

PASTORALISM AS A CONSERVATION STRATEGY

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ACRYNOM

ANP	Awash National Park
BOA	Board of Agriculture
CSO	Civil Society Organizations
EPA	Environment Protection Authority
EPD	Ethiopian Pastoralist Day
EWCO	Ethiopian Wild life Conservation Organization
FAO	Food and Agricultural Organization
FARM	Food and Agricultural Research Mission
FDRE	Federal Democratic Republic of Ethiopia
GDP	Gross Domestic Product
ILCA	International Livestock Center for Africa
MDG	Millennium Development Goal
NERDU	North East Rangeland Unit
PADS	Pastoral Area Development Studies
PASDEP	Plan for Accelerated and Sustainable Development to End Poverty
PFE	Pastoral Forum Ethiopia
PRSP	Poverty Reduction Strategy Paper
RDPS	Rural Development Policy and Strategy
SDPRP	Sustainable Development and Poverty Reduction Program
SNNPR	Southern Nations
RDPS	tionD.0k gela Organization

rendered the country suitable for human settlement based on a big range of crop production systems and Pastoralism.

The major source of rain in Ethiopia is the Monsoon (westerly) wind systems

expansion of the road network, with a target of constructing almost 20,000 km. of new roads by 2010, (90% of them in rural areas) and improved maintenance so that 84 % of the network is in good condition. During the program, study and design for 738 towns, construction works for 514 towns and rehabilitation works for 228 towns will be carried out.

In the health sector, major emphasis has been given to the Institutionalization of Village Health Services Package. This includes, immunization coverage reaching 60%, well above the target of 55% for 2003/04; contraceptive prevalence slightly exceeded the target coverage rate of 23.5% and coverage of the health system, defined as share of the population within 10 km. of a health facility, increased from 61.3% in 2002/03 to 64% in 2003/04.

With regards to water supply and sanitation and access for the national water supply for the year 2003/04 stood at 37.9%, slightly higher than the 36.1 % targeted for the year. Water supply will be expanded to reach 85 % of the population (compared to an estimated 42% today),

Power supply will be increased three-fold in the PASDEP period, with the construction of 5 major new dams, and addition of 668 MW of generating capacity. A major rural electrification program is underway, so that at the end of the period it is expected that 50% of the population will have access to electricity, compared to about 17% today. A major telecommunications initiative is under way, which will result in increase of subscribers at the end of PASDEP period in fixed telephone, cellular mobile and internet to 4.264, 1.64 and 0.15 million from the current level of 610,317; 410,603 and 15,000 respectively.

The government is considering capacity building as one of the key to the success of the SPDRP and MDGs. The focus is on democratic governance (Improved Law Making, Human Rights, Elections, Transparency and Judicial Independence and Women's Empowerment), justice system reform, and decentralization.

The SRDPRP has also placed a strong emphasis on the importance of gender equality for development and poverty reduction. Significant number of initiatives is underway, including preparation of the National Action Plan on Gender and Gender Budget Analysis.

Significant progress has been made in HIV/AIDS prevention through initiating the National Biological Survey, which will provide the essential data needed to refine Ethiopia's, AIDS strategy. That will be completed in 2006. In addition, a comprehensive HIV/AIDS monitoring and evaluation (M&E) framework is published, to be used as an implementation manual.

3 The Pastoral Lands-Ecosystems

3.1 Pastoral Regions

According to PADS, 2005-study report, the Pastoral Regions are found in Afar,

Map 1 Location of the major pastoral areas in Ethiopia

Considering the environmental conditions, floristic composition, and productivity values, the rangeland resources of Ethiopia are categorized under 5 systems and 25 subsystems. The major systems include the foothills and depressions of Afar Region; the plateaus, riparian woodlands, wet areas and savannah lands of Somali Region; the Borana Plateau and the agro-pastoral midlands of Oromiya Region; the riverside grasslands, lowland steppes and agro-pastoral midlands of SNNP Region; the flood lands and uplands of Gambella and Benishangul Gumuz Region.

