Drought Monitoring System (DMS).
- Prepare district drought manual and district contingency plan following the model developed by DMS.
- Assess drought situations following the established process and update the contingency plans.
- Take steps for declaration of drought in terms of the process established under the district drought manual.
- Plan and implement drought mitigation and recovery interventions.
- Appraise, monitor and evaluate the above.

Drought Contingency Fund and Emergency Cereal Reserve

15. As part of the district drought contingency plan, a Drought Contingency Fund would be established at the national level for the target districts, to be utilized for immediate drought mitigation interventions. The fund would cover activities such as health and nutritional support to the vulnerable groups; operation of emergency stock routes for livestock evacuation and drought grazing reserves;

emergency veterinary campaigns for disease control to avoid large-scale livestock deaths; as well as other activities approved under the national or district contingency plans. An Emergency Cereal Reserve of about 15,000 metric tons for the target districts, created with the support of the donor agencies, will maintain stocks for about one month supply for emergency relief feeding and for limited food-for-work (FFW) interventions. The stocks will be maintained by the National Cereals and Produce Board (or any other agency designated by the Government) at the level of 2000 metric tons for a district (1000 metric tons for Isiolo). The project will bear limited costs for management of the Emergency Cereal Reserve. The District Contingency Fund and the Emergency Cereal Reserve will equip the districts to handle the first critical phase of drought with local resources, thus reducing widespread losses and disease, until further support can be mobilized. *Modalities for accessing the fund and for the establishment of the Drought Contingency Fund and Emergency Cereal Reserve will be worked out during the first year of the project. These facilities will be operational by the time of mid- term review.*

Drought Mitigation Interventions

16. Drought mitigation interventions will be planned and implemented at the district level, with support and supervision from the DMS. Activities to support interventions will include:

- funding the civil works, equipment and technical assistance to develop capacities of selected population centers where pastoralists migrate in large numbers during distress, to be effective drought mitigation centers. A minimum level of water, health and other common facilities will be maintained. Facility profiles of these centers will be developed to record and analyze the existing situation, and plans to strengthen minimum levels of infrastructure (water, health and veterinary facilities) for increased demands during drought will be prepared.

- surveys, in consultation with local communities, of the rangelands in the target districts to identify potential drought grazing reserves. The identified areas will be demarcated and gazetted, and appropriate water resources developed where needed. Local communities will manage these facilities and be responsible for their protection and maintenance. They will be trained for these tasks, as required. These activities will be closely coordinated with the Marketing component.

- provision of spares and repairs for equipment, tools, and associated operating costs of the District Works Office (DWO) in order to strengthen their road maintenance capacity and to carry out spot improvement of important roads in the district, using, as far as possible, low-cost labor-intensive technologies. Assistance under the project would fit within the Government's evolving policy on road maintenance under the "Roads 2000" program. The DWO will, in close coordination with DSU, prepare a shelf of labor- intensive road maintenance projects that can be carried out under FFW arrangements during drought periods. The Drought Management Center and the DWO will liaise closely in the management of these activities. It is expected that all spot improvement proposals initiated by DWO (in consultation and close co-ordination with DSU) will be cleared by the District Steering Group (DSG). The DSU would

supervise the implementation of these works to see that these conform to the plans and strategy approved by the DSG.

Monitoring and Evaluation

17. Project monitoring at regular intervals will include the timely submission of progress reports and workplans. The following reports will be prepared by the Drought Management Coordinator:

- **Quarterly Progress Reports** on the implementation of annual work plans will be submitted indicating progress made and shortcomings or obstacles faced and stating remedial actions required to improve progress.

- **Annual Progress Reports** will be submitted to NRRCC indicating project achievements and shortfalls, if any, and the activities included in the next annual work plan.

- **Mid-Term Report**, following the mid-term review, will highlight progress made in achievement of key performance indicators, shortfalls, if any, and lessons learned for future project implementation. Adjustments and revisions including a revised project estimate, will be included.

- The **Final Report** will be prepared at the termination of the project. The report will highlight physical, social and financial achievements and organizational and process constraints. It will make recommendations for future action.

Monitoring Indicators

18. The activities of the Drought Management component with an approximate time sequence for their completion are given in the attached Table.

TABLE: Implementation Schedule

OUTPUT /ACTIVITY	PYO 1994/95	PY1 1995/96	PY2 1996/97	PY3 1997/98	PY4 1998/99	PY5 1999/2000	PY6 2000/2001
1.0 NATIONAL DROUGHT POLICY DEVELOPED							
1.1 draft of policy	—						
1.2 conduct workshop for draft policy		—					
1.3 finalize and print policy		—					
2.0 INSTITUTIONAL STRUCTURE ESTABLISHED							
2.1 Recruit the DMS staff							
2.2 Procure and equip the NDMC		—					
2.3 Operationalize the national data management (GIS)		—					
2.4 Train DMS, NRRCC and ALRMP-PMU staff		—	—	—	—	—	
2.5 Recruit DSUs staff		—					
2.6 Procure and equip DSUs		—					
2.7 Construct DDMCs		—					
2.8 Train DSU and DRRC staff		—	—				
3.0 OPERATIONAL MANUALS PREPARED							
3.1 Prepare the National Drought Manual and Contingency Plan							
3.2 Prepare a model District Drought Manual and Contingency Plan		—					
3.3 Prepare District Drought/Contingency Plans		—	—				

Output / Activity		PY0 1994/95	PY1 1995/96	PY2 1996/97	PY3 1997/98	PY4 1998/99	PY5 1999/2000	PY6 2000/2001
4.0	**RELIEF OPERATIONS INTEGRATED IN DROUGHT MANAGEMENT**							
4.1	Prepare and update training materials for FFW/CFW		———	———	———	———	———	———
4.2	Train NRRCC, DRRCC, DRRCs and Div.RRCs in FFW and CFW		———	———	———	———	———	———
5.0	**DROUGHT FORECASTING AND PREPAREDNESS ESTABLISHED**							
5.1	Establish and operate EWS		———	———	———	———	———	———
5.2	Prepare shelf-projects and update			———	———	———	———	———
5.3	Construct and equip cereal banks			———	———	———	———	———
5.4	Expand and improve water, health and road services			———	———	———	———	———
5.5	Create grazing reserves and management committees			———	———	———	———	———
5.6	Train communities and staff			———	———	———	———	———
5.7	Prepare mitigating strategies with communities			———	———	———	———	———
5.8	Carry out strategic management planning			———	———	———	———	———
5.9	Supervise and monitor district activities			———	———	———	———	———
5.10	Prepare bulletins			———	———	———	———	———
5.11	Setup international meetings for shelter reserves			———	———	———	———	———

ARID LANDS RESOURCE MANAGEMENT PROJECT

MARKETING AND INFRASTRUCTURE COMPONENT

Introduction

1. The broadest justification for a Marketing Component in the Arid Lands Resource Management Project is the near total dependence on livestock of the pastoralist communities for their livelihood and social life. Exchanging animal products for cash and kind is part of the pastoral production system. In addition to benefitting pastoralists, efficient marketing of livestock from the arid lands would benefit the national economy. Over the last 10 years, an average livestock offtake figures for the arid lands were 7.0 percent for cattle, 8.0 percent for sheep and goats and about 1.5 percent for camels. If the current marketing system were improved, these figures could conservatively be raised and sustained at approximately 11 percent, 25 percent and 3 percent respectively. Also when pastoralists are able to achieve a measure of economic resilience, the high costs of providing extensive food aid can be avoided. Finally, pastoralism is a productive use of resources in the arid lands which makes use of skills developed over a lifetime. In many cases, it is the only system that can convert the arid land resources of fodder and water into goods that are directly usable by man. This is a positive alternative to competing for unskilled jobs in the overcrowded cities.

2. Over the years a number of centrally-planned projects for improving the livestock marketing system have been implemented in Kenya with little success. The reason for the failure is that the pastoralists were not actively involved in making the critical decisions. It is now realized that for these development initiatives to succeed the pastoralists should actively participate in decisions that affect their lives. This would be the basic approach to be adopted in implementing the Marketing component under the ALRMP. Communities will identify their most urgent marketing-related issues and participate in finding solutions that reflect their experience. They will be encouraged to form legal entities which will be assisted with funds to complement their own efforts. Communities and user-groups will have a central role in identifying, planning and, where feasible, implementing the development initiatives under this component.

