CHAPTER III

HISTORICAL BACKGROUND OF THE DEVELOPMENT OF ARID AND SEMI-ARID LAND (ASAL) OF KENYA

KENYA – A PROFILE

Kenya is an independent republic within the Commonwealth Nations. It is situated in the eastern part of Africa astride the equator. It is bordered on the north by Ethiopia and Sudan, on the West by Uganda, on the South by Tanzania and on the east by Somalia and Indian Ocean.

For the purpose of administrative efficiency and convenience, Kenya has been divided into eight provinces with Nairobi area given the status of a Province. Nairobi exclusive, each of the Provinces is further subdivided into Districts which vary in number and size. In total, there are 41 Districts. In each District there are divisions with variations in number and size. The Divisions have been subdivided into locations and similarly each location subdivided into sub-locations.

Kenya occupies an area of 582, 546 sq. kilometers in total. All development plans have encompassed and empha-
sized mixed economy with a sizeable private sector and substantial foreign investment.

PRE-INDEPENDENCE INITIATIVES AND AGRARIAN TRANSFORMATION

Kenya remained under the British rule for a period of 70 years (1893-1963). Prior to the colonial period, the ecology of drought tracts or Arid and Semi-Arid lands (ASALs) of Kenya was limited in exploitation. However, the process initiated by the white settlers of setting aside land for European Settlement resulted in the movement of the indigenous populations into lands which had not been utilized during the Pre-colonial period, and whose development potential was low. Large tracts of land were lost to pastoralists, particularly in the Rift Valley Province. The Masai were moved from Uasin Gishu Plateau which was well watered, to the drought tract areas of Narok. The Masai people also lost significant parts of what is today Laikipia District and parts of Nakuru. Other people in today's Rift Valley were debarred from the grazing areas which had been an integral part of their traditional production systems.

Settled people of the Eastern Highlands, whose mixed agricultural and Pastoral livelihood was based on the surrounding Arid and Semi-Arid areas, were deprived of their use. The increase in African Population also led to more pressure for settlement in the drought Prone areas, particu-
larly Machakos and Kitui lowlands. The creation of National Parks had a similar effect and pushed many lowlands and coastal area inhabitants into more arid land.

The colonial administration, apparently convinced that traditional practices were chaotic and primitive, sought to introduce rational development. Their intent was to integrate the high potential areas into the world monetary market economy. Thus the best land was totally alienated for farming and commercial livestock production, depriving the pastoralists of their essential dry season pastures.

The combined impact of land alienation and population growth by 1930s led to overcrowding in the areas left to the indigenous population. The pressure on land resulted into serious deterioration of the land resources. Administrative statutes were imposed, to reduce the military power of the indigenous people, to curtail traditional movements (both trans-humance and nomadism), and to end traditional livestock trading.

The problem of drought tracts did not become a policy issue until 1946 after three years of serious drought, when,
in response to the call by the administrators in these areas for measures to arrest the degradation of the environment, the colonial government committed funds to soil conservation. Much of the soil conservation work was carried out by compulsory labour. The deterioration of drought tracts was attributed to overstocking and the colonial authorities therefore also enforced destocking regulations. The district-based local Native Councils were given Powers to raise revenues for road construction and to provide other social facilities and services. They were also empowered to regulate forest and land use. Implementation of these policies led to the movement of a considerable number of families from designated forest zones in the wetter Arid and Semi-Arid Land areas to the drier areas. In a parallel development, agricultural schools were established at Kabete and Bukura (both institutions are situated in areas with a benign climate and precipitation, and thus the dominant pattern of training for higher rainfall agricultural production was set).

The Pastoralists and semi-sedentary People were considered to be not only a danger to the environment, but also a threat to the economy of the adjacent European ranches, many of which had been established after the crop farming
disasters of the depression years. More significantly, the imposition of veterinary rules and regulations to protect European ranchers limited the circulation of breeding stock among the various people with deleterious consequences for their livestock.

In addition to the local 'Native Councils, the following institutions were formed to deal with the problem of resource development in these areas:

(i) **African Settlement Board**

The Board was established in 1945 to address the problem of overpopulation in African areas. This Board was replaced by the African Land Development Board (ALDEV) in 1946.