Based on ecosystem analysis, the study result has appraised the range quality in terms of three categories of grazing suitability, namely: Good (from 760 to 1140 kg of utilizable vegetal production per hectare per year); Medium (from 350 to 760 kg of utilizable vegetal production per hectare per year); and Poor (less than 350 kg of utilizable vegetal production per hectare per year). The range quality survey from the 48-sample pastoral districts was broadly categorized as good (20 %), medium (24 %), poor (51 %), and other (5 %).

3.2 Human population and Distribution

Based on recent PADS, 2005 estimate, the total pastoral population in Ethiopia is 9.8million (7 % of the total) composed of 29 Nilotic and Cushitic ethnic groups found in the lowland parts of the country (Annex 2). Out of the total, about 93% are considered to be pastoralist and agro-pastoralist. The rest are either hunter-cultivators or pure cultivators. The rangelands provide employment and investment opportunities and are source of meat, milk for residents of approximately 24 major towns and cities within and adjacent to lowland areas (NRLDS, 1995).

3.3 Rangeland Plants

3.4 Livestock resources

Despite these good merits their productive performance with respect to milk, meat etc is reported low. However, Roy and Behnke (1993) quoting Cousins, 1985 have cited that "Indigenous African Systems of livestock production on natural rangelands are generally speaking as productive as or more productive than commercial ranching in similar environments". In comparable unit of measurement of protein, calories of energy or cash value and with the output expressed on ha basis, the productivity of Boran livestock is 157 % is higher relative to those in the Kenyan ranch.

According to Coppock (1994), the lowlands play vital role in the national livestock economy. They provide about 20% of the draft animals for the highland farming system and smaller number of animals for finishing on crop residues and crossbreeding activities in dairy development programs. Besides supporting rural and urban lowlanders with milk, meat, employment and investment opportunities, livestock (cattle and sheep) make up over 90% of the legal exports of live animals (Coppock, 1994). Livestock are primarily kept as source of food, cash, security and insurance, social and cultural identity, raw materials, medium of exchange, traction power for the mixed crop-livestock farming system and manure.

Livestock property is skewed in the pastoral complex, as 30% of the families own 60% of the total herd. The "upper rich category" represents 4% of the population but owns 13% of livestock wealth. The poor majority makes up 70% of the pastoralist with just 40% of livestock. In the middle, the relatively affluent or self-relying category concentrates 26% of the human and almost half of the livestock population (PADS, 2005). Per capita livestock holding that define the wealth status of a pastoral family varies from 15 TLU in depleted Afar rangeland territories to over 25 TLU in lush Gambela flood plains.

The total capital value of Ethiopia's pastoral resources is estimated at about US\$ 2.7 billion (1,600 \$ per household and 330 \$ per caput). These include, pastureland (capitalized fodder-output value): 1,520 million US\$ (900 per household), water infrastructure: 40 million US\$ (wells, boreholes, cisterns): 22 per household, livestock: 770 million US\$ (450 per household), farmlands: 250 million US\$ (150 per household), excluding fallow land) and other assets: 150 million US\$ (90 per household). In 2001-03, the gross product 0 TD-.0002 TTs154()]TJ-14

flocks and 2% from camel stock. The net milk output amounts to 684,000 tons yearly. About 20% of the meat and 70% of the milk off take are self-consumed.

Subsistence and market-oriented market systems are common in the pastoral and agro-pastoral areas. Generally, milk especially cows milk is used for consumption in liquid form, for sells and for making butter. Sheep and goats milk is mainly for home consumption. Camel milk is for home consumption and is taken to the market in very rare cases. According to FAO (1998) estimate as quoted by Yacob (2002), off take rate for the country for cattle is 8 %, amounting to between 2.2 – 2.8 million head /year which is one of the lowest in Africa proportion to the livestock number. Off take for sheep and goats is estimated at 41 % and 34 % respectively or at about 15 million shoats annually. The PADS

within the pastoral areas, 28.8 thousand tons marketed and consumed in Ethiopia outside the pastoral areas and 10.8 thousand ton exported as fresh and processed meat .