Goal and objectives

3. The goal of the Marketing Component of the ALRMP is to address the bottlenecks that impede market linkages between the Arid Lands and the rest of the economy by increasing the number and efficiency of existing outlets for range livestock products. To achieve this goal the Marketing component will pursue the following objectives:

- To enable pastoralists to set the priorities of the activities supported under the Marketing component.

- To establish a marketing system that enables pastoralists to move their livestock and sell them when and where they want at competitive prices.

- To secure and rehabilitate or create the infrastructure that is essential to the movement of livestock - such as along the trekking routes, holding facilities and market yards at the selling points.

- To establish a livestock marketing-information system that will improve access to market information and facilitate efficient decision-making regarding sale and purchase of livestock by producers, traders and butchers in Kenyan markets.

- To address and help resolve the issues of insecurity in the Arid Lands that hamper the movement of livestock. Best practices for conflict resolution will be compiled and fora established to resolve outstanding issues.

- To improve the marketing and quality of hides and skins through training and support to community groups for the establishment of community-owned drying sheds (*bandas*).

- To create an enabling environment for private-sector investments in facilities and for itinerant trade by identifying and assisting small traders, butchers, and craftsmen at the community level.

Current Status of Livestock Marketing

4. Until 1984, the Livestock Marketing Division of the Ministry of Agriculture, Livestock Development and Marketing, along with the Kenya Meat Commission, held a livestock marketing monopoly in the Arid Lands. Only permits to take livestock to KMC were issued from Northern Kenya, and LMD was the sole dealer in immatures. This led to the arbitrary fixing of producer prices, long delays in payment to producers, and large operating losses which were borne by the tax payers. Under the current initiatives of the Government, livestock marketing has been liberalized and the role of LMD of the Ministry of Agriculture is now restricted to providing marketing information. Further KMC has been re-structured and will compete on an equal footing with the private sector.

5. To date most terminal markets are characterized by artificial gluts and shortages created by lack of information and the inability of traders, who supply the markets from diverse places all over East Africa, to know what is going on in other parts of the marketing system. This sends prices on a roller coaster and makes trading in livestock a speculative exercise. Traders increase their risk premiums to cover anticipated losses related to price fluctuations. This in turn reduces the price producers get. For example when Nairobi slaughterhouses face a surplus and prices fall, traders hold their livestock in Marsabit to avoid making losses. The LMD and GTZ are collaborating to supply market information to Marsabit traders. Reports indicate that as a result of this information, livestock originally destined for Ethiopia have at times been re-directed to the Dagoretti and Dandora slaughterhouses in Nairobi and fetched higher prices.

6. Lack of livestock-marketing related infrastructure, combined with growing insecurity linked to civil strife in neighboring countries, has reduced both the number of livestock traders and the numbers of livestock trekked by drovers. Livestock traders are also involved in retail and wholesale commerce. In the more distant parts of the country the local livestock traders face only token

competition and are able to literally dictate prices of goods and livestock. These traders are often the sole buyer of the pastoralists' livestock products and the sole seller of the essential grains, clothing, sugar and tobacco that are bought with the proceeds.

7. Some cross-border trade continues. Communities in Mandera trade with neighboring communities in Somalia and Ethiopia; the Gabbra and Boran communities in Marsabit trade their camels in Ethiopia and parts of Somalia while the Turkana seem to be sending most of their cattle to Uganda and Sudan. These areas have also served as important sanctuaries for Kenyan livestock in times of drought. Cross border trade plays an important price stabilizing role. On the positive side, swings that one might expect from the large variations in climatic and draught conditions are lessened. On the negative side, eradication of some of the most dangerous diseases like CBPP is almost impossible. Vaccination measures taken on the Kenyan side are quickly negated when unprotected animals cross the border.

ARID LANDS RESOURCE MANAGEMENT PROJECT

COMMUNITY DEVELOPMENT

OBJECTIVE

The objective of the Community Development Component is to increase the communities capacities to sustain and develop their livelihoods by dealing with drought cycles in an effective way. The Participatory Learning for Action (PLA) approach will be used to achieve this objective.

PARTICIPATORY LEARNING FOR ACTION

The PLA method is the main tool, tested under the previous project, to assure community ownership of activities to be undertaken and responsiveness of line ministries to the communities' needs and demands. This method is an improvement upon the Participatory Rural Appraisal technique, and focuses in particular on the elaboration of action plans by the community members and successful completion of agreed actions.

Objectives

PLA has three main objectives:

1. Confirmation of the assessment of what the communities consider to be their priorities in order to generate commitment by communities and line ministries to engage in activities which satisfy those priorities;

2. Assist communities to develop their own action plans for implementation; and

3. Contribute to the implementation of priority actions within those plans.

Methodology

The techniques used to achieve these objectives were originally designed to enable effective communication between illiterate communities and uninformed professionals. The purpose of these technique was for community members and professionals to analyze together the available resources and priority development issues in order to produce a community action plan. Examples of tools in this process include social mapping, wealth ranking, institutional analysis, problem ranking and analysis. To go beyond the mere analysis of the existing situation, and to create a results-oriented momentum within the communities, additional techniques were incorporated which involve group management, leadership styles and conflict resolution as a prerequisite to implementation of action plans.

The action plans resulting from the PLA exercises often involve the implementation of improved water supply, the establishment of revolving drug funds, or other income generating

activities. To assure full ownership of the communities in any activity involving physical inputs, the principal of joint action will be upheld with the communities contributing at least a minimum of 30% and the remaining 70% being contributed by line ministries, collaborating agencies and/or ALRMP. The provision of any physical inputs as well as the follow-up training and support to community members to successfully manage and implement their action plan is part and parcel of the mandate of the respective line ministries.

In order to carry out the PLA exercises, two teams per district will go through the process with four communities per year each. These teams will be composed of technical staff of the respective line ministries involved (MOALDM, MLRRWD, MOH, and others as appropriate) and from collaborating agencies. By doing so, the respective line ministries can not only provide services to the particular partner community involved in the exercise, but can also correct their assessment of what the priority needs and demands from the communities are.

Training

Two main types of training will be required to fully operationalize the PLA methodology: training of staff, and training of community leaders.

The training of staff comprises (a) an orientation session where staff are familiarized with the objectives and methodologies of PLA in the context of the ALRMP; (b) three sessions of eight days residential training to acquire full understanding of the respective techniques involved; and (c) three sessions of one week practical exercises in a specific nomadic community. Successful completion of this training is a prerequisite for staff to participate in the PLA teams. Other staff, as well as decision makers at the district and national level will also participate in this training.

Training of community leaders would be provided by the different PLA teams in each of the districts. The objective of this training is to enhance the communities' capacity to carry out independently the PLA exercises so as to come to well defined and fully owned action plans. Community leaders would be trained during three sessions of one week each, involving mainly practical exercises, backed-up with adapted theoretical explanations.

The detailed training plan for the sessions mentioned above will be part of the PIP.

Detailed Implementation and Management Arrangements

Building on the experience acquired under the previous EDRP, the ALRMP will (a) provide a system and policy for effective drought management; and (b) strengthen the communities' capacity to deal with further droughts. In order to assure long term sustainability, any action or intervention will be designed to be as cost effective as possible, to be community based, and to be implemented through the relevant line ministries and collaborating agencies.

To be successful however, the line ministries will have to adapt their way of operating to the particularities of the Arid Lands (the nomadic character of a large percentage of the population, the distances between communities, the continuing effects of the 1993 drought, etc.). They will also need strong support and guidance from the National Support Unit and the District Coordinators in the Office of the President to meet this challenge. The Ministry of Agriculture, Livestock Development and Marketing, the Ministry of Land Reclamation, Regional and Water Development, and the Ministry of Health have made, during project preparation, a broad outline of the adaptations to be made to their respective ways of operating in order to become more effective in their response to the communities' needs and demands. Other ministries such as the Ministry of Education and the Ministry of Public Works may go through the same exercise if the need arises in the course of project implementation. During the respective district launching workshops, the staff of each line department will examine how the different frameworks for action can be best implemented, taking the local conditions into account. Yearly follow-up workshops will be organized in each district to critically examine and improve the effectiveness of the current way of operating.

