
**INSTITUTIONAL AND POLICY ISSUES RELEVANT TO
PASTORAL DEVELOPMENT IN KENYA**

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Abstract

Pastoral life is dependent upon and bound to livestock. Pastoralists operate in a fragile and precarious environment characterised, by long dry spells, interspersed with low and erratic rainfall. These factors, together with low soil nutrients and high temperatures limit the productive capacity of their key enterprise: livestock. Sustainable livestock production in pastoral areas of Africa, and particularly in Kenya, is made worse by the failure of institutions to guard against both poor governance and the articulation of development policies that are biased against pastoralism. Institutional failure in pastoral areas is depicted by, among other things, social and political marginalisation, economic stagnation, destitution and persistent social conflicts. Public policy should address these issues in order to develop a more secure system for the sustainable development of pastoral areas.

Several interventions have been carried in pastoral areas in an effort to improve the situation. However, most interventions in the Kenyan pastoral areas have been intermittent and sporadic in nature, often in response to crises such as drought, famine or such other disasters. Most of these efforts have been inappropriate and rather untimely, with unsatisfactory results. To mitigate against such frustrations, development of pastoral areas should adopt a more holistic approach that focuses on the root causes of constraints in the pastoral sector rather than merely attempting to 'treat' the symptoms. This would involve targeting the constraints arising from agro-ecological, political and socio-economic environments.

The solutions to these constraints should be practical, demand-driven, people-centred and backed by requisite policy instruments. However, the implementation of these strategies may be hindered by a number of factors such as: who will pay for the implementation of these solutions? Is the government willing to retract on the reform agenda in favour of pastoralists? Are the pastoralists themselves willing to improve their lot? This paper reviews various policy-oriented efforts with the aim of suggesting alternative approaches to enhance pastoral development in the country.

1.0 INTRODUCTION

1.1 Geographic description of the ASALs

Kenya's land mass occupies about 587,000 square kilometres of which 98 per cent is land while the rest is occupied by water bodies. On the basis of moisture index¹, Kenya's land mass can be broadly classified into seven agro-climatic zones (Table 1). According to this classification, the ASALs fall within zones IV to VII and occupy about 88 per cent of the total land area (RoK, 1991). This area is dominated by pastoral and ranch-based livestock production systems and game parks (Omiti, 2000a). The other 12 per cent of the land has a moisture index of over 50 per cent and is classified as high and medium potential lands (HMPLs). This area receives over 700mm of rainfall annually, which supports crop and dairy farming (Jaetzold and Schmidt, 1983).

Table 1: Agro-climatic zones of Kenya

Zone	Classification	Moisture index	Area (Km ²)	% country area
I	Humid	>80	5,870	1
II	Sub-humid	65-80	23,480	4
III	Semi-humid	50-64	41,090	7
IV	Semi-arid	40-49	27,000	5
V	Semi-arid	25-39	87,000	15
VI	Arid	15-24	126,000	22
VII	Very arid	<15	226,000	46
Total			587,000	100

Source: Peeler and Omoro (1997), RoK (1991).

Using the criterion of evapotranspiration being more than twice the annual rainfall in more than 30 percent of a district's total area, there are 26 ASAL districts² (Figure 1), which can be grouped into four major categories on the basis of the degree of aridity (Table 2).

Table 2: ASAL districts classified by degree of aridity

Category	Districts	% Total ASAL Area
A. 100% ASAL	Isiolo, Marsabit, Garissa, Mandera, Wajir, Turkana	62
B. 85-100% ASAL	Kitui, Tana-River, Ijara, Taita-Taveta, Kajiado, Samburu	25
C. 50-85% ASAL	Embu, Meru, Machakos, Mwingi, Makueni, Tharaka-Nithi, Laikipia, West-Pokot, Kilifi, Kwale, Baringo	10
D. 30-50% ASAL	Lamu, Narok, Elgeyo-Marakwet	3
Total ASAL		100

Source: Adapted from RoK (1991).

¹ Calculated as rainfall:evapotranspiration ratio (per cent).

² This figure is not static because more districts are still being created (due to political or administrative arguments).

Figure 1 Pastoral Districts of Kenya

(see attached document from microsoft word)

1.2 Human Population

About 9.5 million people lived in ASAL districts in 1999 (CBS, 2001). While the total population has increased slightly from eight million in 1989, its proportion has remained almost unchanged at 33.4 per cent and 33.9 per cent of the national population in the 1989 and 1999 census, respectively.

1.3 The ASAL Environment

1.3.1 Climate and Rainfall

A major characteristic of the ASALs is that they are generally hot and dry, with low and erratic rainfall that varies widely across space and over time (Kariuki et al., 1996). Rainfall is bimodal in pattern with an expectancy of less than 500mm in the first and second seasons (Table 3). Such rainfall cannot support arable farming. Livestock production plays a bigger role over crops in ensuring household food security (Mukhebi et al., 1991; Scoones, 1992).

Table 3: Rainfall expectancy in ASALs at 60% probability level

Agro-climatic Zone	Average annual rainfall (mm)	1st Season	2nd Season
IV	700-850	250-350	250-350
V	550-700	150-300	150-200
VI	300-550	100-200	50-150
VII	200-300	<100	<50

Source: RoK (1991)

1.3.2 Soils

The soils in the ASALs are highly variable. They are generally of light to medium texture with low fertility, cation exchange capacity and subject to compaction and capping and are generally susceptible to erosion. Only a few areas have volcanic soils and alluvial deposits, which are suitable for cultivation. Heavy clays also occur, but their cultivation is difficult because of their poor workability as well as problems of salinity and sodicity (Jaetzold and Schmidt, 1983).

1.3.3 Water Resources

The ASALs have four major water catchments. These comprise the Kerio, Ewaso Nyiro, Tana and Athi river systems that emanate from the highland massif (RoK, 1991). The main rivers are subject to high and low seasonal flows which show increasingly dramatic variations and silt loads as cultivation and deforestation increase in the highlands. With the exception of Tana River, the volume of water available is too small for extensive irrigation. Surface water resources occur for a short period after the rains.

1.3.4 Vegetation

Much of the ASALs is covered by grass and scrubland (Jaetzold and Schmidt, 1983). Themeda and Acacia are, respectively, the predominant grass and tree species. Vegetation varies widely both in space and time, and is closely dependent on rainfall. Reliable sources of grass with high productivity are small in area and widely scattered. These areas form the dry season grazing for pastoralists. The woody vegetation is also considerably influenced by rainfall variability, but the density of tree and bush cover is low. Evergreen forests occur in a few places, particularly along the rivers and on hills.

1.3.5 Economic Activities

With the exception of a few areas, the low and erratic rainfall of the ASAL districts is rarely enough to support crop production. Consequently, the ASAL economy is dominated by pastoral and ranch-based livestock production. Small-scale crop production is practised along the rivers and on elevated hills, where the weather permits. Other economic activities include trading in town centres, tourism and fishing.

To date, accurate livestock data are generally unavailable because there has been no systematic national livestock census in the last twenty years. In addition, most of the crop production in the ASALs is for household consumption and little statistics, if any, are regularly collected in trading markets. The available data are from the annual reports of the Ministry of Agriculture and Rural Development, which are based on informal estimates by field staff. Table 4 shows the livestock population by province.

Table 4: Livestock population and distribution in Kenya in 1993

Province	Cattle (Million)			Sheep ('000)			Goats ('000)		
	Beef	Dairy	Total	Hair	Wool/ Meat	Total	Meat	Milk/ Meat	Total
Central	0.079	0.809	0.905	240	238	478	213	18.3	231
Coast	0.073	0.045	0.118	395	-	395	914	0.8	915
Eastern	1.498	0.274	1.713	1,013	35	1,048	2,354	1.6	2,356
Nairobi	0.012	0.014	0.021	8.3	1.2	10	12	0.3	12
North Eastern	0.825	0.000	0.93	421	-	421	814	-	814
Nyanza	2.089	0.150	1.65	736	0.8	737	876	0.5	876
Rift Valley	3.358	1.666	4.966	4,098	469	4,567	4,700	10	4,710
Western	0.925	0.101	0.953	172	-	172	160	-	160
Total	8.859	3.059	11.918	7,083.3	744	7,828	10,043	31.5	10,074

Source: Animal Production Division, Annual Reports

Most of the livestock is kept in the Eastern, North Eastern and Rift Valley provinces, a large part of which comprises the ASALs. It has been estimated that over 70 per cent of the national livestock herd (including camels and donkeys) is kept in the ASALs (Table 5). Thus, the ASALs play a significant role in livestock production to meet human needs. This role is likely to increase as land in the high and medium potential areas continues to decrease with increasing population.

1.4 Some Features of Pastoralism

The ASALs are predominantly occupied by pastoralists, who fall into two major ethnic groups: the Cushites and the Nilotes. The cushitic group includes the Borana and Orma who specialise in cattle and shoats, the Gabbra and the Rendille who mainly keep camels and the Somali who rear mainly camels and shoats. The nilotic group comprises the Maasai specialising in cattle and sheep and the Pokot, Samburu and Turkana mainly keeping cattle (Table 6).

Pastoralists are people who derive most of their subsistence and income from keeping livestock under natural pastures, with humans and livestock co-existing in a symbiotic relationship (Sandford, 1983; Koncziaki, 1978). The success of pastoralism stems from well-adapted principles and strategies designed to overcome the harsh and variable conditions dominant in arid areas (Niamir, 1991). Accordingly, there are three major forms of pastoralism: nomadism, transhumance and agro-pastoralism (Azarya et al., 1999).

Table 5: Estimated livestock population ('000) in ASAL districts in Kenya in 1994

District ¹	Zebu Cattle	Dairy cattle	Sheep	Goats	Camels	Donkeys
Baringo	325.48	108.25	238.09	703.00	8.38	56.85
Embu	139.75	51.97	34.97	144.88	Na	Na
Garissa	375.35	0.15	50.00	238.00	73.32	3.65
Isiolo	193.50	0.50	213.00	188.00	33.00	0.40
Elgeyo Marakwet	178.86	57.90	214.10	160.55	0.01	6.30
Kajiado	966.39	100.00	96.34	948.11	0.29	221.00
Kilifi	223.33	23.98	23.24	199.39	0.24	0.68
Kitui	165.65	0.65	48.05	345.01	Na	40.20
Kwale	231.62	1.94	67.80	134.69	Na	Na
Laikipia	231.62	31.20	228.00	151.00	2.3	4.57
Lamu	31.50	2.06	8.75	38.40	Na	Na
Machakos	280.13	38.93	113.57	250.52	Na	2.74
Makueni	208.30	25.20	51.00	216.00	0.02	3.35
Mandera	171.63	0.00	160.08	242.08	15.54	3.72
Marsabit	152.40	0.05	321.70	481.54	123.67	24.70
Meru	158.69	100.83	92.81	72.34	Na	0.39
Mwingi	239.90	0.09	35.00	370.58	Na	36.10
Narok	931.26	60.04	1512.10	944.78	0.03	224.70
Nyambene	108.67	23.15	62.70	120.48	Na	Na
Samburu	121.74	2.43	288.16	347.13	15.36	8.36
Tharaka Nithi	125.21	32.21	44.5	165.21	Na	4.51
Tana River	480.84	0.00	252.70	383.75	Na	10.50
Taita Taveta	145.50	15.00	40.00	160.00	0.02	0.30
Turkana	153.35	0.00	316.96	950.88	63.15	28.90
West Pokot	222.80	0.90	230.00	194.55	0.8	42.00
Wajir	273.48	0.00	210.61	333.88	233.48	7.00
Totals in ASALs	6836.95	677.43	4954.23	8484.75	569.61	730.92
National Totals	9161.37	3069.29	7871.45	10072.3	569.61	783.78
% in ASALs	74.60	22.20	74.90	84.20	100.0	95.50

Source: Mogoa and Nyangito (1999)

Na - Not Available

¹Some of the ASAL districts have been split.