3.5 Water Resources

Ethiopia's surface water potential exceeds 122 billion m³/year. Major rivers of the country are eight river basins namely, Abay, Omo-Gibe, Baro, Dawa, Genale, Wabishebele, Awash and Tekeze. The lower courses of these rivers, With the exception of Tekeze (Atbara) river the rest are found in the pastoral rangelands. Pastoral areas exist in all river basins, as the Awash, Danakil, Genale-Dawa, Ogaden, Omo and Wabe-Shebele. All rivers but the Awash flow into neighboring countries (PADS, 2005).

The total surface of the 18 natural and artificial lakes in Ethiopia is about 7,500 km². Seven of the eight major natural lakes are found in the Rift Valley. Ethiopian lakes are rich in fish. The maximum sustainable yield of fish from the major lakes is estimated to be about 35,300 tones per year (EPA, 1997). Most Ethiopian lakes except Zeway, Tana, Langano, Abaya and Chamo are terminal lakes.

Ethiopia has a rich water resource potential, but water can be locally very short in many places. The irrigation and the hydroelectric generation potentials of the 12 major basins crossing the pastoral areas of the country in terms of potential gross irrigable is estimated at 3,495,795, net area under irrigation is 161,010 and under utilization is 4.6 % (PADS, 2005). The potential for hydroelectric generation is estimated at 135,311 GWh/year while actual utilization is 1,098 GWh/year (1.25 % of the total).

3.6 Flora and Fauna

The lowlands are rich in flora and fauna biodiversity. Ethiopia has the fifth largest flora in tropical Africa of which 12% are considered to be endemic. Similarly, with regards to fauna, out of the 24 endemic bird species, 19 are shared between the lowlands and the highlands (EPA, 1997).

3.7 Cultural Heritage

The cultural heritage resources make the lowlands more important for historians, socio-anthropologists and archaeologists. Prehistory and archaeological interests and a range of cultural heritage including movable, immovable, historical, and spiritual and the presence of traditional technologies have made the lowland parts of Ethiopia more valuable (EPA, 1997)

3.8 Mineral Resources

In terms of mineral resource development that will contribute a lion share to the pastoral communities is addressed in the PASDEP. According to the report, limited mineral explorations conducted in Ethiopia have shown deposits of various minerals, which includes, gold, tantalum, platinum, iron, nickel, potash, soda ash, and different industrial and construction minerals, gemstones, natural gas, salt, mineral water and geothermal energy. Similarly, minerals such as soda ash, kaolin, quartz and feldspar, dolomite and silica sand reduce the import of such minerals and saves foreign currency. The Calub gas (in Somali region) condensate if properly developed and used can potentially reduce the import of petroleum products, serve as a raw material for fertilizer production, and can be used for power generation. Some of these have already been developed and are contributing to the national economy. For example, gold from a major single

open pit mine and silver from a further refining process contributed more than USD 40.7 million during 2003/04. The government has also earned US\$72 million from the privatization of Lege Dembi Gold Mine, the largest amount generated by the privatization process (PASDEP, 2005)

3.9 Wildlife Resources

Diversity in climate and topography has endowed the country with enormous fauna and flora. Record has indicated that about 227 species of mammals, 862 species of birds, 63 species of amphibians, 150 species of fish and 201 species of reptiles. Of these 31 species of mammals, 17 species of birds, 6 species of reptiles, 30 species of amphibians and 4 species of fishes are endemic to

Somali and Gambela. Some of the key challenges facing wildlife conservation in the pastoral areas are related to cultural influence (killing for fame), conflict over grazing resources, and settlement in the conservation areas, poaching and possibility of disease transmission such as Anthrax from livestock to wildlife.