A. Office of the President - Department for Relief and Rehabilitation

The Department for Relief and Rehabilitation (DRR) is responsible for the overall implementation of the ALRMP. To this effect, a National Support Unit (NSU) within the DRR is in charge of day to day management and follow-up of the program. More in particular, the NSU is responsible for (a) the coordination of the ALRMP; (b) the monthly publication of national and district drought status reports; (c) the support and supervision to the training initiatives at the district level; and (d) development and sustainance of drought contingency plans and response mechanisms. The NSU is headed by the National Program Coordinator (NPC), who reports to the Director of Programs in the Office of the President, and comprises a drought monitoring officer (DMO), a training officer (TO), and a support unit (accounts officer, supplies officer, drivers, secretaries, and messenger). The professional staff in the NSU will spend most of their time in the field to assist the implementation of the program in the ALs districts. They will give guidance to the District Program Coordinators, and will support the respective line departments with the field implementation of their activities. In particular, the NSU members will assure the proper follow-up for the recommendations made by the PSC.

The District Program Coordinator (DPC) reports to the NPC in the Office of the President and at the district level to the District Commissioner. The DPC has two major responsibilities: (a) to provide critical feed back regarding the efficiency of the respective line ministries' field operations, as well as guidance and support needed to plan and implement their program; and (b) the monthly publication of the drought bulletin. It is

considered to be of crucial importance for the success of the program that the line ministries would have strong and continuous external support from the DPC. In each district, the DPC will be assisted by a support unit comprising a supplies assistant, an accounts assistant, and three support staff (driver, secretary, messenger). The DPC and the unit will be equipped with a 4x4 vehicle and two motorcycles.

B. Ministry of Agriculture, Livestock Development and Marketing

1. Animal health and livestock production

To assure optimal coverage in the most cost effective way, the animal health department will work through Community Animal Health Workers (CAHWs) who will be identified by and work within each livestock users association. Each district will have a total of about 100 CAHWs. The CAHWs will (a) sell basic animal drugs in their community, (b) provide first line animal health care, and (c) serve as "contact pastoralists" for the dissemination of technical messages related to the improvement of the herders' capacity to manage their livestock. These messages will include issues such as disease prevention, vaccination, husbandry practices such as control of parasites, etc. The CAHWs will draw a revenue from the sales of drugs.

Initial training will be provided to the CAHWs in two stages: a one week residential training course followed three months later by a three day refresher course.

Once per month, the CAHWs will have the possibility to meet with the front line staff (FLS) of the department of veterinary services at a well defined meeting point (e.g. the drug store of the livestock users association). Because of the existing distances between the communities, their continuous movement, and the budgetary constraints, it is not possible for the FLS to meet each of the CAHWs in their own homestead. During the monthly meetings, the FLS will train the CAHWs on relevant technical messages. After the meeting, the FLS and the CAHWs decide if and where the FLS should visit any particular community.

One FLS can support about 10 CAHWs. There will be a total of about 10 FLS in each district who will be stationed at the divisional level and who will be equipped with motorcycles. It is not yet clear which alternative should be used in those cases where motorcycles are not a practical means of transportation.

Once every three months, the FLS will participate in a training session. This session will be organized by the District Veterinary Officer (DVO) with the participation of the District Livestock Production Officer (DLPO). The team of SMS in the Livestock Production Department (about three per district) will be responsible for the identification of technical messages related to livestock production, and for the training of the FLS during these sessions. In addition, each FLS will receive a visit from the DVO and the DLPO once every quarter to examine any constraints he/she may encounter in his/her work.

In order to address problems related to the management of the herds wherefore solutions cannot be found at the community level or by the technicians, links with research institutions - KARI and any other source of knowledge - would be established. Modalities on how this would be done will be worked out during implementation.

Vaccination is part and parcel of the mandate of the department of veterinary services. It is understood however that the current system of vaccination is not performing to full

satisfaction. To increase coverage and to minimize costs, the CAHWs will be involved as active partners in the vaccination campaigns. Nevertheless, strengthening of the cold storage of vaccines and logistical support will be needed. To make this support possible, the staff at the district level will examine ways and means of making the existing vaccination effort more effective in coverage.

2. Crop Production Extension

Contrary to the high rainfall areas of the country where crop and livestock production are being practiced by the same farmer, the pastoralists in the Arid Lands are generally not engaged in crop production. The needs for extension of the pastoralists are being addressed through the system of CAHWs as described above. Crop production activities in the ALs are generally localized in very well defined "pockets" (irrigation schemes, highlands, etc.) which vary considerably in size and number of farmers involved - from less than 20 to a few hundred.

To provide extension to the farmers, two scenarios are possible: (a) the front line extension worker lives near the agricultural area. He/she provides support to the farmers within walking distance. Under this scenario, the FLS does not need any specific means of transportation; and (b) the front line staff provide support to a number of farmers in more than one location. He/she will than need a motorcycle to visit the farmers. All front line staff will meet with farmers on a fortnightly basis.

The ratio of number of farm families per FLS will vary from district to district. However, given the distances to be traveled between different areas where agriculture is being practiced, the ratio of FLS per farm families should not exceed one per 200. The actual number of FLS also varies considerably (depending on the importance of agriculture in the district) but never exceeds about 40 FLS.

At least once per month, FLS will benefit from supervision. There will be one supervisor per five to eight FLS. At the district level, a team of SMS will be responsible for the training of FLS. Once per month, the District Agricultural Officer (DAO) will gather all FLS in a specific location for this purpose. The DAO will be equipped with a 4x4 vehicle.

The DAO supervises both the FLS and the supervisors at the divisional level. He/she will benefit from supervision from the provincial agricultural officer and the national level (it is the responsibility of the national extension service that this supervision actually takes place at least once every three months). The District Program Coordinator can flag the issue to the Project Steering Committee for appropriate action in those cases where the supervision from the provincial and national level would not be effective.

C. Ministry of Land Reclamation, Regional and Water Development

At the district level, MLRRWD has the capacity to be involved with about eight new water points per year (borehole, dam, shallow well, etc.) The nature of the water point that should be installed is decided through the Participatory Rural Appraisal exercise by the community and the technicians. More important than the actual installation of the water point is the mobilization of the community and its ownership of the management of the water point.

To achieve these objectives, a team comprising two technical staff from the Water Department as well as a livestock production officer and a social service officer will have a series of sessions with the members of the community water association unit. During these

sessions, issues such as management of the water unit, introduction of the notion of cost recovery, the function of Community Water Workers (CWW), etc. are discussed in detail. Once the users association has elected a management committee, the team of technical staff continues to train the committee members with regard to management skills, operational maintenance, book keeping, formulation of bylaws, environmental impact, etc. This training is organized through three training sessions of three days each with three months interval.

The experience in the field indicates that it is very difficult to have actual accountability for the management of the water unit (including the collection and use of money from the respective users) when the unit is managed by a committee. During project implementation, new ideas will be explored to look for ways to improve the efficiency of the community water unit management.

In addition to the election of a management committee, the users association identifies CWWs - pump attendants, pipe fitters, line patrollers, mechanics and electricians. Each of these CWWs participate in an initial technical training of seven days followed by three one day refresher courses with three months interval.

Depending on the nature of the water point, the actual installation is assured by one of three technical units - a drilling unit for boreholes, a pump installation unit, or a dam construction unit. These units are present in each of the districts and should be equipped with a lorry for transportation of material.

The support to the management and maintenance of the water units is assured through monthly visits from the divisional officers (about three per district) to the CWWs. In most cases, these officers will be equipped with a motorcycle. (It will be examined which alternative can be used in those areas where motorcycles are not a practical means of transportation). In addition, a maintenance unit is on call at the district level to react to demands from the respective users associations to intervene for repairs surpassing the CWWs' capacity. This maintenance unit comprises an electrician, a plant mechanic, and a plumber and will use a 4x4 vehicle equipped with repair tools.

The technical staff will participate in yearly one week refresher courses to improve technical skills and to learn about new technologies such as solar pumps, wind mills, hand pumps, etc. These training sessions will be organized by the departments' district based staff. The staff participating in the teams that coach the communities to come to full ownership of the water points will be trained on community management issues, extension training skills, communication skills, group dynamics, accounting, environmental impact, sanitation, ea. during a one week initial training session. They will participate in six monthly one day refresher courses.

The divisional water officers will benefit from at least one supervision visit per month by the district water engineer. These visits are also instrumental to upgrade the front line staffs' skills and to identify further training needs. The district water engineer visits each of the communities at least once every quarter to check on the efficiency of the services delivered by his/her staff.