(ii) **African Land Development Board (ALDEV)**

The African Land Development Board was established with the objective of starting the implementation of some basic

infrastructure (roads and water), Project Planning and Coordination as well as financial control of development funds in African areas. This was the first strategy for the development of Arid and Semi-Arid Land areas of Kenya.

The African Land Development Board (ALDEV) based its development strategy upon the rehabilitation of the degraded lands. Research was carried out to provide techniques for improvement of grasses and browse of drought prone areas. Land farming improvement was also emphasized together with bush control. The research was far reaching and involved the development of drought-resistant crops, the techniques of pan and sub-surface dam construction and the whole range of animal disease control.

In its development programme, the African Land Development Board concentrated on establishing new settlement schemes in the more humid drought tract areas, grazing control and its attendant forced destocking, afforestation of steep slopes, and gully erosion control. The Department of Agriculture was responsible for the implementation of the various African Land Development Projects. Field Programmes depended on the mobilisation through administrative structure of the drought tract area communities who were required
to carry out defined tasks." "Three irrigation projects were initiated in the dry lands. These were, Mwea-Tabere, Tana and Perkerra - Baringo, essentially to create work for nationalist political detainees (ALDEV, 1956; Ominde 1971)." The African land Development Board Programme continued through the Swynnerton Plan period (1955-1960) by which time the political climate was so hostile to forced labour that most of the field projects had to stop. With the advent of independence the communities abandoned the projects.

POST - INDEPENDENCE INITIATIVES

In an effort to address the problems of drought tract areas, the independent Government of Kenya established the Range Management Division in the Ministry of Agriculture in 1963. This was meant to deal with the establishment of


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ranges and their management. Similar sections were established in the Ministry of Water Development, Ministry of Lands and Settlement, and the establishment of Agricultural Finance Corporation represent and attempt to address the needs of these areas. The role played by these institutions was insignificant in nature and funding and as a result, no major moves towards the formulation of strategies to address the drought tract area problems were reached.

After independence, the Government's effort was concentrated on the development of resources within the rain assured high and medium potential areas. It was expected that the high growth rates in rain assured high and medium potential areas would trickle down to benefit those who lived in the dry marginal areas. This "Trickle Down Approach" to development produced unsatisfactory results. There existed great income disparities between inhabitants of the drought tract areas and those of the rain assured high and medium potential areas. Arid and Semi-Arid Land population were disadvantaged in terms of social and economic infrastructure. At the same time, population pressure on land in the rain assured high and medium potential areas compelled people to migrate to lower potential areas. This situation continued, and in 1965, a more positive policy
emerged. The UNDP-FAO East African Livestock Survey, Published in 1965, provided convincing arguments in favour of treating the Arid and Semi-Arid Lands as areas of substantial potential rather than merely as areas with overstocking problem. The Government of Kenya accepted the basic argument, and its commitment is reflected in development projects and the high priority indicated in the national development plans since 1966. The Government established area based programmes on Pilot basis, with the objective of testing regional planning and project implementation.

ESTABLISHMENT OF SPECIAL RURAL DEVELOPMENT PROGRAMMES (SRDP) 1968-72

The Special Rural Development Programmes (SRDP) were area based programmes covering one division of a district. These programmes were Co-ordinated by Local Programme co-ordinators with a heavy donor support in terms of funding and provision of technical assistance and personnel. They were implemented in the following divisions:
Table 3.1

Districts and Divisions under Special Rural Development Programme (SRDP)

<table>
<thead>
<tr>
<th>Si.No.</th>
<th>District</th>
<th>Division</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Embu</td>
<td>Mbere</td>
</tr>
<tr>
<td>2</td>
<td>Kakamega</td>
<td>Vihiga</td>
</tr>
<tr>
<td>3</td>
<td>West Pokot</td>
<td>Kapenguria</td>
</tr>
<tr>
<td>4</td>
<td>South-Nyanza</td>
<td>Migori</td>
</tr>
<tr>
<td>5</td>
<td>Kwale</td>
<td>Kwale</td>
</tr>
</tbody>
</table>

The local community participation in these programmes was very low. Sustainability of the completed projects became a problem since institutions to take them over had not been established.