4. Pastoralist natural resource management and Strategies

In terms of resource management the Borana society (Boka, 1993) Afar and Somali societies are highly developed, organized and adaptable to the environment (IIRR, 2004). The responsibility lies on the council of elders in allocation and management of common resources; overseeing proper utilizations and redistribution of natural resources and wealth to ensure access to common resources; resolving disputes among individuals and sub-groups; and allocation of wealthy and conflict resolution. (See chapter 5 for detail on pastoral institutions and natural resources)

Grazing management

There is demarcated territorial division (Madda in Borana, Metaro in Afar, for grazing land to effectively utilize the natural resources (i.e., livestock, grazing and water management). Livestock/cattle group and the corresponding grazing areas are categorized under: Small and young calves (Jabi and Agoro in borena, young kids (bokele) in Afar) grazing on calf enclosure fenced and close to the home stead and looked by children aged 5-12 (calf enclosure known as kalo in Borena and deso in Afar). During the dry period moved to fenced areas to provide special care for feed and water. No big animal is allowed to go. Milking stock (Sera Hauricha in Borena, lactating camels (homa-areyu) in Afar), breeding bull and 1 or 2 oxen for sale are kept at homestead area and grazed at radius of 12 km during the day and return to village before dark. Because of shortage of labor, small stock of sheep and goats are also kept and grazed with

milking cows. When the dry period extends or drought progress the whole family will be forced to move to areas where grazing and water is considered better. Dry stock (Dhedda For cattle in Borena and dry camels (adi galla) in Afar,) as long as the herd is healthy move outside the homestead area and they constitute the mobile herd. Young men above 14 years of age herd them. Seasonal changes I particular availability of water determine mobility in particular dry and wet season

The range management practices by Dasegnetch, Hammer and Nyangatom in South Omo of southern region is the use of traditional grazing areas in their own territories during the wet season. At times of dry season, they move close to the Omo River, and to areas around Lake Turkana (Dasegnech pastoral communities).

Prior to mobility take place team of young men who are reliable well respected, gentle and calm can move long distance known as (eddo in Afar and sahan in Somali) will be selected to undertake the following responsibility: assess areas that has received rainfall recently; monitor availability of fodder and water; make estimate for how long the feed and water be adequate for the livestock, and check for livestock disease or security risks

Water Management

Use and management of rangelands is primarily determined by the presence and availability of perennial or seasonal water sources. For the Afar,' it is easier to control access to artificially dug water sources than natural ones. Water management user groups regulate and maintain rainwater harvested in shallow ponds (horoyo).

Similar to Borena, the Afar organize the labor work watering animals in deeper wells to avoid overcrowding, overgrazing and conflict. In drier areas and during dry and extended periods, herders water their animals less frequently in order to reduce the distance the animals travel and spent more time for grazing.

Rangelands provide multi purpose use of the rangeland plants that include for food, feed, firewood, charcoal, timber for construction, traditional medicine, shade, spices, gums, resins, dyes etc. Trees that are protected, including those used for rituals/meeting and praying place, shade, fodder, medicinal value and construction purpose. Planting new trees is not common among pastorals

communities. However, in normal circumstances pastoralists don't cut trees without approval of traditional law enforcement officials (fiema, in Afar). Those who break the law are punished.

For pastoral communities entirely depending on livestock herding, food security is synonymous to fodder security. Common ways of fodder security strategy includes, season migration, feeding tree leaves and pods at times of dry period, regular burning of old pasture and feeding of crop residues.

Other strategic approach in matching the available grazing land with livestock population is diversifying the livestock species with the available vegetation type preferably for more camels and goats and de-stocking of male animals, old and unproductive females.

There are traditional and religious ways (Afar and Somali) of supporting groups of pastoralist who lost their livestock due to drought, raids, and diseases. These social traditional social safety nets are commonly known as "Qaaran" in Somali; "Irbu" in Afar; and "Bussa Gonefa" in Borena.

Because of population pressure and resource limitation pastoralist are opting for other and better forms of livelihood diversification. This includes, camel renting in the case of Afars, cattle and sheep fattening, dry land farming, fire wood, charcoal and water selling, practice traditional medicine for human and livestock, sale of handicrafts, production and sale of salt, petty trade, and preservation of skin and hides. Voluntary formation of saving and credit groups is a growing activity.

4.1 Factors constraining the pastoral production system in managing the natural resources

Pastoral production system faces a number of natural, structural, policy and demand driven constraints resulting in economic, social and environmental problems. Some of the major underlying causes include population growth, recurrent drought, misuse of the rangeland resources and failures in past rehabilitation and developmental interventions. The resultant effect of the above problems has caused food insecurity, poverty, and instability in the system, degradation of the natural resource and the environment.