D. Ministry of Health

Communities can be categorized according to the presence (or absence) of health facilities: settlements with a health center or dispensary (Type A), settlements without any health

facility (Type B), and nomadic communities (Type C). In each of these communities, the Ministry of Health's Primary Health Care Program has as its objective to assure maximum mother and child welfare, to assure treatment of minor ailments, and to provide preventive and educational services.

In each community, a village health committee is elected by the community members. Guidance to this process is provided by the Trainer of Trainers at the divisional or location level (about four per division). The committee members participate in a one week training geared to improve skills related to management, accounting, community dynamics, leadership, etc. During a public meeting, the community identifies who of the community members can be trained to become a Community Health Worker (CHW, 15 to 20 for a population of about 10,000 people). The existing Traditional Birth Attendants (TBA, 2 to 5 per community) are also proposed to have further training. TBAs have a two week course: one week theory and one week practice. The CHWs' initial training is organized in three sessions: two weeks of theoretical training, one week of practice, followed by another week of theoretical courses. Those CHWs who have some education can be trained further to become community trainer of trainers.

All communities of Type A and B have a community pharmacy where basic drugs, items such as mosquito repellents and nets, and CHW and TBA kits are stored. The pharmacy is also used as an information center: basic data on the health situation in the locality are displayed on an announcement board. One pharmacy can serve a population of about eight to ten thousand people.

The divisional nomadic primary health care team, constituted of the public health officer and a community nurse, will visit Type B communities twice every month on a fixed day. Those days, nomadic CHWs can meet with the health care staff for discussion and consultation. Any other day, the nomadic CHWs can come to the community for replenishment of their small drugs stock and for consultation with community Trainer of Trainers. The pharmacies should be self-sustaining units that cover their expenses with the revenue from the sales of drugs.

At the division level there is a health center which is headed by a clinical officer. He/she supervises, among other things, the divisional nomadic primary health care team. The members of this team are trained during a one week course as TOT and participate in continued education courses about once every three months. They are responsible for the training of the Village Health Committee members, the CHWs, and the TBAs, and their supervision. The team should be equipped with two motorcycles.

To provide outreach services (in addition to the primary health care) to the communities of Type B and C, a district based team of five officers visit the communities at a well defined time and place. They have a van equipped to provide primary curative and preventive health care. In optimal conditions, the team can visit each Type B community once every two months.

At the district level, a Nomadic Primary Health Care Core Team of about four members under the leadership of the district nomadic primary health care coordinator is responsible for the supervision of field activities and the training of staff in the health centers and dispensaries. This team reports to the Medical Officer of Health (MOH).

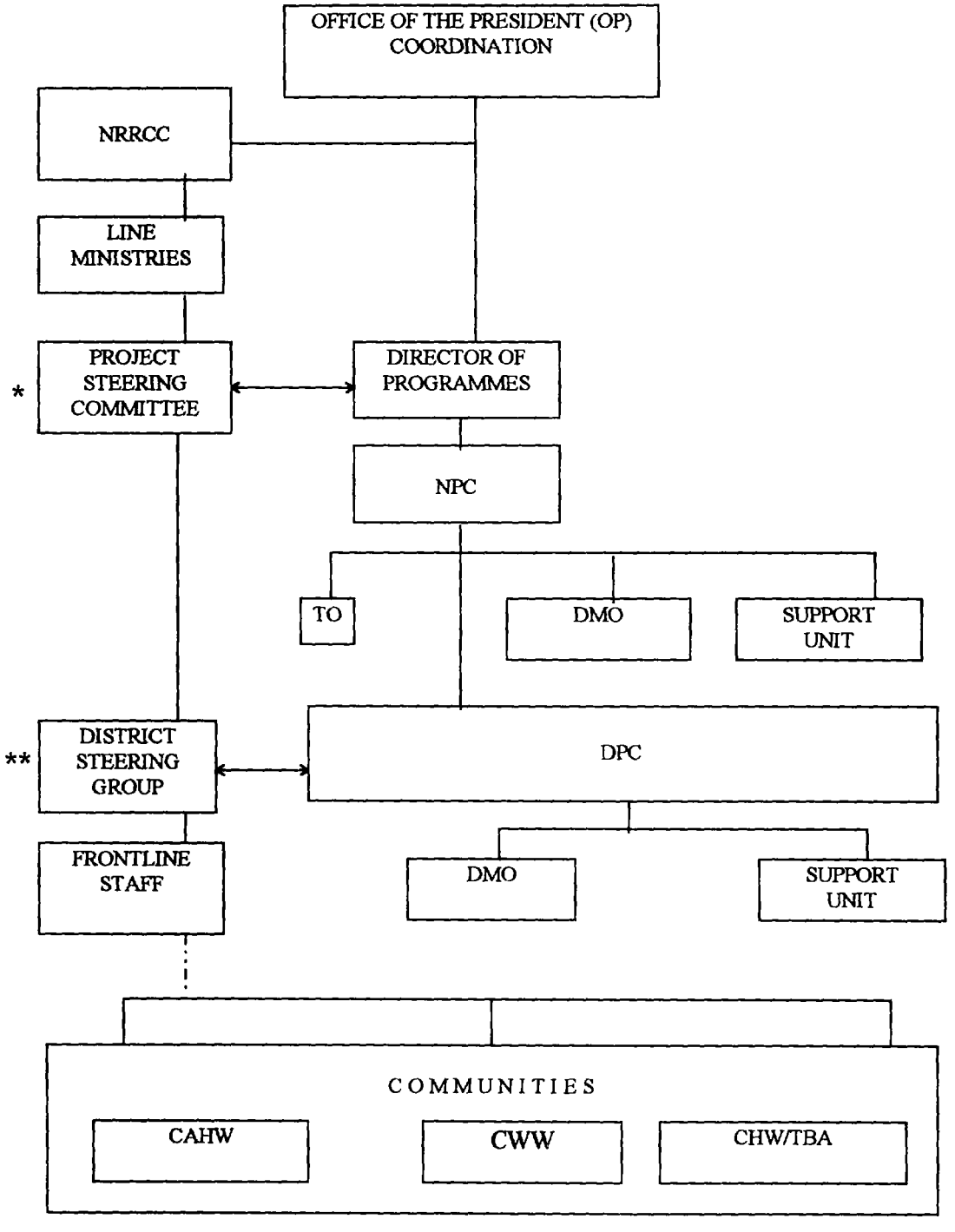
Issues

Collaborating Agencies In order to increase sustainability and cost effectiveness, and to avoid unnecessary overlapping between different organizations, the respective line ministries can sub-contract activities to Collaborating Agencies. Organizations registered with the national NGO Bureau, self-help groups registered with the Department of Social Services, bi-lateral development organizations, and registered religious bodies are examples. Agencies will be assessed according to clearly-defined criteria and will first be approved by the line ministry concerned and by the District Steering Group before the proposed collaboration can be approved and formalized at the national level. Examples of qualifying criteria include having a positive track record of working in the area and delivering community-based services, respecting the relevant line ministries' policy, possessing the necessary technical skills and manpower, and being committed to participatory methods of community development. A sample contract for contracting a collaborating agency is given in the PIP.

A **mid-term review** of the progress and impact of the project interventions will be undertaken by the Borrower and the Bank. The report will cover the first three years of implementation (FY96-FY98) and cover the following broad areas: (a) effectiveness of the drought monitoring and mitigation activities; (b) effectiveness of the field operations of each of the line ministries; (c) the physical progress relative to agreed targets: (d) rate of disbursements relative to appraisal forecasts; (e) proposals for restructuring the project components as needed in light of implementation experience; (f) impact evaluation; (g) proposals for inter category reallocation of funds; and (h) status of performance of legal and financial covenants and proposals for revisions as needed.

Gender concerns The project will strive to promote gender balance and incorporate the concerns of pastoralist women in project implementation. Women will be encouraged to apply for all available positions. Of the two community leaders who will participate in the DSC, at least one would be a women. At least one female staff (preferably a local staff mastering the community members' language) will be part of the teams responsible for the PRA exercises. Finally, the District Program Coordinators will have as a special task to monitor the gender responsiveness of each of the line ministries, in particular as related to the services provided to the respective communities.