Table 6: Major pastoral groups in Kenya

Pastoral Group	Ethnicity	Predominant species kept
Borana	Cushitic	Cattle, Shoats
Gabbara	Cushitic	Camels
Orma	Cushitic	Cattle, Shoats
Rendile	Cushitic	Camels
Somali	Cushitic	Camels, Shoats
Maasai	Nilotic	Cattle, Sheep
Pokot	Nilotic	Cattle
Samburu	Nilotic	Cattle
Turkana	Nilotic	Cattle

Source: Azarya et al. (1999).

1.4.1 Nomadism

Nomadism is a pastoralist strategy characterised by the movement of people and their livestock from place to place in search of pasture and water resources. Nomadic pastoralists therefore have no permanent abode. Seasonal livestock migration follows relatively well-defined traditional stock routes that avoid disease vectors such as tsetse flies and ticks or social conflicts with other communities.

Due to their nomadic nature, the low and erratic rainfall, nomadic pastoralists mainly depend on livestock such as cattle, goats and camels for their survival. Their major food components are milk, meat and blood. Since they do not cultivate any crops, they often maintain a clientilistic relationship with crop farmers who provide them with food crops in exchange for animals, animal products or cash. The degree of exchange however depends on the interaction and existing links with crop growers (Roderick, 1995). Examples of nomadic pastoral tribes in Kenya include the Gabbra, Rendille, Samburu and Turkana.

1.4.2 Transhumance

This mode of production is more of a survival strategy with some semi-permanent homesteads where the old, young, sick and the disabled people and some animals stay while the rest of the family moves with livestock far and wide in search of pasture and water. Livestock are split into several herds, each of which is pastured in vegetation zones that most economically support it (Soper, 1986). These people also practise relational herding between close relatives. This group sometimes does some subsistence farming in areas where weather permits. Examples of transhumant pastoralists in Kenya include the Borana, the Orma and the Somali.

1.4.3 Agro-pastoralism

Agro-pastoralists are nearly sedentary (i.e. settled) and are generally less severely affected by the vagaries of weather and other forms of insecurity relating mainly to livestock theft and land utilisation. However, they experience incessant conflicts arising from crop-livestock-wildlife interactions and from other sedentary communities. Compared to the other two pastoral groups, agro-pastoralists enjoy considerable security of tenure. This group often keeps smaller livestock herds that are usually grazed on communal land.

Besides livestock, agro-pastoralists cultivate a diverse variety of drought tolerant crops such as millet and pulses. However, crop yields are usually low and variable depending on

the level of rainfall and soil fertility. More often than not agro-pastoralists experience high crop losses. Agro-pastoral communities in Kenya include the Maasai and the Pokot.

1.5 Significance of Pastoral Development

As mentioned in the fore-going sections, pastoral districts support about 30 per cent of Kenya's human population. They also host about 70 per cent of the national livestock herd, thus making them the major meat producing areas of Kenya. The annual slaughter from pastoral livestock has been estimated at about 1.6 million tropical livestock units (TLUs) contributing between 11 and 14 per cent of the countries' gross domestic product (GDP) (Nyangito and Omiti, 2000). Thus, developing the pastoral economy is critical to poverty reduction in Kenya. Developing the ASALs is also necessary to enhance their contribution to the country's demand for livestock products. It is estimated that the current per capita consumption of livestock products is 9-10kg beef, 2kg sheep/goat meat and 125kg and 19kg of marketed milk in urban and rural areas respectively (MoALDM, 1995). Most of these products come from the ASALs. The contribution of the ASALs to the country's economy is expected to increase with increasing population (especially in the high and medium potential areas), income and urbanisation. In addition, the continued subdivision of group and cooperative ranches as well as the financial unviability of a majority of company and ADC ranches mean that pastoral livestock will remain the most important source of meat in Kenya.

Over the years, however, pastoral areas have not received adequate attention from both pre- and post- colonial governments, to a point that pastoralists feel neglected and abandoned. This scenario is however not unique to Kenya. Pastoralists, the world over, have often been brought to bear the vagaries of political and economic neglect by their governments (RWA International, 2000). In the case of Kenya, this neglect has partly been contributed by the failure of governance and institutional structures to engender pro-pastoral policies in the mainstream socio-economic and political agenda and partly by the social and environmental characteristics unique to pastoral areas.

Pastoralism has been shown to be the most efficient means of production in the arid areas of Africa (Roderick, 1995; Bekure and de Leeuw, 1991) and, if enhanced, can be used to meet the growing demand for livestock and livestock products. However, lack of external support has left the pastoralists unchanged in terms of production techniques and orientation, leading to high production and transaction costs. In addition, lack of attention at the

national, regional and international levels has left the pastoralists reeling under conflicts, poverty and economic stagnation.

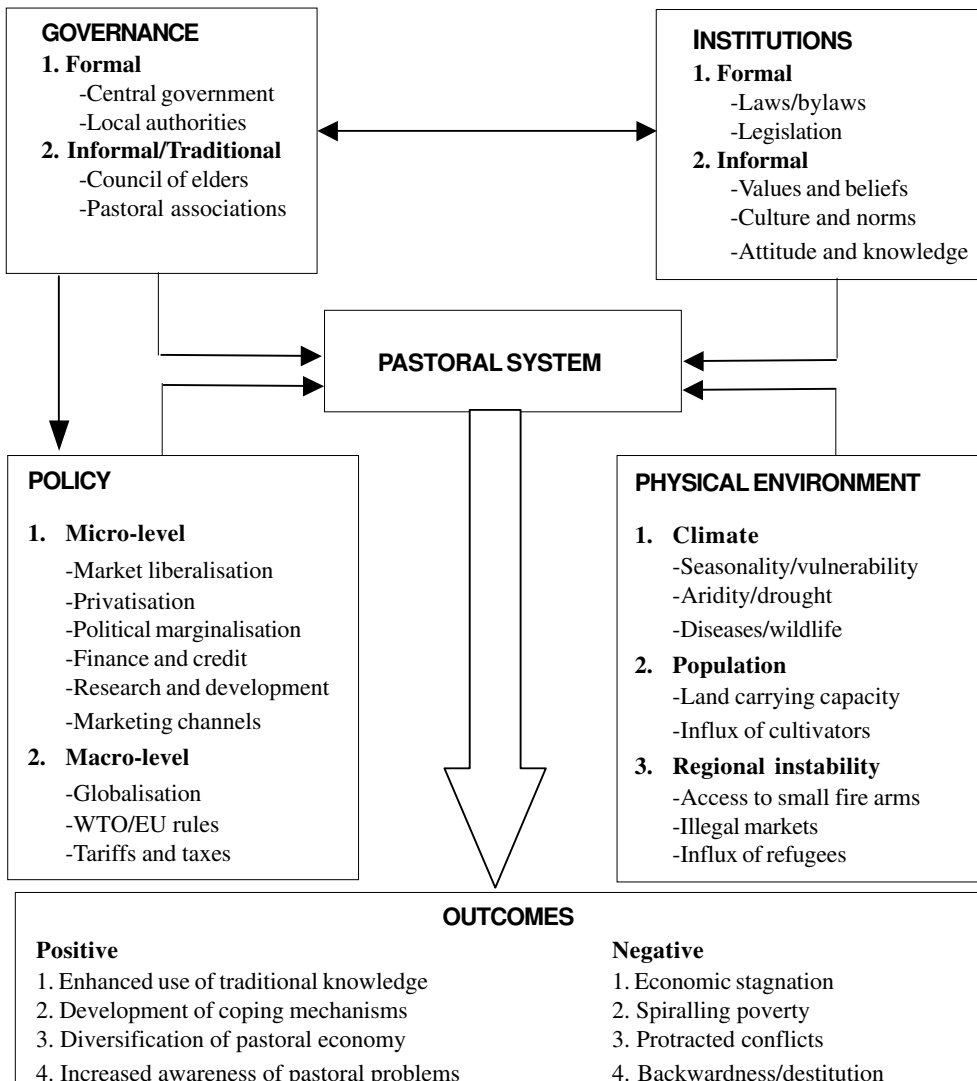
This paper focuses on how institutions, governance and environmental constraints interact to influence pastoral development in Kenya. Owing to the similarities of pastoral production systems in terms of culture, socio-economic and environmental characteristics, this approach can be extended to other pastoral economies in the rest of Africa. The objective of this paper is to use the theory of institutions and governance to explain and suggest remedial measures to enhance pastoral development. The premise of this discussion is that institutional failure, poor governance and globalisation have exacerbated the poverty, conflict and economic stagnation that is experienced in pastoral areas. The paper supports the hypothesis that strengthening the institutional framework will lead to development and articulation of policies that are both appropriate and conducive to the development of a vibrant pastoral economy in Kenya.

2.0 INSTITUTIONAL AND POLICY SETTING

2.1 Conceptual Framework

Various interrelationships between institutions, governance, policy and the bio-physical environment interact to affect the operations of a production system as illustrated in Figure 2. Understanding of these interactions is important to identify casual factors of the negative outcomes as well as the entry points for direct and indirect intervention programmes to mitigate against such outcomes.

Figure 2: Impact of institutional failure on the pastoral system in Kenya: A contextual framework



Source: Adapted from Omiti et al, 2000.

Governance involves the process of making authoritative decisions as to who gets what, when and how (Nwabuzor and Mueller, 1985). North (1990) defines institutions as the "rules of the game", which include the rules that nurture, protect and govern operations in an economy. Governance structures enforce and protect institutions, while institutions create those governance structures. Thus, the two concepts are intimately related and synergistically work to reinforce each other. Policies are the guiding principles in the enforcement of institutions. A country's economic activities are guided by the set of policies that a country adopts, which in turn, are implemented within an institutional and governance context. The bio-physical environment, on the other hand, defines the physical boundaries or frontiers of production. This, together with governance and institutions simultaneously determine the performance, and thus the level of development, of an economy.

This study links institutional failure to poor governance in analysing the performance of the pastoral economy in Kenya. The study first "disaggregates" institutions, governance, policy and environmental components into their various constituent factors and evaluates how each has influenced the performance of the pastoral economy. Then the study "aggregates" these components in an effort to explain the outcomes of institutional failure in pastoral areas of Kenya.

2.2 Institutions

2.2.1 Formal Institutions

Formal institutions are defined as the laws set by government. These include laws and bylaws enshrined in the constitution and legislation or Acts of Parliament. Laws are distinguishable from rules in that they convey a greater compelling force of compliance (Nwabuzor and Mueller, 1985). While not attempting to revisit all the relevant sections of the Laws of Kenya³, two examples on how the formal institutions have adversely affected the pastoral economy are given below.

(a) Land laws

Kenya has had a dualistic system of land law since its independence in 1963. One system inherited from the British categorises land under Crown and Trust Land. The other one is

³There are more than 520 chapters (CAPs) in the Laws of Kenya, of which, close to 119 deal with issues relating to crop and livestock production and marketing.

the customary land law system, which is based on the socio-economic practices of the various tribes of Kenya. The Land Act (Cap 280) Laws of Kenya classifies all pastoral land under communal ownership whose use is governed by Customary Land Law. Under this law, every member of the community has an equal right of access and utilisation of land. No individual can own, buy or alienate the land (Jackson, 1992). The rights of access are governed by a range of social factors including kinship, ethnicity, status and residence that have been established historically as a result of alliance, collaboration and competition between groups (Hesse and Trench, 2000).