4.2 Contraction of the traditional pastoral territory

The lowlands/rangelands of Ethiopia, which are below 1500 meters elevation, are considered as the traditional pastoral territory. However, due to i) expansion of sedentary agriculture ii) expansion of agricultural projects iii) expansion of national parks inside the rangeland and encroachment of unwanted plant species iv) emergence and expansion of agro-pastoralism. v) conflict over the rangeland resources has reduced the total area of the rangeland and contributed to mis-management.

4.2.1 Expansion of sedentary agriculture

Encroachment of sedentary agriculturist, mainly crop cultivators, into the rangelands has restricted mobility and contributed to feed shortage. This can be observed in the different pastoral regions including the Afar, Somali, Southern Omo of SNNPRS and the Borena zone of Oromia Region (Beruk yemane, 2001). As a result, a large part of the rangelands considered to be prime grazing land has been under a constant pressure and threat from the neighboring and

parks and sanctuaries are established the pastoralist are not allowed to graze and water their livestock at any time of the year even during the dry period when feed shortage is critical. Besides, the pastoralist who is the traditional owners do not get substantial share or benefit from the venue generated (PADS, 2005). According to EWCO (1993) a total of 353,730 ha in Afar, 62,300 in SNNPR and 50,610 in Gambella Regions with a total of 466,640 ha of range areas have been converted to wildlife parks and sanctuaries.

4.2.4 Emergence and expansion of agro-pastoralism

The emergence of agro-pastoralism could be partly associated with the decline in range resources as well as decrease in both livestock number and productivity. This situation may have forced pastoralist to resort to agro-pastoralism

Though the area put under cultivation looks relatively small, the trend and impact is alarming. According to CEDEP (1999), 127,000 ha (out of 339,688 ha) in Teferi ber (Awbere) and 220, 000 ha (out of 619,940 ha) in Kebribeyah, Somali regional state have been converted to crop cultivation. In both Wereda the areas converted to crop farming range between 36-38% of the total available land.

In the Borena zone the practice of agro-pastoralism reached its peak during 1993, 1994 and 1995 in which most of the Boran lost their livestock. Beruk (2001) citing Oba (1998).indicted that an estimated 2-3.4% of the lowlands of Borana zone is considered to be under cultivation. The situation and trend is more or less similar in other Regions where the emergence of agro-pastoralism is eminent. In the Afar Region, besides the commercial size irrigated crop agriculture the Afar were and are engaged in both livestock and crop agriculture. With the assistance from the former North East Rangeland Unit (NERDU) and the current crop extension package coordinated by the Regional Bureau of Agriculture over 3,700 ha of land has been converted into crop cultivation using both rain and irrigation (Regional BOA, 1999).

According to the respective regional and zonal agricultural offices (1999) the following data has been collected. In Gambella Region an estimated area of 32,452 ha has been used to grow annual crops mainly cereals. In the same Region, particularly in the Jikow wereda, which is primarily dominated by Nuer pastoralists, crop cultivation has reached about 1400 ha (Socio-Economic study of Gambela, 1996). In Benshangul-gumz the area under cultivation is estimated at 38,718 ha and in South Omo (SNNPRS) the estimate reaches 58,503 ha (2.54%) of the total area.

Pastoral/agro-pastoral communities are not the only ones that practice cultivation of marginal crop areas. Refugees crossing the borders and settled in refugee camps are also engaged in crop cultivation. Though the size of cropland cultivated per household is relatively small (since refugees are not allowed officially to cultivate areas other than the plot allocated in their homestead) the refugees and returnees involvement in crop cultivation had increased rapidly.

Based on CEDEP (1999) survey, since the beginning of 1990, the number of households involved in crop production in Kebribeyah wereda of the Somali Region has reached 54%, while that of Teferiber wereda (Teferiber and Derwenaji) refugee settlement ranges from 15 to 20%. Similar results by CEDEP (1999) in Western Ethiopia namely Gambella and Bensangul Gumz Regions indicated that in the Pungido and Dima Refugee settlements (GNRS), almost half of the refugee population is engaged in crop cultivation. Similarly, in Sherkole refuge settlements (BSGNRS), about 10% of the refugee population actively engaged in crop cultivation.