In 1974, the first exercise to write District Development Plans was started. District Development Officers were posted in districts with the objectives of enhancing regional district planning. The Arid and Semi-Arid land area development needs were not addressed to in the District Plans. A marginal lands study was started in 1976, and presented its substantive findings increasing knowledge of Arid and Semi-Arid Lands. In 1977 the Government of Kenya
commissioned Pre-investment studies in some of the dry districts of Kenya viz., Machakos, Kitui, Embu and Baringo. These studies established base-line data forming the frame under which drought prone area distructs could be developed. To implement the findings of these studies, an Arid and Semi-Arid Land (ASAL) section was established in the Ministry of Agriculture in 1977. In order to develop a coordinated approach, the Government appointed an interministerial Task Force in 1978 to define the issues involved more clearly.

DRYLAND RESEARCH

Since the amendment of the Science and Technology Act, research institutions whose mandates cover the dry areas come under the umbrella of Kenya Agricultural Research Institute (KARI).

Katumani National Dryland Fanning Research Station (NDFRS) is responsible for the development of crop production and soil and water management.

Kiboko Range Research Station (RRS) has the mandate for the development of livestock production and range management.
The National Dryland Farming Research Station has released a number of improved varieties of Cereals and legumes including Katumani and Makueni Maize, but these have yet to be widely adopted by the farmers because, with the exception of maize, the seed is not really available. Farmers prefer to save their own seed.

THE COMMENCEMENT OF FIRST GENERATION OF ARID AND SEMI-ARID LAND (ASAL) PROGRAMME

Using Pre-investment Studies as a guideline, the Government of Kenya, in 1979 produced a document entitled "Arid and Semi-Arid Lands Development in Kenya - A framework for implementation, programme planning and evaluation 1979". The aim of this document was to provide guidance to Non-government Organisations, (NGOs) and donors on Government objectives and strategies for the development of drought tracts. Based on Agro-Ecological Zoning Criteria (AEZ) as defined by Braun and Associates, (1982) and the Kenya Atlas (1970), four Arid and Semi-Arid Land (ASAL) agro-ecological zones (AEZ) have been delineated. The area of each zone and

relative rainfall evapo transpiration rates are as follows:

<table>
<thead>
<tr>
<th>AEZ</th>
<th>r/EO</th>
<th>Area (km²)</th>
<th>% Country Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>IV - Semi humid</td>
<td>40 - 50</td>
<td>27,000</td>
<td>5</td>
</tr>
<tr>
<td>V - Semi Arid</td>
<td>25 - 40</td>
<td>87,000</td>
<td>15</td>
</tr>
<tr>
<td>VI - Arid</td>
<td>15 - 25</td>
<td>126,000</td>
<td>22</td>
</tr>
<tr>
<td>VII - Very Arid</td>
<td>&lt; 15</td>
<td>226,000</td>
<td>46</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>466,000</td>
<td>88</td>
</tr>
</tbody>
</table>

Arid and Semi-Arid Land Areas cover 51 million hectares or 88% of Kenya’s land area. These areas are distributed among 22 districts when a criteria of greater than 30% Arid and Semi-Arid Land (ASAL) is used for selection.

Since the risk of crop failure in zone IV is less than 25% compared with the markedly higher risks in zones V, VI and VII, it could be considered as strictly not falling within this norm, but because of the similarity of its farming system and cropping methods to zone V, based on a maize/grain/legumes combination, it has nevertheless been included as one of the Arid and Semi-Arid Land zones for the purposes of this study. The reason for this is that while the exclusion of zone IV would only reduce the Arid and Semi-Arid Land area by 5%, it would reduce the Arid and Semi-Arid Land population significantly as well as the grain production of these areas.