By holding land in common, individual herders have perhaps little incentive to limit the number of animals grazed on that land. Since the primary motive of the pastoralist is to keep as many livestock as possible, the utilisation of communal grazing land suffers from the phenomenon referred to as the 'tragedy of the commons' leading to overstocking and subsequent overgrazing due to the problems associated with rivalry and non-excludability of the grazing areas (Gryseels, 1988; Hardin, 1968; Roberts, 1963). In this regard, institutional failure allows people to extract private benefits from public goods, leading to land degradation and desertification (Runge, 1981).

Communal land tenure also fails to clearly define property rights. Communal land falls under the regime of common property resources (or public goods), which are goods that are used simultaneously or sequentially by different users because of difficulties in claiming or enforcing exclusive rights, or because they are so sparse or uncertain that it is not worth doing so (Cousins, 2000). This characteristic of communal land tenure has often led to ethnic and clan rivalry in the exploitation of communal grazing and water resources resulting in severe or fatal skirmishes amongst pastoral groups in Kenya.

The failure of the Land Act to clearly define property rights in pastoral areas has left a loophole for the elite from these areas to collude with government officials to heave off huge tracts of communal land for private use (Ntimama, 2000). This process of land grabbing is increasingly reducing the land resource available for pastoral use, particularly dry season grazing areas. This has heightened tension between the pastoralists and the new land owners. Under this scenario, the survival strategies and coping mechanisms of pastoralists are interfered with.

After realising the inconsistencies and sometimes contradicting laws governing land use in Kenya, the government has decided to embark on a comprehensive land reform in tune with other economic and political reforms. Consequently, a Land Commission (the on-

going Njonjo Commission) has been set up to solicit the views of the citizens concerning the nature of land policies that they would like to have. While it is too early to adjudge the kind of land reforms that this Commission is likely to recommend, the reform is likely to have far-reaching implications on land and related institutions given the current hue and cry going on in the country.

(b) Anti-corruption efforts

Although corruption has been recognised as a major hindrance to Kenya's economic development, no law has been enacted to curb it. And if the recent rejection of the Kenya Anti-Corruption Authority (KACA) Bill by Parliament is anything to go by, then Kenya's dream for a corruption-free society will take a long time to come true. As pertains to pastoral production, corruption is rife in the acquisition of trade licenses, payment of inflated export fees, utilisation of cess collected from livestock markets, etc. In many unreported cases, livestock traders also have had to bribe the police enroute to the market. These rent-seeking activities increase transaction costs in livestock marketing. It is expected that the much-publicised Economic Crimes and Ethics Bill and the setting up of an anti-corruption wing in the police force will offer some respite in the control of corruption.

2.2.2 *Informal Institutions*

Informal institutions are cultural in nature and are transmitted across generations as norms, values, beliefs and attitudes. These institutions not only guide social interactions but also define and protect culturally sanctioned property rights. Perhaps the most important institution with regard to the performance of the pastoral sector is the pastoralists' attitude towards livestock. Three factors come to mind, namely, conservatism, cattle-culture complex and interaction between pastoralists and cultivators.

(a) Conservatism

This attitude is reflected in the failure of the majority of pastoralists to dispose of their livestock even when the circumstances dictate that they do. This is because:

...traditionally, if you sell an animal it is considered that you are depleting or emptying the herd. Again, if you marry or sell outside, you are taking wealth outside...(Lodung'okol, 1999).

This attitude has always resulted in high livestock mortality during periods of prolonged drought. Furthermore, lack of a market-oriented production means that livestock are kept

mainly for subsistence and socio-cultural reasons and not necessarily for profit. In addition, the poor trade infrastructure in pastoral areas does not lend itself easily to pastoral production for trade. Conservatism is also seen in the failure of pastoralists to embrace change. The failure of pastoralists to adopt arable agriculture is seen to imply that:

[The pastoralist] is not unfamiliar with or averse to agriculture and he values the resulting produce, but his cultural values are all against it as an exclusive way of life... animals will always rank highest in his mind, so that when the opportunity comes he will return to herding...it will [therefore] take time and a basic change of outlook to turn the pastoralist into a steady farmer, even if the conditions for it as an assured way of life could be provided (Soper 1986).

(b) Cattle-culture complex

To the pastoralists, livestock are more than an economic asset. They are involved in all social interactions and provide a form of social insurance against emergencies and liabilities. Besides the economic function, livestock also serve to fulfil the pastoralist's social, emotional and spiritual needs. Pastoralists' deep liking for livestock is exemplified by the following observation:

Pastoralists believe that all livestock on earth, including those owned by other people, are theirs by right and that there is nothing wrong in going after them and taking them by force. Accordingly, a [pastoralist] must be prepared to die in pursuit of this belief... (Soper, 1986).

This attitude is believed to be one of the biggest factors contributing to livestock raiding among the pastoral communities.

(c) Relationship with cultivators

The importance of traditional institutions is clearly seen with respect to the socio-economic relationship of pastoralists and cultivators. The two groups have co-existed for a long time with the pastoralists supplying the cultivators with livestock and livestock products such as milk, meat and manure in exchange for cash, grain and stover. In some cases, pastoralists and cultivators share markets where they trade through the barter system. In some cases, the two groups have intermarried. However, the relationship between the two groups is increasingly becoming strained by partisan politics and erosion of traditional norms and values. This has resulted in perpetual antagonism between the two groups

e.g., between the Kisii and the Maasai along the Gucha-Transmara border, and the Pokomo and the Orma in Tana River district.

2.3 Governance

Governance, be it formal or informal, is largely exercised by the government. There are four important functions of government: to (i) enact binding rules, (ii) make policies, (iii) enforce the rules, and (iv) arbitrate disputes arising from the rules enacted. From the theory of political science, two broad forms of governance can be conceptualised, i.e., formal (modern) and informal (traditional) forms.

2.3.1 Formal System of Governance

The modern form of governance in Kenya is depicted by the central and local governments and their bureaucracies. At independence, Kenya adopted a centralised form of government with a three-tier structure comprising the executive, the legislature and the judiciary. A parallel local government was also created, but this was and still continues to be subordinate to the central government. All powers were vested in the central government, particularly the executive, which operated at the core of the state, leaving little or no power at the periphery. Coincidentally, pastoralists and most of the agro-pastoral communities inhabit the periphery. In some areas, there has been a total absence of government, save for chiefs and their assistants, but whose role is greatly undermined by the presence of parallel informal governance structures. In addition, there has been minimal presence of law-enforcement agents, particularly the police and the judiciary, in the ASAL areas.

Besides their inefficiencies, local authorities country-wide do not receive adequate funds from the central government, so that they undertake minimal development activities in their areas of jurisdiction. Their main role has been the perpetual exploitation of the people through rent seeking activities, particularly in the issuance of trade licenses, stock movement permits and allocation of commercial plots. While it has been noted that the cess paid to local governments is excessive (OAU-IBAR, 1999), much of it is misappropriated. The culture of land grabbing has seen several ranches and livestock holding grounds being sold off or awarded to people with economic or political clout. These factors have left the pastoral communities considerably disenfranchised and marginalised.

2.3.2 *Informal (traditional) System of Governance*

Pastoral communities have always practised the informal system of governance. In most of these communities, there is a council of elders, which deals with many aspects of social life governed by customary law, e.g., enforcing rules and arbitration. Very often, rules set by the council of elders are more binding to community members than those set by the central government. In recent times, however, the informal structures of governance in most pastoral communities have collapsed. For instance, in the Karamoja cluster, the youth no longer subscribe to the authority of the elders; they plan and execute livestock raids without the blessings of the elders (OAU-IBAR, 1999). The balance of power is increasingly being tilted in favour of the youth because they possess illegal firearms (Irungu, 2001; Waithaka, 2001). At the same time, externally introduced political and entrepreneurial opportunistic factors have interfered with the social organisation of pastoral communities. The resulting effect of the breakdown of traditional governance structures has been increased and uncontrolled livestock raiding with attendant loss of human life and property. Other effects of raids include reduced access to markets and grazing land and deterioration of welfare status. These effects have entrenched the destitution and poverty levels observed amongst the warring communities today. It has been shown that pastoral areas most susceptible to livestock raiding normally report the highest rates in child malnutrition.

The breakdown of social norms, the pillars of society and the vital ingredients for the functioning of informal governance structures has interfered with the social equilibrium (Box 1).

Box 1: Consequences of breakdown of social norms

A Garissa teacher moved participants at an AIDS workshop to tears when he declared he was HIV positive... The one-day seminar also heard that AIDS was prevalent in the district due to widespread poverty and the collapse of societal norms and values owing to an increase in divorce cases. There was an emergence of commercial sex workers among the predominantly Muslim society...

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2.4 Policy Influences

2.4.1 *Political and Economic Marginalisation*

Perhaps the greatest cause of economic stagnation in pastoral areas is their neglect by public policy. During the colonial period, pastoral areas especially in north and north-

eastern Kenya, were collectively termed as "closed districts" due to their hostile nature characterised by extreme aridity, remoteness and occupation by "warlike" ethnic groups (Braaksma, 1994). No movement was allowed to and from these districts without the permission of the colonial administration. In addition, pastoral areas were viewed as liability areas that did not significantly contribute to the national economy. Development within these areas was focused on preserving security and the culture of the community (RoK, 1991). Consequently, no deliberate efforts were made to invest in these areas.

At independence, the prevailing development policy emphasised putting resources in areas and sectors with a high rate of return to investment (Mutiso, 1991). Thus, the high and medium potential areas witnessed marked investment in socio-economic infrastructure as well as agricultural-based production and processing, resulting in an impressive growth in the economy. It was expected that this growth would trickle-down to the ASALs, however, this did not happen (RoK, 1991). The 1975 Shifta insurgency in North Eastern Province ostensibly reinforced government's reluctance to open up these areas. Even after 1992⁵, the new political dispensation has not had a significant impact on pastoral communities as the most active political parties are still dominated by and localised within the bigger ethnic groups. As a result, the pastoralists' political voice still remains muzzled, and their needs unheard without appropriate political platform. So serious is the situation that issues concerning pastoral development have attracted attention only after they reach crisis proportions. For example, during the 1999/2000 La Nina-induced drought, although the Arid Lands Resource Management Project made some interventions in Turkana, it is only after a local newspaper highlighted the story and initiated a fund-raising drive that the government directed more efforts to forestall a catastrophe in the district (Omiti, 2000c).

The government bureaucracy has not improved the situation either. Civil servants (often from HMPLs) posted to pastoral areas have often termed these areas as "hardship areas" or "punishment stations". As such these workers have generally been demotivated and without much desire to undertake serious long term planning to promote development in the ASALs (OAU-IBAR, 1999). The outcome of political and economic marginalisation of pastoral areas is depicted by low infrastructural development in roads, water, power, telecommunication, education, health and marketing facilities (Box 2). Lack of infrastructure has discouraged the involvement of the private sector in the ASALs.

⁵When Section 2A of Kenya's Constitution was repealed to allow for a multi-party political democracy

Box 2: Some education and health indicators in pastoral areas

The literacy level of 3 per cent for the Maasai in Kajiado district and 3 per cent for Somali in Mandera compared with national average of 79.3 per cent. Primary school enrolment for Kenya as a whole is 65 per cent compared with 18 per cent and 6 per cent for Kajiado and Mandera, respectively (UNDP, 1999). Only 50 per cent of Turkana pastoralists had access to healthcare. The other 50 per cent were either too far away or too nomadic to systematically access healthcare or unable to afford it (Hughes, 1996).

RWA International (2000)

Several reasons have been put forward to explain the low interest in investing in pastoral education. These include that (i) expensive education service delivery in remote and sparsely populated areas; (ii) frequent mobility and inability of pastoralists to pay for education; (iii) socio-cultural factors that attach little value to formal education, and (iv) protracted conflicts. Nonetheless, pastoralists greatly value education and have developed traditional education systems that fit to their way of life. For instance, the mobile Koranic schools (or Madrassa), which are well attended, operate in the morning and evening to avoid times when the children are needed for herding. Lack of formal education limits pastoralists' options to gain employment outside the pastoral sector.