In general, degradation of the rangeland eco-system is a serious threat to the pastoral areas of the country. *Prosopis juliflora*, *Acacia mellifera*, *Xanthium strumarium*, *Abutilon graveolens*, *Parthenium hysterophorus*, *Opuntia ficus-indica*, *Althernanthera pungens*, *Euphorbia tirucalli* and *Amaranthus spinosus* are

the major species that have invaded the rangeland. Many grass and herbaceous species have reportedly declined from the rangelands due to bush encroachment. In situ and ex situ conservation measures are recommended especially for the threatened rangeland plants (PADS, 2005).

4.2.5 Encroachment of unwanted plant species

Encroachment of bush and unwanted plant species has been considered as a menace to the deterioration and declining of the pastoral rangeland territories. Though the degree may vary, evidence of these phenomena can be observed in most of the pastoral Regions. According to Oba (1998), encroachment of woody bush species aggravated in Borana rangeland after the 1960's and worsened following a ban on the use of fire (Boka, 1993). In the absence of fire, which the pastoralists were practicing on a regular basis, grassland are invaded by bushes, reducing grass cover and creating deficiency of feed source for livestock (PADS, 2005).

Coppock (1994) reported that there are about 15 woody plant species considered encroachers in the Borena rangelands. The rangelands of Arero, Moyale and Liben weredas have relatively higher proportion of bush coverage. Major bush species in the rangelands include *Comiphora africana*, *Acacia brevispica*, *A. nilotica*, *A. drepanolobium*, *A. bussei* and *A. horrida*. Among the different bushes the rapid expansion of *Acacia drepanolobium* has been the most alarming. An estimate by ILCA (1993) put the area under bush encroachment in the Borena rangelands at about 40%, while about 10.5% of the total rangeland is considered to be in excellent condition (Gufu Oba, 1998) and is reserved for calves.

There are no accurate data as to the area and amount of unwanted plant species in the Afar Region. However, rapid expansion of *Acacia seyal*, *A. melifera* and *A. senegal* in the administrative zones of four and five as well as *Prosopis juliflora*

(Beruk, 2001) in zones three and one is of a prime concern to the Region. Moreover, *Prosopis juliflora*, which was introduced as a drought livestock supplement feed and for soil conservation in the 70s, is aggressively claiming prime irrigable cropland and rangelands adjacent to irrigated farms and water points. Current estimate puts the land coverage of *Prosopis* in Afar Region to be in the range of 25-30,000 ha (Beruk Yemane, personal estimate).

The expansion of *parthenium* a weedy plant species and commonly known as “congress grass” In the Somali Region, is rapidly encroaching both the rangeland and crop farms. The rapid expansion besides reducing the size of the range resources has brought a negative effect on the composition and consumption of milk (from goat, cow and camels) causing a bitter taste on the milk produced. In some instances, pastoralists have abandoned consuming milk produced by animals fed on congress grass.

According to local sources, it has been reported that range areas in South Omo, which were once covered with good grassland, have been replaced by unpalatable hardy grass and woody species. In some areas encroachment of bush and woody plant species have forced pastoralists to alter their livestock composition from grazing to browsing species with the proportion of increasing the number of small ruminants and camels (Beruk Yemane, 2001).

4.2.6 Conflict over rangeland resources

Inter and intra -clan conflicts over rangeland resources mainly grazing land and water points have partly contributed to the decline in the rangeland resources. This phenomenon not only reduces the resource, but also costs human and livestock losses as well as destruction of properties. The inter clan conflict stays for a shorter period of time and is often solved through traditional social organization. This usually happen among the big clans in the different pastoral

designed to ensure individual compliance with collective decisions through appropriate incentives or sanctions. Institutional arrangements thus create the framework for the formation of organizations that operate within permissible limits of such arrangements to effect collective actions (North, 1995, Brett, 1995). Swift (1996) on the other hand, defined institutions in pastoral societies as "those which exist without comprehensive formal recognition by the modern state; they are the habitual ways, not established in written law in which a pastoral society manages its every day affairs." In general, there is a consensus that among scholars these institutions facilitate social interaction by allowing individuals to cooperate and achieve common objectives for the common good.