ORGANIZATIONAL CHART



CAHW	-	Community Animal Health Workers	NRRC	-	National Relief & Rehabilitation Committee
CWW	-	Community Water Workers	NPC	-	National Project Coordinator
CHW	-	Community Health Workers	NRRC	-	National Relief & Rehabilitation Committee
DMO	-	Drought Monitoring Officer	OP	-	Office of the President
DPC	-	District Project Coordinator	TO	-	Training Officer
NPC	-	National Project Coordinator	TBA	-	Traditional Birth Attendants

*Members are the Directors of Line Ministries/Departments.

**Members are Heads of Departments at District Level.

KENYA
Arid Lands Resource Management Project
Project Components by Year

	Base Cost (KShs. '000)							Base Cost (US$ '000)						
	96/97	97/98	98/99	99/00	00/01	01/02	Total	96/97	97/98	98/99	99/00	00/01	01/02	Total
1. Drought Management	61,329.4	115,115.6	181,577.6	96,926.6	38,187.3	29,867.3	658,123.8	1,871.0	2,558.1	2,251.3	2,153.9	673.5	663.7	10,180.5
2. Marketing and Infrastructure	13,662.7	32,149.1	38,721.1	29,595.4	17,969.3	14,365.0	146,863.4	303.6	714.1	673.6	657.7	399.3	318.8	3,067.6
3. Community Development Package	60,927.7	37,096.6	46,849.6	51,384.6	27,888.0	27,888.0	249,588.5	1,353.2	824.4	1,020.4	1,141.9	620.0	608.0	5,546.6
4. Project Support Units	35,620.4	39,431.4	41,788.7	34,829.0	31,183.5	23,331.4	204,384.5	787.1	877.1	926.9	774.0	693.0	517.1	4,535.2
Total BASELINE COSTS	196,340.2	219,532.6	218,707.2	212,735.8	106,168.7	98,981.8	1,047,088	4,318.7	4,774.1	4,802.4	4,723.5	2,365.8	2,199.6	23,268.8
Physical Contingencies	6,833.2	6,058.2	6,111.3	5,890.2	2,383.9	2,077.6	26,469.8	152.0	134.6	91.8	111.1	53.0	46.2	588.2
Price Contingencies														
Inflation														
Local	7,022.9	29,196.5	35,289.5	38,859.3	26,637.9	33,732.2	172,868.3	156.1	648.8	786.2	861.4	636.6	749.6	3,841.5
Foreign	2,218.3	1,371.7	3,223.6	6,318.0	2,534.7	2,232.8	17,891.0	49.1	30.5	71.6	140.4	56.3	49.6	397.6
Subtotal Inflation	9,233.2	30,568.3	38,644.6	45,216.3	31,172.5	35,965.0	190,759.2	205.2	679.3	857.9	1,004.8	692.7	799.2	4,239.1
Devaluation	32,325.7	5,320.0	10,122.5	18,815.0	6,885.1	5,691.3	59,190.3	-169.2	-583.3	-817.1	-613.0	-462.0	-532.1	-3,881.9
Subtotal Price Contingencies	41,559.9	35,888.3	48,767.1	63,961.3	38,058.0	41,656.2	249,549.6	36.0	96.0	245.5	261.6	230.7	267.1	1,237.2
Total PROJECT COSTS	222,337.3	256,778.9	272,545.4	281,187.3	146,902.6	142,717.7	1,323,079	4,506.7	5,904.7	5,219.2	5,289.8	2,619.5	2,512.9	25,093.8
Taxes	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Foreign Exchange	120,181.3	39,529.0	64,039.8	95,652.5	31,700.5	28,126.8	376,675.5	2,414.6	769.1	1,189.0	1,315.7	551.6	493.7	7,059.7

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KENYA
Arid Lands Resource Management Project
Project Components by Year

	Totals Including Contingencies (KShs. '000)							Totals Including Contingencies (US$ '000)						
	96/97	97/98	98/99	99/00	00/01	01/02	Total	96/97	97/98	98/99	99/00	00/01	01/02	Total
1. Drought Management	98,125.0	138,319.3	122,728.8	128,603.7	42,776.8	41,248.8	574,702.4	1,988.5	2,675.1	2,392.6	2,377.5	756.9	762.5	10,933.1
2. Marketing and Infrastructure	15,183.7	39,348.4	38,937.3	40,932.6	25,933.0	21,766.7	183,343.6	315.2	759.6	732.3	730.7	453.3	369.0	3,368.1
3. Community Development Package	69,813.6	43,826.7	56,995.2	65,968.8	35,256.7	37,016.2	308,886.7	1,411.0	867.8	1,091.5	1,240.6	661.5	676.7	5,953.2
4. Project Support Units	39,277.0	35,891.8	52,834.4	43,892.4	42,946.1	33,668.8	256,128.6	812.0	788.1	1,082.9	851.6	733.8	704.7	4,857.1
Total PROJECT COSTS	222,737.3	256,378.9	272,545.4	281,397.3	146,902.6	142,717.7	1,323,879	4,506.7	5,904.7	5,219.2	5,200.4	2,619.5	2,512.9	25,093.1

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KENYA

ARID LANDS RESOURCE MANAGEMENT PROJECT

Schedule of Disbursements
(US$ Millions)

	Loan Disbursement		Cumulative Total (%)	Disbursement Profile 1/
	During Semester	Cumulative		
FY96				
June 1996	1.2	1.2	6%	3%
FY97				
December 1996	2.2	3.4	16%	10%
June 1997	2.2	5.6	26%	22%
FY98				
December 1997	2.2	7.8	35%	30%
June 1998	2.2	10.0	45%	38%
FY99				
December 1998	2.6	12.6	57%	46%
June 1999	2.6	15.2	69%	58%
FY00				
December 1999	1.8	17.0	77%	62%
June 2000	1.9	18.9	86%	74%
FY01				
December 2000	1.6	20.5	93%	82%
June 2001	1.5	22.0	100%	94%

1/ Disbursement profile for all agriculture projects in Kenya.

KENYA

ARID LANDS RESOURCE MANAGEMENT PROJECT

Summary of the Environmental Impact Assessment

Introduction

1. A study was conducted in March/April, 1994 to assess the environmental impact of the proposed activities of the Arid Lands Resource Management Project.2/ Short field visits to Turkana, Marsabit, Wajir and Mandera districts to interview district staff, NGOs, and communities supplemented a desk study. The assessment attempted to predict the probable changes ALRMP would bring to the socio-economic and bio-physical environment of the arid lands. In all areas of ALRMP activities, no significant negative impact on either the bio-physical or socio-economic environment were found.

Background

2. Kenya's arid lands cover approximately 63 percent of the country's surface area, and classified into two agro-climate zones (VI and VII). The generally bimodal rainfall is erratic, of high intensity, short duration and often results in high surface runoff and soil erosion. Soils are characterized by low inherent fertility, often forming subsurface hardpan. They have moderate to low waterholding capacity; strong surface sealing and crusting properties; high silt and sodium content (especially in subsoils); and are highly susceptible to erosion. Most rivers are ephemeral and subject to high and low seasonal flows with varying sediment loads. Flash floods in rivers are increasingly regulated by dam construction. While this minimizes the destructive effect of the floods on flora and fauna, they also have negative impacts, especially in limiting residual moisture agriculture and reducing the availability of water (e.g. sand and subsurface dams). Groundwater potential is highly variable in quantity and quality; surface water resources are generally scarce and variable.

3. Pastoralist production systems, with herds composed of various combinations of camels, cattle, goats, sheep and donkeys, are best suited to the arid lands; agriculture is only possible in less than one percent of the entire area. Pastoralists have developed strategies to ensure sound utilization of natural resources including distinctions between wet and dry season grazing areas, dividing herds as precaution against overgrazing and disease, and mobility in response to varying climatic conditions. Pastoralists rehabilitate their range by allowing undisturbed growth and seed production during the growing period, and avoiding foraging on impoverished pastures. However, increasing loss of dry season grazing areas to agriculture and other uses, partly resulting from population overspill from high-potential areas of Kenya into semi-arid areas, and, in certain areas, population pressures within the arid lands, has led to widespread livestock losses during drought and settlement around relief centers. The trend toward sedentarization is also augmented by the fixed services provided by GOK, religious groups and NGOs, as well as by the support for agricultural (as opposed to livestock)

2/ The study was conducted by W.K. Yabann, E.K. Biamah, and A.J. Haji of AITEC Resource Management Consultants, Nairobi.

initiatives these agencies have offered. Also, the Shifta wars of the 1960s, which lead to mass displacement of nomads and loss of livestock, has been a contributing factor. Settlement is associated with land degradation. Thus, the overall carrying capacity of the arid lands has been reduced, a feature which has been exacerbated by neighboring wars and social conflicts.