2.4.2 *Development Policies*

(a) "Industrialisation-first" development policy

Since independence, Kenya has pursued an "industrialisation-first" development policy as the key to economic growth. Indeed, Sessional Paper No. 2 of 1997 thematically deals with "Industrialisation to the Year 2020". Consequently, policy instruments promulgated by the government since independence in 1963 have been biased against agriculture towards industry (Oniang'o, 2001). This has led to a deterioration of the terms of trade against the agricultural sector making it less profitable than the other sectors of the economy (Nyangito, 1998). Thus although agriculture is widely recognised as the backbone of country's economy, few concrete measures have been put in place to promote its development. While this is true for the agricultural sector generally, it is even more pronounced for the pastoral livestock sector. A survey of development policies promulgated by the government since independence (see Table 7) reveals that the focus has mainly been on industrialisation and arable crop production. Little attention has been paid to the unique circumstances of pastoralists and their livestock.

(b) Top-down policy approach

Often, the government has pursued top-down policies that aimed at settling pastoralists and regulating their stocking rates without consulting with them (IFPRI, 1999). Donors also have developed and implemented policies with inadequate or no participation of stakeholders in decision-making. As a result, development projects aimed at improving the circumstances of the pastoralists have not adequately tackled the real problems for which they were developed. The sustainability of these projects has therefore been lacking because the beneficiaries have failed to identify with or own them.

In the 1980s, however, the government deliberately invoked policies to address the needs of pastoralists. These included the introduction of the School Milk Feeding Programme, the introduction of the quota system in student admission to national secondary schools and universities, and the District Focus for Rural Development (DFRD) programme. These policies were meant to allocate resources more equitably, specifically to less developed districts. However, due to poor implementation, monitoring and evaluation as well as corruption, most of these initiatives have now collapsed (RoK, 1999). Where the policies have worked, they have mainly benefited the sedentary groups without assisting the nomads who are yet to reap any mentionable benefits.

2.4.3 National Food Policy

Kenya's national food security was promulgated in Sessional Paper No. 4 of 1981. Before then, the pursuance of broader policies within the agricultural sector was expected to spur agricultural growth, which would automatically translate into adequate food at the household level. The paper emphasised that it was necessary to intensify the production of foodstuffs, particularly maize, to enable the country to achieve food self-sufficiency without recourse to food imports (RoK, 1994). This made the food policy supply-sided, mainly oriented towards meeting the food needs of the consumer, who is often the urban dweller or those with the economic ability to buy, while ignoring the food security needs of smallholders and pastoralists. However, the policy recognised the need to promote drought tolerant food crops such as millet, sorghum and pulses in the ASALs to enhance food security while at the same time relying on food relief to alleviate hunger and malnutrition in affected areas. While acknowledging that international food aid will continue to play a significant role in fighting hunger in developing countries, Suresh (2001) warns that food aid compromises the ability to mobilise internal resources towards food security, thus entrenching poverty.

Table 7: Highlights on development policies in Kenya

Year	Policy document	Focus
1964-69	Development Plan	Rapid growth to alleviate poverty and reduce unemployment. There was no reference to the pastoral economy.
1965	Sessional Paper No. 10	African socialisation and its application to planning
1970-74	Development Plan	Emphasis was on more labor intensive production technology and the promotion of small-scale rural industries and crafts.
1974-78	Development Plan	Equity and employment generation to reduce unemployment and income disparities.
1975	Sessional Paper No. 4 on Economic Prospects and Policies	Proposed to shift the economy from capital on intensive urban infrastructure projects to labor intensive agricultural production and basic rural infrastructure, including rural access roads and water supply.
1979-83	Development Plan	Emphasis is laid on employment expansion and productivity enhancement to increase the incomes of the poor. The growing problems of the landless poor and interventions in the land market were proposed.
1983-85	DFRD	District Focus for Rural Development. Grassroots participation in project prioritisation and implementation
1984-88 & 1989-93	Development Plan	Economic liberalisation in line with structural adjustment policies.
1986	Sessional Paper No. 1 on Economic Management for Renewed Growth	Blue print for economic liberalisation in line with structural adjustment policies promoted by the IMF and the World Bank.
1997-2001	Development Plan	Shifted emphasis from government to the private sector investment in industrial production. The aim is to transform Kenya from a largely agricultural economy to a newly industrialised country by the year 2020.
1996-98	Policy Framework Paper (PFP)	The government shifted its budgetary resources to core functions as set out in the Public Investment Programme (PIP). The PIP indicates that 75% of the development budget will be allocated to projects that fulfil the core government functions, with priority given to those which reach a large number of Kenyans, especially the poor.
1999-2015	National Poverty Eradication Plan (NPEP/PRSP/MTEF)	Recognises ASALs as a special case requiring special programmes but does not suggest specific programmes to develop these areas.

Source: National Development Plans (Various).

2.4.4 Economic Liberalisation

Economic reforms in Kenya started in the 1980s prompted by the International Monetary Fund (IMF) and the World Bank under the structural adjustment policies of the two Bretton Woods institutions (Aseto and Okelo, 1997). These reforms took the form of market liberalisation, privatisation of some public functions, civil service reform, cost-sharing and the removal of subsidies. The aim of these policies was to spur economic growth and macro-economic stability through reduced government support and its direct participation in various sectors. The reforms were enunciated in Sessional Paper No. 1 of 1986 on Economic Management for Renewed Growth, amongst other policy documents.

(a) Market liberalisation

Market liberalisation was meant to remove direct government involvement in functions that it did not have a comparative advantage with respect to efficiency and social equity. The rationale was to let the forces of demand and supply determine the market prices, in an economic environment of *laissez faire*. This was expected to improve the incentives for both producers and consumers to enhance the production and consumption of goods and services. One of the positive outcomes of liberalisation especially in the livestock industry was the improvement of market prices for milk and meat, as a result of increased entry of competitive players and the removal of institutional bottlenecks that had hitherto constrained operations in the industry. The main market reforms in the livestock industry are shown in Box 3.

Box 3: Major reforms in the livestock sector

- De-regulation of price controls in the meat industry, 1988
- Sale of veterinary drugs at full cost, 1988
- Price liberalisation for animal feeds, 1989
- Privatisation of artificial insemination services (AI), 1991
- De-control of milk prices and liberalisation of the dairy sector, 1992
- Privatisation of clinical veterinary services, 1994
- Transfer of dip management to community dip committees, 1994
- Decentralisation of abattoirs from urban to rural areas, 1994
- Transfer of animal holding grounds to local authorities (as from 1994)

Source: MoARD Annual Reports (Various)

The implementation of market reforms was done against the backdrop of a poorly performing economy and a collapsing socio-economic infrastructure. This, coupled with the hurried

and uncoordinated application of these measures, left the livestock sector operationally weak. While the reforms were supposed to improve the provision of inputs and services, this did not work as it was anticipated especially in the ASALs. With a narrow private sector, curative and preventive services in these areas were thrown into disarray. Unfortunately, there has been an increased supply of drugs of questionable quality and the involvement of unqualified veterinary practitioners, including livestock owners, in the treatment of livestock diseases (Oruko et al., 2000). Increased cases of drug failure are now being reported as a result of drug misuse, thus increasing the possibility of parasite and vector resistance to available drugs. For instance, pastoralists in Tana River and Kajiado districts have complained that the available trypanocidal drugs are increasingly becoming ineffective in the management of trypanosomosis (Catley and Irungu, 2000; Ngare and Mwendia, 1999). On the other hand, notifiable diseases which had hitherto been brought under control such as rinderpest, Contagious Bovine Pleuropneumonia (CBPP), and foot and mouth disease (FMD), are now being widely reported. Zoonotic diseases, particularly those transmitted through milk such as tuberculosis and brucellosis, are also assuming significance following the liberalisation of the livestock industry (IEA, 2001a).

(b) Privatisation

Privatisation involves participation of the private sector in the economy while restructuring the government portfolio towards greater efficiency and productivity (Aseto and Okelo, 1997). It involves the opening up of state monopolies to private sector competition and divestiture of government from public services. As pertains to pastoralists, privatisation affected the viability of the Kenya Meat Commission (KMC), which before its collapse in 1992, was the major marketing outlet for pastoral livestock especially during drought periods (Omiti, 2000b). The collapse of KMC also meant that plans to integrate the private sector in marketing of pastoral livestock herds did not fare on well (RoK, 1994).

(c) Cost-sharing

Cost-sharing involves recipients of publicly supplied goods and services contributing part of the costs of the good or service. It rationalises and promotes efficiency in the provision of public services while minimising free riders (Kimuyu, 1992). The cost-sharing policy seriously affected the education and health sectors. In the education sector, enrolment in both primary and secondary schools declined while drop out rates increased (RoK, 1999). In primary education alone, the average cost burden increased from almost zero to Kshs

3,728 per rural household. In the health sector, introduction of payment for in- and out-patient and pharmaceutical services has led to reduced access to these services (Owino, 2001; Owino, 1999). Inaccessibility to education and health services is particularly critical in pastoral areas, which are characterised by inadequate facilities and a population with low purchasing power. This situation is further compounded by the increasingly serious challenges of the HIV/AIDS pandemic, which is fuelled by some traditional and cultural practices unique to the pastoral sector.

Cost-sharing has also been introduced in the provision of animal health services. For instance, since year 2000, farmers in Laikipia district have been paying Kshs 4 per animal for the FMD vaccine (Maichomo et al., 2001), a service which was previously free. Tick and tsetse control initiatives in affected areas are now being handed over to communities in what came to be known as "community-based projects". The move to involve communities in development activities arises from the current neo-liberal thinking that emphasises on reduced government participation in the public sector (Catley and Leyland, 2001). It is assumed that community involvement in such initiatives will ensure their sustainability. While the concept of community-based projects is novel in principle, it seems ironic especially in the face of rapid impoverishment of rural households in pastoral areas.

(d) Civil service reform

Reforms in the civil service were undertaken to enhance efficiency and effectiveness in the delivery of services. The goal of these reforms was to cut the bloated public sector labour force through retrenchment. In the long run, these efforts are expected to promote efficient service delivery and effective use of available resources through improved ratio of Operations and Maintenance (O&M) over Public Expenditure (Nyangito et al., 2000). In the ASALs, the reforms were expected inter alia to translate into a leaner and more vibrant animal health delivery system. However, the civil service reform has affected the pastoralists negatively. First, retrenchment of government workers in the Ministry of Agriculture and Rural Development, and particularly in the Veterinary Department, has seriously affected the delivery of animal health as a result of the reduced number of technical staff. Second, although theoretically staff from marginalised groups were not to be retrenched, in practice, the retrenchment programme targeted low cadre civil servants (drivers, mechanics, cleaners and office messengers), which, inevitably, disadvantaged workers from the ASALs where wide-spread illiteracy limits their access to higher cadre jobs. Their low-paying jobs also meant that they had relatively little cash compensation that would sustain any nascent private sector investment.

(e) Removal of input subsidies

Prior to economic reforms, veterinary services (e.g. AI, tick control, drugs and vaccination) were highly subsidised by the government. After liberalisation, the subsidy was removed leaving the operation of market forces to influence supply and demand. The gap left by government has led to the proliferation of "black" markets in veterinary drugs (OAU-IBAR, 1999) and entry of a considerable number of unprofessional veterinary practitioners (Leonard, 2000). This has led to a sub-optimal animal health delivery system that allows public sector operators to extract economic rent from livestock farmers as well as enjoy an unintended subsidy from the government (Oruko et al., 2000). Under these circumstances, livestock production suffers in that major diseases, vectors, pests and parasites are not managed cost effectively, especially by resource poor farmers.