Pastoral societies have adhered to certain organizational and institutional practices which govern the behavior of each member of the society and enhance solidarity and efficient utilization of resources (Bonfiglioli, 1993). In the struggle against harsh environmental conditions and risks, pastoralists have developed their own indigenous institutions, which handle all aspects of their social, economic, cultural and political lives. These institutions are based on clan ties and social relations where the clan chiefs like Ugaz in Somali, Kedo Aba in Afar and Abba Gada in Borana play coordinating roles in resource management, conflict resolution or prevention, and political and administrative matters of the communities. These institutions are governed by several indigenous norms and values that would ascertain smooth operation of the pastoral system in the arid and semi-arid ecological zones of Ethiopia.

Pastoralist societies have strong traditional forms of social organization, based on kinship. Each person is a member of a lineage group or clan. Members of these groups share resources among themselves and cooperate in economic activities.

Traditional Institutions govern the behavior of their members. They determine who has rights to which grazing areas, water and other resources. They manage

relationships among clans and sub-clans, and adjudicate disputes. The different pastoralist groups have different traditional institutions, so it is difficult to generalize about them. Most are based on lineage (groups of related people) or territory (where the person comes from), or some combination of these. The institutions vary even within a pastoralist society. For example, the Somali in Liban and Afar have a different system from Somali elsewhere.

Roles of the pastoral institutions in natural resource management

One of the most significant Borana indigenous institutions is the Gada system, which is all embracing and has important ritual, political, resource management and judicial aspects attached to it (Helland, 1998). The Gada subsumes all the indigenous Borana institutions in an integrated Borana worldviews and infuses those pragmatic institutions with the authority and legitimacy that they require to be effectively operational (ibid.). The other institutions include the Borana indigenous religious institution (Qallu), and resource management councils such as well councils (Kora Ella) and grazing councils (Kora dheda). The indigenous leadership discourages disagreements and encourages consensus based decision-making and peaceful co-existence in the community. Most issues are handled by elders at grass root level including socialization of young people, land allocation for cultivation, and deciding directions and time of mobility. These institutions have a prominent role in controlling and managing access and use of natural resources to ensure orderly and efficient utilization without compromising the needs of the future generation. The most important resources include pasture, water, salt licks, forest, wildlife and others for which the community developed rules and regulation to manage them. The scarce resources like water are given due attention and are the concern of the general public rather than individual. The principal sources of water in the Borana are wells. A Well Council carries out the overall management of wells appoints abba hirega (father of the watering order) who ensures controlled use of water by herders (Helland, 1980; Mengistu, 1998).

Wells are more controlled and the management is clan based rather than administrative/political territories. In the dry season, every Borana pastoralist moves to the wells of his/her clan and uses them. Since grazing areas around the wells are also reserved for the dr

controls and regulates ownership of and access to permanent water points especially wells, rather than the pastures themselves.

Herd splitting is the common practice in Borana herd management system. The first division is home based, warra, which mainly comprises lactating cows, other weak and sick animals (Coppock, 1994; Mengistu, 1998). They are kept near the homestead and brought back home for milking and are kept in enclosure during the night. The second division is the satellite herd called forra, comprising dry cows, bulls and other strong animals (Coppock, 1994; Mengistu, 1998). The splitting of herds requires labor allocation in a family to different livestock management activities. The warra herds always have priority over the forra herds regarding both access to water and pasture (Bassi, 1997).

Children and young men predominantly carry out the herding. Young children usually keep small stocks and warra herds while young men or older boys often tend forra herds. Herding in forra camp relatively requires more labor and mobility. Therefore, strong family members especially boys are involved (Coppock, 1994; Mengistu, 1998). Herd splitting helps to minimize pressure on land while ensuring access to pasture and water for the animals. Warra herds have priority over satellite based stock in access to grazing.