4. The distribution of livestock within ethnic groups is changing as a small elite own the majority of animals and more and more families barely subsist. The availability of milk in the dry season is the critical factor at household level; animals are increasingly sold to purchase grain (and other cash needs), which undermines the possibility of herd expansion (and drought recovery). Another trend is acute male labor shortages in the pastoral household due to school enrollment and out-migration for urban jobs. These factors have led to a high number of female-headed households and new roles for women. The trend is to diversify incomes through education and wage labor, or other income-generating activities.

Impacts

5. Overall, the ALRMP is not expected to have any negative impact on the social or physical environment of the arid lands. None of the activities of the **Drought Management Component**, which includes strengthening the country's institutional capacity for advanced drought preparedness, for monitoring and predicting droughts, and for mitigating their impact by timely and effective responses and coordination of post-drought recovery activities, is expected to have direct negative impacts on the environment. Because road rehabilitation and development of drought mitigation centers will be confined to existing infrastructure, no negatives impacts are envisioned.

6. Some of the activities under the **Livestock Marketing Component** could have a degree of negative impact on the environment, but overall the positive impacts of these activities outweigh any negative ones. Negative impacts could result from increased numbers of livestock along revised stockroutes, and settlement around holding grounds and service facilities such as auction yards and watering points. However, with community-based planned access and appropriate range management practices this minimal impact could be eliminated. The development of stockroutes will help increase offtake and ease pressure on grazing.

7. On the whole the **Community Development Component** is expected to have either positive or neutral environmental impact. Training activities would have a positive impact, as would the establishment of fuel woodlots near urban centers, and the pilot testing of technological packages. As long as water schemes are small in scale, no environmental impacts are envisioned. Income generating activities to diversify the pastoral economy would have a positive impact, so long as the new activities do not reduce the viability of primary pastoral activities. It is recommended that certain CD activities should give deliberate attention to women, children and youths, so that they might be sensitized to equitable and sustainable development.

8. In order to enhance the positive impacts of the ALRMP, it is suggested that large water sources not be developed unless complete environmental impact studies of each sub-project is conducted. The possibility of increased numbers of livestock along stockroutes and the network water points should be monitored closely so that trends can be established. Finally, a situation analysis identifying the roles and status of women at the household and community levels is recommended.

9. Monitoring and evaluation of the environmental impact of the ALRMP should be a continuous process and it is recommended that data collection and analysis occur at every level of implementation. Some of the parameters and indicators of environmental effects include: rate of increase of livestock numbers and human population around water points, trends in soil erosion, grazing around water points, sedentarization trends, sales of livestock, changes in pastoralists' lifestyles, changes in household income, etc. A multi-disciplinary monitoring network should be established involving all the relevant actors in the arid lands.

Key Performance Indicators

Activity	Indicator	1996	1997	1998	1999	2000	2001
Drought Management							
Implementation of drought monitoring system	number of monthly drought reports(national and district)	108	132	132	132	132	132
Establishment of Drought Contingency Fund	availability of fund	y	y	y	y	y	y
Establishment of emergency cereal reserve	number of district cereal reserves	5	10	10	10	10	10
Elaboration of drought contingency plans	accepted by District Steering Group		5	5			
Drought mitigation interventions	number of operational grazing reserves		5	10	10	10	10
Marketing and infrastructure							
Holding grounds/stockroutes/market centers	identified and planned	8	16	24			
	implemented		8	24	48	48	48
Community Development							
Support to animal health and livestock	number of Community Animal Health Workers trained and operational	500	1000	1000	1000	1000	1000
	increase in percentage of vaccination coverage		5%	5%	5%	5%	5%
	percentage decrease in cattle and goat pneumonia		5%	5%	5%	5%	5%
	increase in offtake of animals		0.50%	0.50%	0.50%	0.50%	0.50%
Support to crop production	number of demonstration plots	1000	2000	3000	3000	3000	3000
	percentage increase in yields of major crops (maize, sorghum, tomato)		3%	3%	3%	3%	3%
Water supply	number of new water supply units	40	40	80	80	100	100
	number of Community Water Workers trained and operational	200	300	400	500	600	600
Human health	number of Traditional Birth Attendants trained and operational	100	200	300	400	400	400
	number of Community Health Workers trained and operational	50	100	150	200	200	200
	percentage decline in common diseases		3%	3%	3%	3%	3%
	percentage decline in child mortality rate		5%	5%	5%	5%	5%
Training	number of staff participating in initial training	1000	500	200	200	200	200

KENYA
ARID LANDS RESOURCE MANAGEMENT PROJECT
Supervision Plan

Approx. Dates	Key Activities	Expected Skills	Input Staff Weeks
10-11/95	Project Launch Mission, including launch workshops for each districts	Institutions and Community Specialist, Procurement Specialist, and Disbursement Officer	8
02/96	Supervision Mission; field visit to 2 districts - review progress, issues; special emphasis on (i) training of development actors under CD & Drought Management; (ii) finalizing community-training component of Marketing Component (iii) finalization of contracts of major studies & study start-up	Institutions and Community Specialist, Procurement Specialist, Livestock Marketing Specialist, and Drought Management Specialist	10
06/96	Supervision Mission: focus on progress review relative to annual workplan targets, and finalization of AWP for PY2: on-ground progress of CD component; procurement progress; accounts and audit arrangement; visit 3 districts	Institutions and Community Specialist, Marketing Specialist, Procurement Specialist	10
11/96	Supervision Mission: Review progress on FY2 workplan; procurement progress, review reports of the studies (land tenure, guarantine line) and finalize next steps, review progress on preparation of CD manual; district alright manuals and contingency plans special focus on on-ground progress of the community microprojects and establishment of EWS; Field visits to at least 2 districts.	Institutions & Community Specialist Drought Mgt Specialist Livestock Specialist Procurement Specialist	10
3/97	Supervision Mission: same as on 11/96 plus (i) prepare for 2-year evaluation of CD Component; (ii) review audit reports (iii) review first drafts of AWP for PY3 (iv) field visits to at least 2 districts.	Institutions & Community Specialist Disbursement/Finance Specialist Rural Roads Engineer	8

Approx. Dates	Key Activities	Expected Skills	Input Staff Weeks
10/97	Supervision Mission: review of PY2 financial & physical progress; review CD evaluation report and decide on extension of the component; review the final drought manuals & contingency plans; focus on on-ground operation of rehabilitated stock routes, holding grounds and market yards.	Institutions and Community Specialist Livestock Mktg Specialist	8
4/98	Supervision Mission: Review of FY3 workplan implementation, special focus on preparation for the mid-term review	Monitoring & Evaluation Expert, Drought Management Specialist	8
10/98	Mid-term Project Review and compliance of loan covenants - progress on the institutional & investment programs, review of the physical & financial targets for the remaining project period and mid-course correction ; visit to at least 6 of the 8 districts;	Institutions & Community Specialist Drought Management Specialist Livestock Mktg Specialist Procurement Specialist Financial & Disbursement Specialist Rural Roads Engineer	12
3/99	Supervision Mission: Progress review with special focus on implementing MTR agreements, finalize AWP for FY5; visit two districts	Institutions & Community Specialist Drought Management Specialist	8
10/99, 3/2000 and 10/2000	Supervision missions for progress review, field visit to 2 districts in each mission	Two member mission comprising Task Manager and one specialist (alternatively for the three components)	18 (6 sw each)
FY 2001	Credit Closing/ICR	Institutions & Community Specialist Livestock Mktg Specialist DM Specialist Operations Assistant	8
	TOTAL		108
1995-2001	TOTAL SUPERVISION REQUIREMENT		108

ECONOMIC AND FINANCIAL ANALYSIS

1. The main quantifiable as well as non-monetizeable benefits accruing from the implementation of the various project components have been described at some length in paras. 5.5 through 5.15 , of the SAR. The basic cost/ benefit analysis undertaken indicates that, even with modest assumptions about the quantifiable project benefits, the potential returns from ALRMP will be fairly substantial. In view of the impact of the recent price reforms in Kenya, the key distortions in the foreign exchange rate, interest rates, wage rates and product prices have been removed. Thus, economic prices are expected to be very close to financial prices. A project life of 20 years is assumed for purposes of benefit-cost streams assessment. All transfers to GOK have been excluded from project benefits & costs; realistically, the fiscal impact of project benefits is expected to be negligible, due to the informal nature of the livestock and labor markets in the ALs. Hence, taxes and duties were excluded from the economic analysis. Also, price contingencies were not reflected in project costs, since the project benefits were evaluated in constant terms, over the project life.