(f) Credit and finance

Often, agricultural credit in Kenya is mainly and disproportionately channelled to arable crop production where it is assumed to be most needed and perceived to provide relatively higher returns. Because pastoralism is practised under risky and uncertain socio-economic and climatic environments, it is not stable enough to provide a relative high return on credit. While this view may be justified on prudent financial considerations, it has often led to the discrimination of pastoralists in terms of their credit access. A key source of credit in the pastoral sector has been from the producers who allow itinerant livestock traders to take their livestock on the basis of partial or deferred payments (Bekure and de Leeuw, 1991). It is instructive to note that in many parts of West Africa, big livestock traders commonly finance small traders to purchase cattle from herders in remote hinterlands (Josserand and Sullivan, 1979). It has been reported that pastoralists have successful traditional loaning and insurance schemes (Dahl, 1979) and working institutions for redress and debt collection (OAU-IBAR, 1999). With the intended move towards a decentralised agricultural financial system and the promotion of a greater dependence on informal credit (RoK, 1994), it is likely that enhancing these traditional financial systems could promote pastoralists' access to credit and other financial resources.

(g) Research and development

A major objective of agricultural research policy is to increase productivity per unit of productive resource (e.g., land, labour, animal breed, etc) by applying efficient production techniques. In the livestock sector, the main aim has been to promote the dairy and meat

subsectors to meet the growing demand for milk and meat. The strategy has been to upgrade low-producing local breeds with high-yielding genotypes, and to search for livestock breeds that tolerate major diseases such as trypanosomosis, CBPP, FMD and rinderpest (RoK, 1994).

In spite of these fairly elaborate plans, livestock research has remained limited due to lack of adequate funding. For instance, agricultural research expenditure rose from 0.08 per cent of GDP in 1970 to 0.67 per cent in 1981/82 (UNDP/FAO, 1983). Over the years, livestock research has continued to receive disproportionately little funding relative to the total allocation to agricultural research (Omiti and Muma, 2000). For example, out of the 4 per cent of the national budget allocated to agriculture, only a tenth goes to research and development of which 20 per cent goes to livestock research. Of this, less than 50 per cent goes to pastoral research, the rest being taken up by the dairy subsector. This scenario is made worse by the current government financial constraints and diminishing donor support:

...the reduction in financial resources earmarked for non-wage operations has resulted in a cut back in field trials, deterioration of research infrastructure, reduced researcher mobility and cuts in publications and other outreach services. Reduced funding for travel and fieldwork in effect isolates researchers from their clients thus making research contribution to agricultural production minimal... (KARI, 1997).

Furthermore, apart from the development of a viable thermostable rinderpest vaccine and the identification of N'Dama and Boran as trypanotolerant cattle breeds, no major research breakthroughs comparable to those in arable agriculture, have been achieved for the livestock sector in pastoral areas (RoK, 1991). For instance, the camel research project initiated by the government in Marsabit the mid 1980s did not bear much fruit. Although strategies have been put in place to develop drought resistant crops (RoK, 1994), and to improve livestock through crossbreeding (Bekure and de Leeuw, 1991), little positive action has been achieved on the ground.

(h) Globalisation

Globalisation is the opening up of markets, in keeping with the emerging principles of international trade, to allow the flow of technology, information, capital and labour to move across the national borders (Pinstrup-Andersen and Babinard, 2001). From an economic viewpoint, globalisation entails the removal of tariff and non-tariff trade barriers in support of a free market economy. It is estimated that by halving trade barriers around the world,

over US\$ 380 billion a year would be added to the world economy, 155 billion of which would accrue directly to developing countries. The World Trade Organisation (WTO)⁶ is responsible for regulating the world trade to facilitate the emergence of a liberalised global economy. For instance, under WTO's Agreement on Agriculture (AoA), member countries are bound to reduce tariffs on food imports by 24 per cent over a 10-year period (Madeley, 2000).

With regard to livestock marketing, livestock products meant for export markets must meet the necessary sanitary and phyto-sanitary (SPS) standards such as absence of diseases, antibiotic and insecticide residues in animal tissues. Under these regulations, livestock producers must improve the quality of their products in order to be permitted in international markets. These rules pose a big challenge to the pastoral economy given the current problems that are plaguing the delivery of animal health services following market liberalisation. The effects of WTO's stringent regulations have started to bite as a livestock exporter notes:

“If one wants to export livestock, they must be kept for 100 days for CBPP tests with the cost being borne by the owner. The animal must give three negative tests for CBPP before being allowed [to export]. This is a major constraint for the ordinary trader... The veterinary department, with good intentions, enforces these regulations but it is a big problem to us. Another way of proving [that] an animal is CBPP free should be found than one that places such a burden to the exporter. Traditionally, our export markets used to encompass the Middle East and Egypt. The sole traders that were engaged in the trade have since left citing overly restrictive regulations.” (OAU-IBAR, 1999).

(i) Regional trade

The East African Community (EAC) and the Common Market for Eastern and Southern Africa (COMESA)⁷ trade agreements, of which Kenya is a signatory, require that member countries open up their borders, through the removal of tariffs, to regional competition. Kenyan traders, particularly urban supermarkets, seeking to take advantage of high profits have been reported to have imported large quantities of livestock products such as canned beef, powdered milk and eggs from the regional markets. This has depressed domestic producer prices thereby reducing the profitability of livestock enterprises and jeopardising the source of livelihoods of many Kenyans. This situation is likely to deteriorate considering that about 400,000 head of cattle enter the Kenyan market illegally each year. Of these, 50,000 head come from Somalia, 100,000 from Ethiopia, and 250,000 from Tanzania (Leete,

⁶Formerly the General Agreement on Tariffs and Trade (GATT).

⁷This evolved from the Preferential Trade Area (PTA).

2001). As the regional markets continue to develop, cheap imports of livestock and livestock products might further depress the local producers' competitive edge. This is likely to get worse if Kenyan producers continue to produce at high cost. The government needs to address the reasons that cause farmers to be higher cost producers relative to our neighbours. Failure to do this will only encourage inefficient production. Given the wide range of market choices guaranteed by liberalisation and globalisation policies, trade merchants will inevitably choose against high cost producers.

One of the positive aspects of regional co-operation is the institution of common strategies that will enable member countries to manage the effects of globalisation. For instance, members of the EAC are now working towards a common agricultural policy which aims, among other things, to harmonise the zoo and SPS inspection services as well as the certification and regulation of pesticide use. It is hoped that this will help lower barriers to trade and permit member countries to meet the demands of the export market.

2.5 Physical Environment

2.5.1 Adverse Weather Conditions

Periodic drought is an inherent feature in pastoral areas. The term 'non-equilibrium environments' has been coined to describe such areas (Ellis and Swift, 1998). Frequent droughts result in loss of pasture and water, and sometimes, death of many animals and sometimes people. To mitigate against the adverse effects of drought, pastoralists have to move livestock to high rainfall areas and this results in the spread of livestock diseases and conflicts along the migratory routes. For instance, during the 2000 drought, some pastoralists completely lost their herds to drought and have since been thrown deeper into the trap of poverty (Maichomo et al., 2001; Omiti, 2000c). Some of those who lost their herds have been trying to restock through cattle rustling leading to more ethnic animosities and loss of human life.

Persistent droughts increase the vulnerability of pastoral communities to food insecurity, often forcing pastoralists to frequently rely on famine relief aid (Omiti, 2000d). Their condition is further worsened by poor famine relief strategies and a narrow national food policy that particularly emphasises maize production. In addition and because of frequent droughts, the changed character and nature of chronic vulnerability is poorly understood. Subsequently, the wrong instruments such as relief food are used to respond to a problem that does not require food as the solution. Furthermore, the public failure to respond

decisively and expeditiously to drought-induced distress has increased pastoralists' vulnerability to the vagaries of weather. The result of frequent and extended droughts, compounded by conflict, has been the creation of a large constituency of 'drop-out' pastoralists. These destitute pastoralists have ended up in local urban areas causing further pressure on already inadequate social amenities.

2.5.2 *Land Degradation*

Pastoral range resources often experience uncontrolled stocking densities, which subject the land to extreme grazing pressure that often leads to soil erosion, destruction of vegetation and other natural resources. The cutting of trees for charcoal has also had its toll on range resources. These effects expose pastoral areas to aridity and desertification, accompanied with a general loss of biodiversity.

High human population in the high and medium potential areas, coupled with lack of well-defined property rights for communal land, has led to the influx of cultivators into the ASALs. These marginal areas have inadvertently become the "safety valve" for population pressure in the high and medium potential areas. These immigrants carry on with their cultivation methods, inherited from their areas of origin, with little regard to the fragile ASAL ecosystems, thus promoting land degradation (Ngare, 1996). It has further been argued that cropping normally demands more resources than the judicious pastoral production, and thus promotes faster land degradation. Very often, the immigrants settle on the wetter dry season grazing areas, sometimes along the migration routes, so that pastoralists are pushed further and further into the arid areas (Roderick, 1995). The result has been violent land use conflicts as pastoralists try to recover their lost pastures. Currently, Kenya lacks a national policy that protects pastoral land from encroachment by other land users (Ntimama, 2000; OAU-IBAR, 1999). Additionally, a clear definition of the rights and roles of pastoralist associations or other organisations for collective action in land demarcation, negotiation of boundaries and rules of access are not yet defined (ILRI, 2000).

2.5.3 *Regional Instability*

Social and political conflicts in neighbouring countries have impacted negatively on the Kenyan pastoral economy in a number of ways. First, these conflicts have spilled over into the country, leading to loss of human life and property. Second, the conflicts have increased the supply of illegal firearms into the country, particularly amongst the pastoralists.

Accordingly, pastoralists use the guns to raid their neighbours' livestock, leaving trails of death, rape and destruction of property. Third, regional conflicts have increased the influx of refugees into Kenya. Most of these refugees come with their animals, which compete with those of Kenya's pastoralists for pasture and water. Such competition has ended up in violent skirmishes. Fourth, regional conflicts have reduced Kenya's ability to monitor its borders, thus facilitating the entry and exit of illegal and untaxed merchandise such as guns, drugs, stolen livestock, vehicles and consumer goods. Although still largely ignored by some development agents, conflict is increasingly becoming recognised as the single most important factor hindering the development of pastoral areas (Irungu, 2001; Waithaka, 2001; OAU-IBAR, 1999). National governments, organisations such as IGAD and OAU, churches and NGOs should intensify efforts to resolve regional and internal conflicts.

2.5.4 Human-livestock-wildlife Conflicts

Given that most of Kenya's game parks/reserves are found in the ASALs, a large proportion of Kenya's income comes from wildlife tourism. Adventure tourism is also focused on the ASALs because of their spectacular scenery and a sense of wilderness. The interaction between wildlife and livestock in these areas has been a major source of antagonism between livestock keepers and the Kenya Wildlife Service (KWS), which manages these parks. Whereas pastoralists are encouraged to accommodate wildlife in their grazing areas, they are not supposed to graze inside the parks (Repperkamp, 1986). Under the current laws and management, wildlife is largely seen by communities as a liability imposed upon them. Skewed investment in game parks vis-à-vis pastoral lands has also yielded conflicts. At the same time, compensation for injury or crop destruction by wildlife has at times not been made, and where it has, payment has been delayed or incommensurate with the extent of damage (Opala, 2001; Hecox, 2000), Box 4.