Arid and Semi-Arid Land areas including Agro-ecological zone (AEZ) IV cover 51 million hectares or 88% of the total country area and 40 million hectares for Agro-ecological zones V to VII. Growing conditions, within Lliiææ orcan arc affected by altitude, rainfall, and temperature. There are
four categories of districts depending on the degree of aridity as shown below.7

ASAL DISTRICTS IN KENYA

<table>
<thead>
<tr>
<th>CATEGORY A (100% ASAL)</th>
<th>ASAL AREA</th>
<th>PROVINCE</th>
<th>% TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Isiolo District</td>
<td>Eastern Province</td>
<td>)</td>
<td></td>
</tr>
<tr>
<td>2. Marsabit</td>
<td>Eastern Province</td>
<td>)</td>
<td></td>
</tr>
<tr>
<td>3. Garissa</td>
<td>North-eastern Province</td>
<td>62</td>
<td></td>
</tr>
<tr>
<td>4. Mandera</td>
<td>North-eastern Province</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Wajir</td>
<td>North-eastern Province</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Turkana</td>
<td>Rift Valley</td>
<td>)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CATEGORY B (85-100% ASAL)</th>
<th>ASAL AREA</th>
<th>PROVINCE</th>
<th>% TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Kitui District</td>
<td>Eastern Province</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Tana River District</td>
<td>Coast Province</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Taita Taveta District</td>
<td>Coast Province</td>
<td></td>
<td>25</td>
</tr>
<tr>
<td>4. Kajiado District</td>
<td>Rift Valley Province</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Samburu District</td>
<td>•Rift Valley Province</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CATEGORY C (50 – 85% ASAL)</th>
<th>ASAL AREA</th>
<th>PROVINCE</th>
<th>% TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Embu District</td>
<td>Eastern Province</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Machakos District</td>
<td>Eastern Province</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

7 Kenya - Technical Paper No.1, Arid and Semi-Arid Lands Description, p.4.
3. Meru District  Eastern Province  
4. Kilifi District  Coast Province  
5. Kwale District  Coast Province  
6. Baringo District  Rift Province  
7. Laikipia District  Rift Province  
8. West Pokot District  Rift Province  

**CATEGORY D (30–50% ASAL)**

1. Lamu District  Coast Province  
2. Narok District  Rift Valley Province  
3. Elgeyo Marakwet  Rift Valley Province  

MAP III.3
Kenya-ASAL Districts
CLIMATE

Arid and Semi-Arid Land Areas are presently defined as having rainfall to evapotranspiration ratio of less than 50%. They are subject to erratic rainfall both within and between seasons and high intensity storms which produce considerable run-off in the absence of adequate tree or bush cover or suitable structures. Approximate rainfall expectancy in each of the zones, IV-VII is tabulated below:

Table 3.3
Rainfall expectancy in mm (60% probability level)

<table>
<thead>
<tr>
<th>AEZ</th>
<th>Average Annual Rainfall (mm)</th>
<th>1st Season</th>
<th>2nd Season</th>
</tr>
</thead>
<tbody>
<tr>
<td>IV</td>
<td>700 - 850</td>
<td>250 - 350</td>
<td>250 - 300</td>
</tr>
<tr>
<td>V</td>
<td>550 - 700</td>
<td>150 - 300</td>
<td>150 - 200</td>
</tr>
<tr>
<td>VI</td>
<td>300 - 550</td>
<td>100 - 200</td>
<td>50 - 150</td>
</tr>
<tr>
<td>VII</td>
<td>200 - 300</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Kenya - Technical Paper No.1, ASALS, Description, p.4.

Average rainfall figures are deceptive in these circumstances as there tends to be limited number of years well
above average whilst the 60% probability is well below. This situation is further complicated in Kenya because average annual rainfall figures disguise modal rainfall allowing two potential crop seasons in Eastern Kenya and at the coast, whilst reflecting monomodal rainfall, with a slight mid-season decrease in precipitation in, and west of, the Rift Valley.

The climate in Arid and Semi-Arid Land is generally hot and average temperature is above 160°C, [sic] the altitude is below 200 M., the greater part of the Arid and Semi-Arid land area 89% lies at an altitude not exceeding 1200 m, annual evapotranspiration is above 2000 mm and annual rainfall between 150 mm and 1000 mm, depending on the zones.

Thus the Kenya Government document Produced in 1979 was important in drawing the attention of donors to the Arid and Semi-Arid Land Projects. Though it did not specify, it indicated that each donor was to go to a specific district.