2. The analysis assumes that the main **benefits** resulting from the Drought Management Component of the project would stem from a reduction in livestock mortality rates by about 25 percent, i.e., the herd losses due to drought (direct losses due to starvation and disease/pestilence or indirect losses due to heightened slaughter rates) would be reduced by one-quarter of the present high levels. On the basis of past trends, it is also assumed that a severe drought is experienced every 10 years, while a less severe one is experienced every 5 years. Hence, the 20 year project period would witness savings related to four droughts of differing severities. The provision of animal health services under the Marketing and Infrastructure and CD components, as well as the emergency veterinary campaigns during droughts, coupled with improvements in water supply and nutrition, will contribute towards improved weight and low disease rate herds. The premium for the improved quality livestock (along with the reduced transportation/ marketing costs) is expected to translate into a modest 10 percent price increment.

3. It is very conservatively estimated that the improvements to the marketing infrastructure/ facilities of the ALs described earlier, would increase annual sales of cattle and small ruminants by 20 percent each over current rates, and that of camels by just 10 percent p.a., at full development. However, sales volumes (off-take rates) are estimated to drop to 50 percent of their normal levels in severe droughts and by an average of 35 percent during the two subsequent years (following a severe drought year), while herd sizes build back to their original levels. Drastically reduced prices (on the basis of prices prevailing during the severe drought of 1991/92) have been applied during severe droughts, for purposes of valuing the livestock. Given the substantial drought mitigation/management efforts under the project, it is assumed that the prices during the less severe droughts will stabilize at around fifty percent of the normal farmgate price levels. The benefits from incremental livestock sales under the project are calculated by applying the increases in off-take rates to the

average herd sizes at the improved (with project) prices and by discounting for the drought effect as above. The main quantifiable benefit from the CD component is expected to result from a 10 percent improvement in the gross incomes of about 15 percent of the AL populations who are expected to set up micro-enterprises with project support. Project investment and recurrent **costs** related to each of the three components, were netted out against the benefits streams. Project Support Unit costs were also included in the analysis. Following project completion, recurrent costs were assumed to continue at levels essential for sustaining an adequate flow of services related to the activities initiated under the project. A one time replacement/rehabilitation expenditure in PY12, related to drought management equipment/infrastructure (US$ 1.5 million), and for the rehabilitation/ construction of roads and replacement of construction and repair equipment (US$ 0.4 million) was also included in the analysis.

4. Based on the foregoing, an ERR of 16.9 percent is calculated for the project. Results from switching value analysis for an ERR of 10 percent which is the Opportunity Cost of Capital (OCC) for Kenya, demonstrate that a significant change in benefits or costs, i.e. a 34 percent drop in total (quantifiable) benefits, or a large increase of 51 percent in costs would be required in order to reduce the ERR to 10 percent. Sensitivity Analysis shows that if benefits fall or costs increase by 25 percent, the ERR would fall to 12 percent and 13.1 percent, respectively. Alternately, if benefits increase or costs fall by 25 percent, the ERR would rise to 21.3 percent and 22.6 percent, respectively. An enormous decline of 70 percent in total benefits would be essential in order for the ERR to drop to zero percent. Conversely, an exponential increase of 200 percent in total project costs would push the ERR to zero percent. If all quantifiable benefits envisaged to accrue from the drought mitigation/ management interventions under ALRMP are excluded from the total benefits stream, the project's ERR would decline to 10.4 percent; if instead, the benefits from the marketing and infrastructure improvements under the project are excluded, the ERR drops to 5.3 percent. The exclusion of the CD benefits reduces the ERR to 14.4 percent. No independent lag analysis of the project's benefits stream was undertaken, as the impact of droughts on the project's benefits stream was built into the basic economic analysis model.

Kenya Arid Lands Resource Management Project: Economic and Financial Analysis

Years/drought years	96/97	97/98	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16
					less					severe					less					severe
Quantifiable Benefits					severe										severe					
Reduced Mortality from Drought Management	0	0	0	0	6014	0	0	0	0	8870	0	0	0	0	6014	0	0	0	0	8870
Improved Sales from strenghtening of mkt. infrastructure	0	0	363	581	544	3483	3483	4572	4572	642	835	835	4572	4572	2286	4572	4572	4572	4572	642
Increased Income from off-farm micro-enterprises	0	0	0	0	0	75	150	150	375	375	375	1500	1500	1500	1500	1500	1500	1500	1500	1500
Increased income from water (boreholes, home gardens, labor savings)	0	0	0	0	3	103	132	211	263	3	132	263	263	263	105	263	263	263	263	26
Increased income from better employment of 5% receiving education	0	0	0	0	0	0	0	0	0	0	12	23	35	46	58	69	81	92	104	115
Total Quantifiable Benefits	0	0	363	581	6561	3661	3765	4932	5210	9890	1353	2621	6369	6381	9963	6404	6415	6427	6438	11154
Project Costs & Post-Project Recurrent Costs																				
Drought management component costs	1920	2604	2303	2200	719	709	330	330	330	330	330	1500	330	330	330	330	330	330	330	330
Marketing infrastructure costs	324	735	694	678	420	339	30	30	30	30	30	400	30	30	30	30	30	30	30	30
Costs of CDP component	1371	842	1042	1159	617	617	164	164	164	82	82	82	82	82	82	82	82	82	82	82
Project Support Unit Costs	802	692	942	789	708	632	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Costs	4417	4872	4980	4826	2464	2298	524	524	524	442	442	1982	442	442	442	442	442	442	442	442
Net Benefits from Project	-4417	-4872	-4618	-4245	4097	1363	3240	4408	4685	9448	911	639	5927	5938	9520	5961	5973	5984	5996	10711
Internal Rate of Return:	16.9%																			