2.6 Positive Outcomes

2.6.1 Enhanced Use of Traditional Knowledge

Because of their minimal exposure to modern medicine, pastoralists heavily rely on traditional knowledge in the management of human and livestock diseases (Munyua et al., 1998). For instance, the Orma community often uses such diverse methods as drugs from tree barks, leaves, roots and berries in fish soup and sheep fat in the management of trypanosomosis (Irungu, 2000).

Box 4: Extent of wildlife-human conflicts in Kenya

The government stopped paying compensation for crop losses since 1989. This is because the system became unworkable due to widespread cheating on claims, high administration costs and lack of disburseable funds. From January 1989 to June 1994, wild animals in Kenya killed 230 people and injured 218, which is an average of 42 deaths and 40 injuries per year. Elephants perpetrated 173 of these attacks.

East African Standard, 8th October, 2001, Page 18

Members of Parliament from both sides of the House yesterday questioned an Assistant Minister up in the Office of the President over the deaths of people caused by rogue elephants in several parts of the country. One MP asked whether the Minister was aware that elephants are killing people, livestock, crops and indigenous trees at an alarming rate in Loitokitok division. He also sought to know what measures the government was taking to ensure the security of wananchi in the area as well as their crops and livestock. In reply, the Minister said he was aware of the matter saying the Government was committed to resolving the issue. He added that KWS had posted rangers to the affected areas and has also opened a post at Maili Tatu. He also said the KWS recently used an aircraft to monitor the movement of elephants

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However, ethnopractitioners should be recognised and a public policy should be developed to harmonise traditional healing practices with the current human and animal health delivery systems. This will not only conserve this long-serving profession but also offer accessible alternative therapies and remedies. First, there is need to review legislation that alienates and criminalises ethnopractices (Munyua et al., 1998). For example, there is need to review the Medical Practitioners and Dentists Act (Cap 253), the Cattle Cleansing Act (Cap 358), Animal Diseases Act (Cap 364), and Veterinary and Surgeons Act (Cap 366) to recognise the role of ethnopractitioners in human and animal health. It is also necessary to change the negative attitude towards ethnopractices. Second, public policy should address issues relating to ownership rights and patenting of herbal concoctions and extracts. With increasing awareness of the possible profits from extraction of active ingredients, suspicion and conflicts are bound to crop up between ethnopractitioners, researchers, government officials and drug companies. Mechanisms are therefore needed to address issues relating to intellectual property rights as prescribed in the WTO's new treaties on Trade Related Aspects of Intellectual Property Rights (TRIPS) and the Trade Related Investment Measures (TRIMS). The two treaties are aimed to resolve disputes in intellectual properties, particularly between the developing and developed countries and ensure that such properties are protected irrespective of the country of origin (IEA, 2001b).

2.6.2 *A Variety of Coping Mechanisms*

Owing to their continuous exposure to hardship and distress, pastoralists have developed certain time-tested mechanisms to cope with the situation. For example, during drought, pastoralists migrate in search of pasture and water. They also utilise wild fruits as a source of food and obtain water from sand along dry riverbeds. In addition, they do not allow any dead animal to go to waste! Pastoralists also maintain a strong social system for resource sharing, borrowing, lending and gifting. There exists well-designed and extensive institutional cooperative frameworks for sharing resources and redistributing livestock when some members of the community lose their herds to drought, disease or theft (Dahl, 1979). Furthermore, pastoralists keep many livestock where numbers are more preferred than quality. These livestock are usually distributed in diverse herds to provide a broad, flexible and stable resource. Livestock herds are also split into spatially separate units based on factors such as species, management units, production, age and property rights, to minimise the effects of drought, disease, theft or other environmental vagaries (Niamir, 1991). During drought, pastoralists send away all able-bodied people not required in the production system to work in adjacent agricultural areas (Kariuki et al., 1996). These coping mechanisms enable the pastoralists to survive in their harsh and fragile environment.

2.6.3 *Diversification of the Pastoral Economy*

Over the years, the pastoral economy has changed, albeit slowly, in consonance with changes in the wider society. This has partly resulted from increased demand by pastoralists for goods and services produced outside their economy, and partly due to interaction with non-pastoralists, leading to a diversified pastoral economy. For instance, the Maasai are investing in the services sector including transportation, livestock processing industry, recreation and wildlife-based tourism (Kariuki et al., 1996). In some cases, pastoralists have adopted a more sedentary mixed economy, where they practice pastoralism and cultivation. For example, in Narok district, the Maasai pastoralists have become successful farmers who produce wheat, maize and other crops. In the Nguruman area of Kajiado district, more Maasai are now adopting irrigated production of horticulture where they grow vegetables for export. Although these are only a few examples, it seems that with the right incentives, pastoralists are amenable to change.

2.6.4 Improvement of Pastoral Voice

The unique circumstances of pastoralists have attracted considerable local, regional and international attention. In the 1940s and 1950s the colonial government, in recognition of the importance of pastoral areas in agricultural production, formulated two major development programmes, the African Land Development Programme (ALDEV) and the Swynnerton Plan. At independence, the new government established the Range Management Division in the Ministry of Agriculture, to carry out the activities of ALDEV (Box 5).

Box 5: Projects implemented by the Range Management Division

1. UNDP/FAO Range Management project (1964-1973)
 - It carried out land use surveys as a basis for detailed pastoral development planning
2. Kenya Livestock Development project (KLDP)
 - (a) Phase I (1968-1973)
 - Provided credit to group and commercial ranches
 - Developed 108 ranches
 - (b) Phase II (1974-1982)
 - Established 60 group ranches, 100 commercial ranches, 21 company/cooperative ranches and 3 feedlots
 - Established 15 grazing blocks covering 4 million hectares in North Eastern Province and Isiolo district through provision of water, access roads and grazing system.
3. District-based projects (late 1980s/90s - Present)
 - Introduced district-based projects and programmes with government, donor and NGO funding to mitigate the impact of drought in pastoral areas.

Source: Range Management Division Annual Reports (Various)

Several pastoralist forums have been held to discuss matters affecting the pastoral economy, drawing representatives from the ASAL districts, the private sector, government officials, NGOs and the civil society (Box 6).

Box 6: Issues discussed in a recent pastoral forum

- HIV/AIDS
- Insecurity e.g. Cattle rustling, illegal firearms
- Local empowerment e.g. local participation, inclusiveness, advocacy
- Role of stakeholders e.g. questionable role of some NGOs in the ASALs
- Land use policy e.g. management of shared resources
- Governance e.g. role of District Development Committees
- Corruption
- Livestock markets e.g. KMC and holding grounds
- Diversification of pastoral economy e.g. mineral exploration, irrigation, wildlife and tourism
- International trade e.g. cheap imports, trade restriction, etc.
- Environmental degradation and drought
- Infrastructural development e.g. extension services, roads
- Animal health

Omiti (2001a)

Some of the organisations that have contributed significantly to improving the voice of the pastoralists include PINEP, ARNEP, ASIP, SARDEP, KRDS and ALRMP. Initiated in 1996 by the government with funding from the World Bank, the ALRMP is implemented under the Office of the President and it operates in 10 arid districts, namely Turkana, Baringo, Wajir, Mandera, Samburu, Moyale, Marsabit, Garissa, Isiolo and Tana River. The project aims to strengthen and support community-driven initiatives to reduce widespread poverty and enhance food security in the 10 arid districts. It also aims to conserve the natural resource base in the arid districts 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 (RoK, 2000). The project has established institutional structures at the community, district and national levels to effectively manage all phases of the drought cycle, i.e., drought preparedness, mitigation and recovery. The project is also involved in developing a policy on disaster and drought management and in the implementation of district contingency plans. The major activities have been the establishment of grass-roots institutional structures such as livestock drug user associations, micro-project management committees, community human/animal health workers, water user associations and livestock marketing associations. While the activities of these pastoral organisations and forums have contributed towards the alleviation of human suffering in the ASALs, more still needs to be done, especially at the policy level, to ensure that these programmes are institutionalised and financially supported. For instance, most of the group ranches that were established under KLDP I and II have been subdivided into unviable units. Company and co-operative ranches are also experiencing constraints mainly the lack of credit, as a result of the collapse of Agricultural Finance Corporation (AFC).

2.7 Negative Outcomes

2.7.1 Spiralling Poverty

The National Poverty Eradication Plan (NEP 1999-2015) indicates that more than 47 per cent of the rural population and 29 per cent of the urban population live below the absolute poverty line, respectively, pegged at Kshs 980 and 1,490 per person per month (RoK, 1999)⁸. The highest incidence of poverty is found in the arid and semi-arid areas of northern Kenya where the poor account for a disproportionately large share of the rural populace. For instance, in 1994, the absolute poverty level was 88 per cent in Marsabit, 84 per cent in Samburu and 82 per cent in Isiolo districts (RoK, 1999). There is no indication that the situation has improved nor are there signs that poverty has declined.

⁸ Note that these poverty lines are below the universal US\$ 1 per capita per day (RoK, 1999).

The historical exclusion of pastoral communities from mainstream socio-economic and political agenda by successive government policy documents has exacerbated poverty in pastoral areas. It has also diluted the credibility of the government in making the pastoral communities feel equal to other citizens, to the extent that some feel that they are not part of this country (Soper, 1986). Social exclusion on the basis of tribe and/or ethnicity seems to have biased away from pastoralists in terms of acquisition and access of public resources.

2.7.2 *Protracted Civil Conflicts*

Conflicts undermine pastoral development. Increased insecurity hinders the free movement of productive resources such as labour and capital thereby restricting investment. It also disrupts market activities and thus discourages trade. Conflicts increase transaction costs, which minimise the incentives for the private sector to participate in the pastoral economy, in addition to reducing access to water and pasture. Generalised insecurity also creates fears about the movement of livestock and people, thereby restricting their herding activities (Omiti, 2001a). Conflicts reinforce the negative impacts of other shocks such as drought and epidemics, rendering them more difficult to control. For instance, it has been noted that the Horn of Africa still remains a major reservoir of such diseases as rinderpest, CBPP and FMD because conflicts preclude effective implementation of vaccination campaigns (OAU-IBAR, 1999). Additionally, livestock raiding between neighbouring countries enables unvaccinated herds to move back and forth, and increase the risk of the spread of diseases.

Inter-tribal animosity, which is rife among the pastoral communities, has over the years brought fear, bitterness, poverty and death. More often than not livestock is the cause of animosity between the warring factions. Government efforts to curb the situation has had mixed success (Box 7).

2.7.3 *Economic Stagnation, Retrogression and Destitution*

The failure to address various development issues in pastoral areas has resulted in economic stagnation, thus reinforcing backwardness and destitution of in pastoral areas. In some areas, pastoralists are still pursuing out-dated cultural practices because of lack of exposure to the outside world. Cultural practices such as female genital mutilation, wife inheritance, discrimination of women (although not unique to pastoralists) and livestock raiding are rampant in these communities.

Box 7: Ravaging effects of cattle raids and conflict resolution

A middle-aged man was shot dead in West Pokot district and another one seriously wounded by bandits believed to have crossed from the neighbouring Turkana District. The bandits, numbering over 100, escaped without stealing animals. The West Pokot deputy OCPD was optimistic that the security personnel comprising police and administration policemen would arrest the criminals. The attack comes barely a week after another raid in Turkana District where over three people were killed and an unknown number of animals stolen by cattle rustlers. Meanwhile, the provincial administration in West Pokot and Turkana districts convened several peace meetings to diffuse tension along the border. The West Pokot acting DC said the Government was doing everything possible to return all the stolen animals from Turkana District by unknown cattle rustlers.