The objectives of the first generation of Arid and Semi-Arid Land Development Programme were ranked in 1979 as:

i) Development of human resources;

ii) Exploitation of Productive Potential;

iii) Resource Conservation, and

iv) Integration with national economy.

This ranking of Arid and Semi-Arid Land development Priorities remains valid and clearly recognises that the central theme in the long term development of these areas is the development of people. It is also important to emphasis that the 1979 Arid and Semi-Arid Land Strategy was meant to create a framework for channeling resources to areas which could not get them under normal economic criteria. The main programme approach was to be district based integrated development. The level of government which was relevant therefore was the district. This Arid and Semi-Arid Land district-based approach to its programme is in accordance with the Kenya Government's district Focus (DF) policy in which responsibility for government operations in planning and budgetary matters have been increasingly devolved to the districts. It is important to note that many of the aspects both District Focus (DF) and the current Arid and Semi-Arid
Land development Programme have been developed through Machakos integrated Development Project (MIDP), and Arid and Semi-Arid Land project funded by the E.E.C from 1977 (Para. 18).

It was through the Machakos Integrated Development Project that Arid and Semi-Arid Land programmes were brought in the portfolio/of the Ministry of Planning (MP). The Ministry of Planning together with the Ministry of Finance (MOF) with which it has often been merged, and the Office of the President (OP) constitute the three non-sectoral ministries of the Government of Kenya. As Arid and Semi-Arid Land development Programme is multifaceted, it was clear and preferable that, in the organizational structure of the government, these should be under the tutelage of a non-sectoral Ministry and the experience of Machakos Integrated Development Project acted as a catalyst in bringing the programme under the Ministry of Finance and Planning.  


The need and determination for the development of Arid and Semi-Arid Land areas of Kenya is cited in various speeches and written literature by administrators, planners, academicians, politicians, just but to mention a few. The late Ouko, Minister for Economic Planning, in his inaugural speech on the development of ASAL delivered at Jacaranda Hotel on 9th May 1979 stated:

Where the Plan indicates the need for accelerated development in Arid and Semi-Arid Lands, you may be assured that this has not been dealt with lightly, but with considered judgments as well as expressing our aspirations for the people of these areas. The case for accelerated development rests on two main contentions. The first is that if the low level trap of poverty is to be broken in these difficult environments, Government must find ways of providing improved opportunities for productive employment by increasing the efficiency of the existing technologies and by developing new technologies especially adapted to the resource base. The other contention is that, without further attention to the conservation of our natural resources, we are faced, with the increasingly likely and daunting prospects of the degradation of our land. ... even the economist to-day tries to incorporate non-financial aspects in his equation of costs and benefits.

The Kenya Government policy Paper emphasizes the need for the development of drought tract areas and states,
'About 80 per cent of Kenya's land area is arid and Semi-arid. This area supports 20 per cent of the country's people and half of its livestock. Arid and Semi-Arid Lands (ASAL) have fragile environments, subject to degradation as more people move into them from the overcrowded lands of medium and high potential. Yet these lands represent a potentially important resource which, if managed carefully, can help serve the income, employment and food self-sufficiency goals of this sessional paper". Kenya's sixth Five Year Plan states; "... a majority of the people living in these areas [ASAL] are pastoralists although semi-pastoral ... and farming communities exist as well. Some of these communities are recent immigrants from the more densely populated, high potential areas of the country. ... the new Arid and Semi-Arid Land (ASAL) Strategy will focus attention on self sustaining innovation and production activities in the small scale dry-land farming, irrigated agriculture and pastoral sub-sectors. This will in turn require support through specific policies and investments in production and physical and social infrastructures which will be necessary to overcome particular operational con-

strains in Arid and Semi-Arid Land areas.

As a manifestation of the importance the Government of Kenya attaches to the development of these areas, the Ministry of Reclamation and Development of Arid and Semi-Arid Areas and Wastelands was formed in May, 1989. Arid and Semi-Arid Land (ASAL) section in the Ministry of Planning and National Development was shifted and placed under the newly created Ministry.