Kenya Arid Lands Resource Management Project: Sensitivity Analysis

	96/97	97/98	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16
Total Quantifiable Benefits(Base Case)	0	0	363	581	6561	3661	3765	4932	5210	9890	1353	2621	6369	6381	9963	6404	6415	6427	6438	11154
Total Costs (Base Case)	4417	4872	4980	4826	2464	2298	524	524	524	442	442	1982	442	442	442	442	442	442	442	442
Net Benefits	-4417	-4872	-4618	-4245	4097	1363	3241	4408	4686	9448	911	639	5927	5939	9521	5962	5973	5985	5996	10712
IRR	17%																			
Total Quantifiable Benefits (up 25%)	0	0	454	726	8201	4576	4706	6165	6513	12363	1691	3276	7961	7976	12454	8005	8019	8034	8048	13943
Total Costs	4417	4872	4980	4826	2464	2298	524	524	524	442	442	1982	442	442	442	442	442	442	442	442
Net Benefits	-4417	-4872	-4527	-4099	5737	2279	4182	5641	5988	11920	1249	1294	7519	7534	12011	7563	7576	7591	7605	13500
IRR	21%																			
Total Quantifiable Benefits (down 25%)	0	0	272	436	4921	2746	2824	3699	3908	7418	1015	1966	4777	4786	7472	4803	4811	4820	4829	8366
Total Costs	4417	4872	4980	4826	2464	2298	524	524	524	442	442	1982	442	442	442	442	442	442	442	442
Net benefits	-4417	-4872	-4708	-4390	2457	448	2299	3175	3383	6975	572	-16	4334	4343	7030	4361	4369	4378	4386	7923
IRR	12%																			
Total Quantifiable Benefits (down 50%)	0	0	181	291	3281	1831	1883	2466	2605	4945	677	1311	3185	3191	4982	3202	3208	3214	3219	5577
Total Costs	4417	4872	4980	4826	2464	2298	524	524	524	442	442	1982	442	442	442	442	442	442	442	442
Net Benefits	-4417	-4872	-4799	-4535	817	-467	1358	1942	2081	4503	234	-672	2742	2748	4539	2760	2765	2771	2777	5135
IRR	6%																			
Total Quantifiable Benefits (down 70%)	0	0	109	174	1968	1098	1130	1480	1563	2967	406	786	1911	1914	2989	1921	1925	1928	1931	3346
Total Costs	4417	4872	4980	4826	2464	2298	524	524	524	442	442	1982	442	442	442	442	442	442	442	442
Net Benefits	-4417	-4872	-4872	-4651	-496	-1199	605	955	1039	2525	-37	-1196	1468	1472	2546	1479	1482	1486	1489	2904
IRR	0%																			
Total quantifiable benefits	0	0	363	581	6561	3661	3765	4932	5210	9890	1353	2621	6369	6381	9963	6404	6415	6427	6438	11154
Total costs (up 25%)	5521	6090	6226	6032	3080	2872	656	656	656	553	553	2478	553	553	553	553	553	553	553	553
Net Benefts	-5521	-6090	-5863	-5451	3481	789	3109	4276	4564	9337	800	143	5816	5828	9410	5851	5862	5874	5885	10601
IRR	13%																			
Total quantifiable benefits	0	0	363	581	6561	3661	3765	4932	5210	9890	1353	2621	6369	6381	9963	6404	6415	6427	6438	11154
Total costs (down 25%)	3312	3654	3735	3619	1848	1723	393	393	393	332	332	1487	332	332	332	332	332	332	332	332
Net Benefits	-3312	-3654	-3373	-3038	4713	1938	3372	4539	4817	9558	1021	1134	6037	6049	9631	6072	6083	6095	6106	10822
IRR	23%																			
Total quantifiable benefits	0	0	363	581	6561	3661	3765	4932	5210	9890	1353	2621	6369	6381	9963	6404	6415	6427	6438	11154
Total costs (up 200%)	13250	14616	14941	14477	7392	6893	1573	1573	1573	1327	1327	5946	1327	1327	1327	1327	1327	1327	1327	1327
Net Benefits	-13250	-14616	-14578	-13896	-831	-3232	2192	3359	3637	8563	26	-3325	5042	5054	8636	5077	5088	5100	5111	9827
IRR	0%																			

KENYA

ARID LANDS RESOURCE MANAGEMENT PROJECt

Documents in Project File

- Arid Lands Data (22 tables) and information sheets (1994)
- Arid & Semi-arid Land Project Catalogue (1993)
- Proceedings of Workshops on ASAL (1992-94)
- District Profiles - Meteorological Department (1993) - (10 profiles)
- Action Plan for Community Participation in ASAL (2 Working Papers)
- Development Policy for ASAL - Government of Kenya (1992)
- Development Plan 1994/96 - Republic of Kenya (1994)
- Drought Monitoring Bulletins 1993/94 - (30 Bulletins)
- Environmental Impact Assessment of ALRMP - AITEC Resources Management Consultant (May 1994)
- Drought Preparedness, Intervention and Recovery in ASAL of Kenya - EEC/WFP (1992)
- Environmental Action Plan - Republic of Kenya (1993) (for x 23 ASAL districts)
- Evaluation of Participatory Methodologies in Kenya
- Human Resource Development Plan for ASAL - Government of Kenya (1991/93)
- Integrated Development Programmes in ASAL Districts - Kenya/Netherlands Program (1993)
- Kenya Food & Nutrition Policy - World Bank Sector Report (1991)
- The Constitution of Kenya
- Legal Issues in Designing and Implementing Bank-financed Projects with Community Participation - (1994)
- Livestock Development in Asal Areas of Kenya - Holderman (1988)

- Marketing of Livestock & Products in Garissa, and Turkana - Chabari Francis N, Ministry of Livestock Development (1991)
- Pastoralist Integrated Development Project - Ministry of Land Reclamation, Regional & Water Development (1992/93)
- Pastoral Production system and Livestock Development Project: An East African Perspective - Dyson , Hudson Weville
- Perspective Plan (1994-2000) - ASAL Development Programmes - Government of Kenya (1994).
- Range Management Handbooks of arid districts (1988-92)
- Famine Code - Government of Rajasthan
- Drought Manual - Turkana District (1992)
- Use of Renewable Energy Technologies in Arid Lands Report- Hankins, Mark, de Schutter (1994)
- Draft Executive Summary-Kenya Poverty Assessment Report, World Bank (1994)
- Detailed Glossary of ALRMP-related documents
- Project Implementation Plan

MAP SECTION

IBRD 26479

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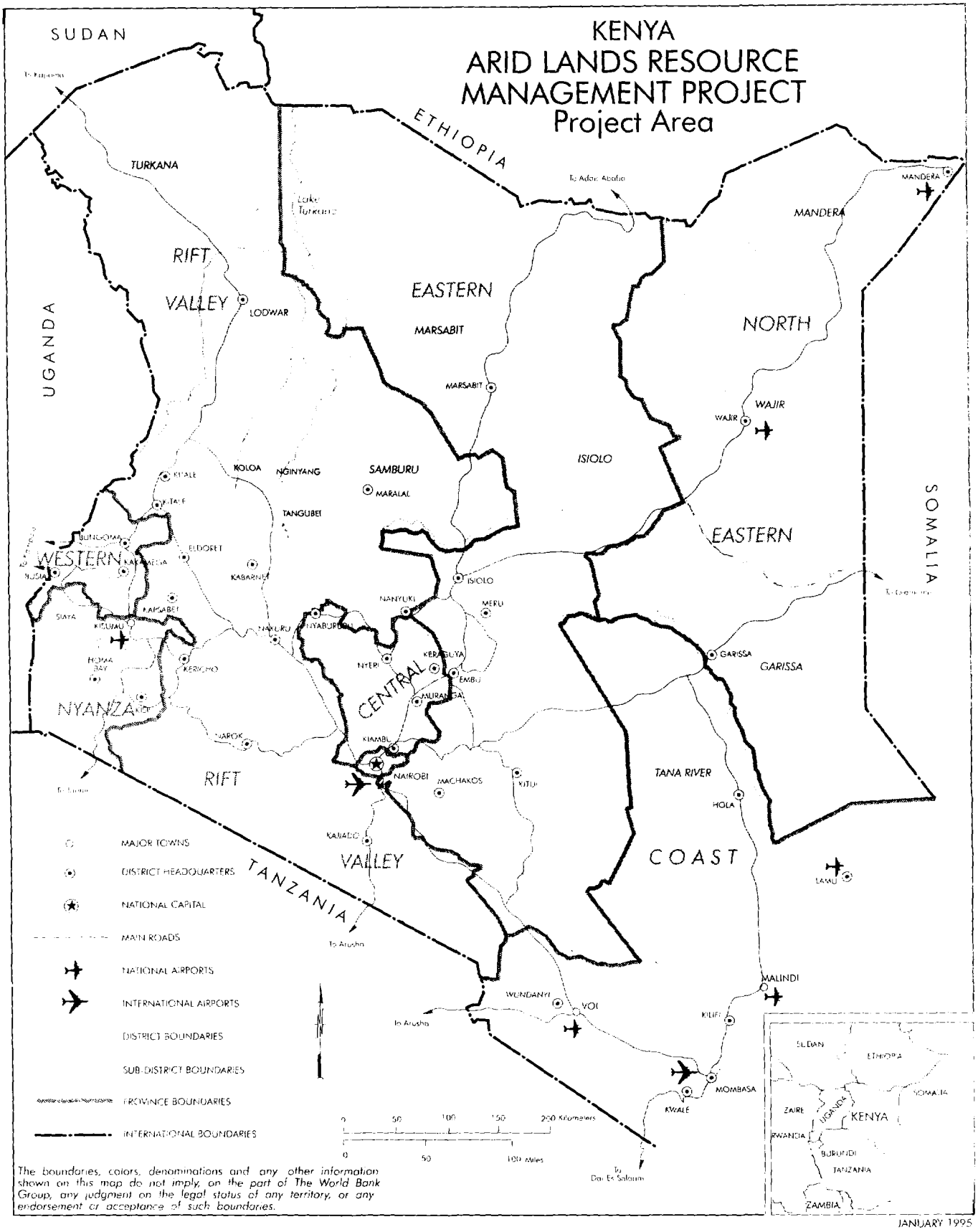
ARID LANDS RESOURCE MANAGEMENT PROJECT
Project Area



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JANUARY 1995

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