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Leaders in North Rift districts want income- generating schemes introduced for morans to reduce cattle rustling. The leaders said if alternative income generating projects were established, the youth would abandon cattle raids. Other resolutions included: (i) More boarding schools should be set up for the pastoralists to prevent their children from dropping out of school when their families move to distant places in search of pasture, (ii) Organisation of seminars for young men to tell them about the evils of cattle rustling, (iii) Improve roads in areas frequently affected by cattle raids to enable the security personnel move faster when pursuing raiders, (iv) Encouragement of religious organisations to promote peaceful co-existence among the communities affected by cattle raids.

Daily Nation, December 24, 2001 Page 6

Lack of infrastructure (roads, water, electricity, telecommunication, etc) has left the pastoral areas isolated, inaccessible and remote. Conflicts, on the other hand, have increased the general suffering of the people, making many children to become beggars in urban centres like Maralal town (due to the Samburu/Borana/Somali hostilities), Kilgoris town (conflict between Maasai and Kisii), Rumuruti township (war between Pokot and Turkana), to name a few. Women and girls have borne the brunt of these hostilities through rape and torture, while destitution has caused some to resort to prostitution.

Poverty too has reinforced the food insecurity of the pastoralists and putting them under the mercy of government and relief food aid agencies. Frequent droughts coupled with the government's ambivalent response have resulted in the loss of lives of both human and livestock, leaving many pastoralist families, hungry, malnourished, and desperate (Omiti, 2000c).

3.0 POLICY AND DEVELOPMENT OPTIONS

3.1 Development of the Pastoral Livestock Sector

Any effort to revamp the pastoral economy will have to begin with strategies to develop pastoral livestock, the production of which these areas have a comparative advantage. Three components come to mind, namely, development of water and pasture resources, development of livestock markets and improvement of animal health care.

3.1.1 Development of Water and Pasture Resources

Water

Water scarcity is a major hindrance to livestock production in pastoral areas. As such, government and some donors have rated the provision of water as a priority in pastoral development. Consequently, earth dams, water pans, wells and boreholes have been constructed in many ASAL areas. This way, large areas previously not used or used seasonally have been opened for more intensive pastoral livestock production.

Care should, however, be taken avoid environmental degradation in future water development programmes in the ASALs. This could be done by considering, for instance, the mobility of pastoral groups, seasonal use of pastures and stock routes. At the same time, measures should be taken to rehabilitate the range with the aim of optimising grazing pressure both geographically and seasonally. The management of water resources should be placed under pastoral associations whose role should be backed up by clear legislation, litigation and enforcement.

Pasture

High mortality, low fertility and significant nutritional shortfalls characterise animal production in the ASALs. In order to increase the productivity of livestock in pastoral areas, efforts should be made to increase fodder resources, and target feed supplements to productive animals. Some of these efforts could include range re-seeding programmes, production of pasture through irrigation and making hay during the wet season. Fodder availability can also be increased using land tenure, water and marketing policies. Agro-forestry programs, if well implemented, can enhance fodder production in pastoral areas and enhance soil fertility besides providing timber, fuel wood and subsistence resources for farmers and pastoralists. Such programs should also monitor the supply and demand for feeds and facilitate the marketing and distribution of supplements. The current ALRMP monitoring

system should be invigorated to inform pastoralists on areas with abundant grazing. This will help pastoralists to use range resources more productively and to take appropriate and timely steps to mitigate the negative impacts of drought or other environmental shocks.

3.1.2 Improvement of Livestock Markets

Although it has been widely recognised that pastoralists do not readily sell their livestock, this does not mean that they do not engage in market transactions. Pastoralists are usually involved in market transactions through consumption of goods and services produced outside their micro-economy, and therefore, out of necessity, they exchange their livestock and associated products either through the barter system or for cash (Nyangito and Omiti, 2000). One major reason for the weak participation of pastoralists in commercial markets is their ineffectiveness and inequity. This is partly because pastoral areas are remotely situated from major consumption centres while the transportation network is poor or non-existent. Other factors which limit effective participation by pastoralists in commercial livestock marketing include lack of animal market circuits, lack of water networks and holding grounds, low prices due to lack of market information, restrictive legislation such as quarantines, lack of credit facilities to traders (Kariuki and Letitiya, 1996). In addition, rent-seeking activities by agents along the marketing chain promote pastoralists' ambivalence to markets. It is claimed that countless "toll stations" along the marketing chain heavily penalise farmers and traders. Policy strategies to strengthen pastoral participation in the markets should take full account of the pastoralists' dependency on markets and should strive to reduce their vulnerability to disruptions in the exchange mechanisms in the markets. The government should take a bigger role in discouraging rent-seeking practices such as those "toll stations".

Policy should focus on fostering an enabling environment for productive activities. Such policies include the following:

- The County Councils should establish an effective infrastructure for livestock outlets e.g. market days, market centres/points, transport routes, holding grounds, stock routes, and watering points.
- The government should establish appropriate regulations to reduce transaction costs e.g. get rid of corrupt civil servants along the marketing chain. Stiffer or more proactive judicial interventions are also called for.
- The government should regularise the legal status of pastoral groups as commercial enterprises to ensure the protection of property rights and contract rights. This

may require some lobbying and advocacy by Members of Parliament from pastoral areas.

- The government with the help of NGOs and other aid agencies should provide appropriate credit schemes to livestock traders to enhance their businesses.
- The private sector and farmer organisations should look into ways of developing regional abattoirs or slaughterhouses from where meat could be transported in refrigerated trucks to market. Farmers in Laikipia have already carried out a study aimed at assessing the feasibility of establishing an abattoir in Laikipia district (Leete, 2001). At the same time, the private sector should revive the KMC or come up with an equivalent facility in order to provide a more efficient marketing channel for pastoral livestock herds especially during the drought period. If KMC is to be revived, then the government will have to absorb the US\$20 million debt that KMC owes.
- The government through the DVS should review transportation policies to evaluate restrictions on night transportation of animals.
- The Ministry of Trade and the private sector should explore all the possibilities of exporting livestock and livestock products to international markets. This will require the creation, with supervision of the DVS, of disease free zones and livestock movement corridors to control epizootics, particularly, FMD. The requirements and guidelines for exporting livestock and livestock products (or Codex) should be communicated to livestock producers, who should be encouraged to follow them to ensure that their animals are accepted at the international market.

3.1.3 Improvement of Animal Health Care

One of the major constraints to livestock production in pastoral areas is the presence of disease and ubiquitous disease vectors particularly ticks and tsetse flies. Conventional veterinary centres in the ASALs are extremely scattered, under-equipped, relatively costly and inefficient. Specific interventions by government and NGOs in disease prevention, animal management and nutrition are required. Such interventions should begin by understanding pastoralists' knowledge and know-how (Nyangito and Omiti, 2000).

The problem of poor delivery of animal health services in the ASALs should be dealt with by strengthening the Veterinary Department to deal with pastoral livestock needs. Owing to the low participation of the private sector in pastoral areas, the government should re-examine its stand on the current economic liberalisation policies to enable pastoralists to "catch up" with the rest of the country. It is worth noting that liberalisation of the animal

health services, as a whole, can only be beneficial and successful in an environment where all other institutions are properly functioning. Thus, judicious intervention by the government is critical. Specific policies required in this area include the following:

- The government, through the DVS, should establish an effective control of major animal diseases, particularly CBPP, FMD, rinderpest, East Coast Fever and trypanosomosis. In this regard, there is need for the government together with other development partners to strengthen the Kenya Veterinary Vaccines Production Institute (KEVEVAPI) and the Vet Labs at Kabete in order to, respectively, produce quality livestock vaccines and offer prompt and appropriate diagnostics on livestock diseases.
- The government should improve the rural infrastructure to enhance efficient distribution of animal health services.
- In addition, the government and NGOs should increase the number of extension workers in pastoral areas.
- There is also need to train local people in simple animal health techniques. This has been done effectively in the past by NGOs. During such training sessions, the NGOs should encourage the formation of pastoralist organisations to take charge of the delivery of animal health services in their areas.
- The Kenya Veterinary Board (KVB) should speed up the removal of legislation that discriminates against ethnoveterinary practitioners, who instead should be integrated with the conventional veterinary practices. Plans are already at an advanced stage to repeal the Veterinary Surgeons Act in order to accommodate the ethnovets.

3.2 Diversification of the Pastoral Economy

In order to ensure the sustainable development of pastoral areas, pastoralists will need to diversify their economy. This can be achieved in a number of ways. First, pastoralists can exploit alternative range animal products such as hides, skins, honey, ghee, and game meat through value-adding processes such as curing and storage of hides and skins and processing honey and ghee. Second, invest, where possible, in dry land farming not only for subsistence but also for high-value crops. Third, promote eco-tourism, film-making, curios and game cropping for alternative sources of income. Fourth, invest in other income generating activities such as jua kali, in micro-enterprises and transport business. Fifth, identify and exploit the abundant natural resources in the ASALs such as medicinal plants, fisheries and minerals (e.g. oil, sand, gold, etc). The full exploitation of these resources will, however, require political will, finance and technical know-how. The latter two aspects

could be provided by the private sector, research institutions, NGOs and the government. It is worth noting that some of the techniques, for exploiting medicinal plants, for example, are traditionally by some members of the community.

3.3 Improvement of the Rural Infrastructure

Pastoral areas are characterised by poor infrastructure. In order to stimulate development in these areas the rural infrastructure has to be improved. The government can (i) improve rural access roads and bridges that are currently in poor state or totally missing, (ii) (in collaboration with the County Councils and the private sector) rehabilitate and improve markets including stock routes, outspans, handling facilities and abattoirs, (iii) carry out rural electrification to facilitate development of cold storage facilities, and other value-adding processing activities of livestock products as well as the Jua Kali sector, (iv) improve, expand and rehabilitate water and telecommunication facilities, (v) (in collaboration with churches/mosques) improve and/or expand education and health facilities, and (v) allocate more funds for research on issues specific to the pastoral sector. NGOs working in pastoral areas should be encouraged to incorporate a research component in their development agenda.

3.4 Empowerment of Pastoral Communities

Pastoral communities need to be empowered. This can be done by strengthening pastoralist associations and community-based organisations (CBOs), the local government in planning, budgeting and implementation of policies and projects in the ASALs. There is also need to decentralise the decision-making and financial management responsibilities to rural communities. More public-private sector partnerships, including dialogue, participation and ownership of development initiatives are required. In order to address the problem of conflicts, there is need to recognise and strengthen traditional structures of governance, for example, councils of elders where they exist, and integrating these into the formal structures of governance such as the Chief and Local Councillor system. For example, Irungu (2001) reports the creation of such linkages in the Karamoja cluster. Initially, the financial support for these traditional structures should come from the national budget.

Already there are positive indications that village peace committees will bear fruit as illustrated below:

Kenya and Ethiopia will open a livestock market at Totenyang to enable neighbouring pastoral communities to trade their animals [as] part of a harmonisation process [to stop]

existing hostilities between the Turkana and Merille of Ethiopia caused by cattle raids... the Ethiopian authorities had accepted recommendations by the Kenya Government to hold frequent joint peace meetings at the border to end the rustling menace. [The DC] directed Chiefs from the affected areas to form peace groups comprising elders who will be responsible for organising peace meetings. *Daily Nation*, Wednesday, November 7, 2001 Page 9.

At the national level, there is need to create a department within government that specifically addresses pastoral issues. For instance, the Uganda government has created a Ministry of State to specifically address Karamoja affairs (Odhiambo, 2000). The establishment of the ALRMP in the Office of the President is a step in the right direction. However, its operations need to be invigorated and strengthened.

There is need to decentralise grass-root initiatives. A number of initiatives have been undertaken towards decentralisation and devolution of power to rural communities. One major attempt has been done through the District Focus for Rural Development Strategy (DFRDS) and the District Development Committees (DDCs) in which project planning, budgeting, prioritisation and implementation were moved to the district level. However, the DDCs are still dominated by government officials with very little representation of the local communities. Efforts should be made to strengthen popular participation by the people. For example, the law on Associations should also be reviewed to enable more pastoralists to join and participate.

The government and other development partners should continue with their "bottom-up" approach to development. This was seen during the preparation of the Poverty Reduction Strategy Paper (PRSP), where the government involved several stakeholders including the private sector, NGOs, CBOs, development partners, politicians, policy research institutes and universities in designing policies and strategies that are expected to reduce poverty in the country. The same participatory approach has been adopted for the budgeting component of PRSP known as the Medium Term Expenditure Framework (MTEF), and the longer term strategy of the PRSP, named the Kenya Rural Development Strategy (KRDS), as well as in the land (Njonjo Commission) and constitutional reform (Ghai Commission) processes. All these developments give some hope to the local communities who will now have a say on the type of government ruling them as well as on how their taxes and other resources are used.

There is an urgent need to provide information to stakeholders in the pastoral sector. Dissemination of information can be done through improved extension services. Besides public sector, extension information could be disseminated by the private sector, including

input suppliers, exporters, traders and the pastoralists themselves. There is need to establish or expand radio frequencies, which broadcast in local languages. To start with, stakeholders such as NGOs and churches could sponsor radio programmes using local dialects, on the existing radio frequencies. The 16-series radio programme sponsored in 1998 on the Kenya Broadcasting Corporation by the Kenya Pastoral Forum (Pastoralist Forum, 1998) is a step in the right direction. This programme was broadcast in the Borana language. More such programmes should be sponsored with more airtime and in diverse languages in order to reach more pastoral communities. To actualise this pastoralists will need to purchase radio receivers and associated accessories e.g. dry cells.

Finally, the local capacity of pastoralists will need to be enhanced through training. This will enable them to manage their resources as well as to take up a more active role in decision-making and advocacy. At the same time, pastoralists' understanding of the country's overall development strategy is necessary in order to enhance synergies between all actors in pastoral development.

3.5 Creation of an Enabling Environment

In order to promote development in the ASALs, there is need to create an enabling environment to facilitate the efficient operation of different stakeholders including the pastoralists themselves. To achieve this goal there is need to review the existing legal and regulatory policy frameworks. For example, the Land Law should be reviewed to clearly define property rights with regard to the access, utilisation and conservation pastoral land especially under communal tenure. The various Veterinary Acts should also be reviewed in order to recognise the role of ethnoveterinary practices in marginal areas. These players have been recently "demonised" by professional veterinarians as being a threat to sound veterinary practice and ethics, in spite of their vital role in animal health service delivery in hostile and remote environments.

Second, there is need to institute strategies for providing rural credit and finance. In this regard, research should be carried out to elucidate the nature, role and organisation of traditional loaning and insurance schemes, with a view to promoting them. Third, there is need for the government to provide rural infrastructure in order to promote the marketing of livestock and related products in addition to enabling the private sector to invest in these areas.

Fourth, since insecurity is a major constraint to pastoral development, there is need for the government to post more law-enforcing agents, particularly the police, in order to maintain

security. In addition, there is need to strengthen grassroots traditional security structures. For example, it is necessary to establish village peace committees to act as early warning conflict resolution systems (Irungu, 2001). At the regional level, the government should work in cahoots with international organisations such as IGAD, OAU and the UN, to speed up the disarmament programme in pastoral areas of eastern Africa, and to help promote political and social stability in neighbouring countries. This will reduce the access to illegal firearms, movement of refugees, access to markets for illegal and untaxed merchandise.

Fifth, the commercialisation/privatisation of KMC is long overdue. The revival is necessary particularly to pastoralists as it provides a guaranteed market for pastoral livestock but under different institutional and policy set-up (Omiti, 2000e). To achieve this, the government will be required to shoulder the debt that is currently crippling the factory in order to make it attractive to buyers.

Finally, there is need for a clear definition of the roles of the different stakeholders in pastoral development to avoid duplication of activities and enhance efficient utilisation of resources for the benefit of pastoralists. To start with, an inventory of all players in the pastoral sector should be undertaken and an umbrella body established to co-ordinate their activities. This will require the government to develop a political will to shed off some of its roles that can be performed better by other stakeholders. In effect, the role of different players should be matched with the capacity to perform. At the same time development partners should try to balance resource allocation between marginalised and other areas (Box 8).

Box 8: Role of donors and other development partners in pastoral development

Donor communities and international non-governmental organisations operating in Kenya need to apportion resources fairly between the ill-represented and marginalised northern pastoralist regions and the more advantaged regions. This observation is based on the historic premise that the two regions represent two separate socio-cultural settings. Since pastoral areas were sidelined in the development process and resource distribution, the NGOs should step in and fill the vacuum. Traditional donor agencies should do feasibility studies of all areas in order to familiarise themselves with their problems. This will allow them to distribute resources fairly according to the needs and priorities of each region.

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4.0 DISCUSSION AND CONCLUSIONS

4.1 Reflections on Pastoral Development

Institutions define, safeguard and enforce people's rights of access to goods and services, and guarantee good governance, thus giving people the power to make claims on their government. Policy development should have relevance to the needs and aspirations of the citizenry. Institutional failure is therefore detrimental to both good governance and policy development for the pastoral economy.

Although beset by many unique problems, the generalisable mindset that pastoral areas are net consumption points and that they do not contribute much to the "national cake", and must therefore have little or no claim to it, is challengeable. It has been shown that pastoralism not only enjoys higher returns from labour than small scale agriculture, but it is also a more secure investment in a region characterised by climatic vulnerability (Ahmed, 1999). In addition, comparative international experience shows that Botswana, which has a third of Kenya's livestock now exports beef valued at US\$ 70 million annually, which accounts for 80 per cent of that country's total agricultural output (Internet Article: Botswana Livestock Production). It has been observed that Kenya's potential to export livestock products if exploited would earn more than what is currently earned by the tea and coffee exports combined (Omiti, 2001b). The role of the government must be seen in enhancing the productivity of the pastoral sector to enable it contribute more to Kenya's economic development while at the same time relieve the hardships experienced in pastoral areas.

Over the years, the government has reviewed many development and economic policies. However, most of these policies, especially in the agricultural sector, have had little success for the following reasons (Nyangito, 1998; KARI, 1997):

- A general lack of political will to implement proposed policies
- Sometimes government policy has been inconsistent and unpredictable
- Limited use of policy research in the formulation stage
- Limited involvement of all or key stakeholders (i.e., top-down approach)
- Investment policies biased against the agricultural sector
- Unfavourable macro-economic policies.

Furthermore, the legal and regulatory framework has been lagging behind economic policy reforms. Experience shows that partial policy changes in one sub-sector should be accompanied by corresponding changes in the other sub-sectors in a general equilibrium

context to promote growth (KARI, 1997). The dismal performance of the agricultural sector in the 1990s can be largely attributed to the failure to synchronise economic, political and legal reforms. In some cases, some of the reforms have been implemented without giving farmers and other groups adequate time to mobilise and organise themselves to take up the provision of some of the services. For instance, in the livestock sector, the government withdrew from provision of some animal health services like dipping and clinical services before the legal and regulatory framework was made conducive to private sector participation. There have also been unclear, inconsistent and outdated land policies (Mogoa et al., 2000; Azarya et al., 1999). At the moment, Kenya lacks a national land policy. A clear and comprehensive national land policy is necessary to guide the provisions in the Land Law, streamline the objectives and guard against contradictions and inconsistencies, as well as guide institutional implementers on how to exercise their discretionary powers (Nsamba-Gayiiya, 1999). Although still nascent in its outlook, the ongoing debate on land reforms should be informed by experiences in other parts of Africa. In the Sudan, for example, the colonial and subsequent African governments have maintained grazing lines and nomadic routes and corridors to prevent conflict between pastoralists and cultivators (Ahmed, 1999). Kenya could adopt this as a long-term strategy towards conflict prevention between pastoralists and cultivators. For example, in Tana River district, land disputes and access to river Tana for livestock have been cited as the major causes of frequent clashes between the pastoralists and the farmers (Daily Nation, 2001, p. 1).

Although it is conducive for the integration of economies world wide, globalisation presents a formidable challenge to existing structures of governance particularly in Africa. The ability of people in developing countries to benefit from globalisation requires good governance (Pinstrup-Andersen and Babinard, 2001). Market liberalisation and global forces require new institutions, rules and regulations. Effective government interventions are therefore needed to guide the transformation of the agricultural sector in a direction that is beneficial to the poor. The government will be required to improve the competitiveness of the marketing services, by for example, distributing better marketing information to consumers, farmers, and marketing agents. At the same time, the government must reduce its participation in management, especially where it does not have a comparative advantage, to allow the civil society and the private sector to take an increasing role. While such a shift is necessary for some sectors, an effective public sector is a must in such areas as research, rural infrastructure, health care, education, enforcement of law, and the creation of public goods. This is needed to protect the poor from the shocks inherent in globalisation by implementing accommodating compensatory measures. (Pinstrup-Andersen and Babinard, 2001).

Several challenges might work to limit the effective implementation of the development options proposed in the fore-going sections. One concerns the willingness of the government to shelve the implementation of current economic liberalisation policies, which are already at an advanced stage, in favour of the pastoral sector. This is unlikely to happen in the near future given the linking of donor aid to economic liberalisation. At the same time, given the lack of a political voice as well as the historical marginalisation of pastoralists, it is unlikely that their problems will get the attention that they deserve from the government. Second, who will pay for these strategies? Kenya, like other developing countries, is currently going through hard economic times. This limits its financial capacity to cater for the needs of its growing human population, leave alone the pastoral sector. Other stakeholders such as the private sector, the church/mosque, NGOs and the civil society should therefore come in.

Three, inclusion of pastoralists will require the use of participatory approaches. While these approaches strengthen the capacity of local communities to analyse their local situation, they are also costly, time consuming and require an enabling environment to take effect (Hesse and Trench, 2000). Thus, the government, donors and other stakeholders need to adjust their institutional attitude as pertains to project cycle and financing, to ensure that development interventions are informed by, and pertinent to, local needs, cultural norms and local political realities. Finally, we need to ask, are pastoralists genuinely interested in improving their lot? And if so, what roles will they play? If they are not, what incentives are needed to get them interested? If we bear these issues in mind, we might get closer to finding a long-term solution to the development problems in pastoral areas, both in Kenya and in the diaspora.

4.2 Recommendations

In order to improve the pastoral sector, five broad recommendations are proposed:

1. Water, pasture and animal health care should be improved as a priority, for example, through subsidies and promotion of indigenous institutions.
2. There is need to improve livestock markets through the provision of marketing information and the necessary infrastructure.
3. The security situation needs to be urgently addressed at regional, national and international levels.
4. The national food policy should be reviewed in order to enhance pastoral food security.

5. The legal and regulatory frameworks also need to be reviewed to improve the utilisation and conservation of land and other resources in arid and semi-arid areas.

4.3 Conclusion

This paper has attempted to show how institutional failure has constrained the development of the pastoral economy in Kenya. The resulting economic stagnation, poverty, conflicts and destitution paint a gloomy picture for the future of pastoralism in Kenya. Practical solutions are therefore urgently needed to forestall the situation. Such solutions should be informed by first understanding the coping mechanisms of pastoralists and then trying to enhance them. However, the implementation of preferred solutions could be impeded by, among other things, financial cost and socio-political implications. Nonetheless, bold steps will have to be taken if the pastoral economy is to continue contributing to the national cake. At the same time, any solutions found will have to be people-centred, all-inclusive and outward looking, and yet be sensitive enough to the dignity of pastoralists. Concerted efforts are therefore called for from all stakeholders, government, donors and the civil society to promote pastoral development in Kenya.

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