Most villages generally have a small area often on hilltop reserved for village calves. These reserved areas are called kallo, and trespassers run the risk of being fined (Hogg, 1992).

In Somali indigenous institutions are based on clan ties where the clan chief called Ugaz plays ultimate role in resource management, conflict resolution or prevention, and political and administrative matters of the community. Below Ugaz, in the hierarchy of leadership, there are elders who deal with issues related to the daily lives of the community at village level or Reeri. Ugaz position is inheritable, but sub clan leaders called Kaba kabil, compete for it and elders

decide who should take the leadership position. Gurti is also another institution that brings together representatives of different clans or sub-clans to resolve issues related to territories of clans and to mediate conflicts.

Three Resource management regimes, namely open access, private, and communal ownership of grazing lands can be found among Somali pastoralists. Resources like forest are open to everybody whereas some cultivable lands are private and some pasture lands are still communal. Somali natural resource management revolves around range and water resources that are important for their livestock. But the introduction of cultivation currently has brought some additional responsibilities to the clan leaders to administer the natural resources. The traditional institution and knowledge system that manages mobile livestock systems is being challenged by cultivation and settlements that block mobility routes or cause conflict between herders and cultivators. Grazing land is controlled by clans. However, the limits of clan territories are not clearly defined and subject to change over time. Members of a clan have the right to graze in the area of their clan. It is possible to graze livestock in the territory of another clan subject to agreement.

A recent phenomenon has been the enclosure of grazing land. This involves fencing of an area by an individual in order to conserve the pasture for own use or for sale. Such enclosures reduce area of land available for communal grazing. The practice tends to be more common where there is heavy pressure on grazing. Generally an individual has the right to enclose a piece of land in the area controlled by his or her own clan as long as the clan leaders agreed. The above changes have been accelerated by the influx of returnees to the region. Many returnees have taken up farming upon return as they lacked access to livestock and agriculture has been the only livelihood open.

Water sources for pastoralists in among the Somali pastoralists include wells, rivers, boreholes and cemented underground water cisterns called birkeds. Use

of wells is usually controlled by a clan with local clan elders solving conflicts regarding use.

Despite the fact that indigenous institutions are challenged by different endogenous and exogenous factors, they are still lingering and trying their best in mobilizing community for natural resource management. For instance, when some labor investment is required to excavate wells or dig ponds, youth are

6 Risk Mitigation and Resilience

Pastoralism in Ethiopia has survived for centuries despite the severity of various risks prevalent in the arid and semi-arid environment in which it has to cope with. Risk and vulnerability in pastoral areas in Ethiopia arise from many factors such as drought, market fluctuations, bans on livestock trades, violent conflict or insecurity, disease and political shocks and poverty (Cossins and Upton, 1987, Bonfiglioli 1992, Coppock 1994, Desta 1999, Desta et al. 2002, Desta et al. 2004). Severe drought, fluctuations in marketing conditions and political shocks and violent conflicts are the major sources of risk among the pastoralists in Ethiopia. Drought is the most persistent risk faced by pastoralists that threatens

strategies are conservation friendly. In most cases they have different areas allocated for the dry and wet season grazing to optimize sustainable use of the available resources.

Strategies relating to species diversification enable pastoralists to utilize the available forage effectively and to benefit from the variation across species in terms of their vulnerability to drought and other types of shocks. It is often the cattle and the sheep which are grazers succumb to drought situations faster than the camel and the goats. In some cases after drought, since smaller stock reproduce more rapidly, allo

The Borana people who live on the Borana plateau in southern Ethiopia constitute 10% of the pastoral population in the country. The plateau is dominated by semi-arid climate. The vegetation cover is mainly savanna containing a mixture of perennial herbaceous and woody vegetation. Pastoralism has supported the Boran for hundreds of years. The gada system, clearly defined territorial organizations, and well established traditional institutions were used to maintain peace and order, strengthen solidarity, and resolve internal and external conflicts and oversee the proper utilization of the grazing, watering and other natural resources (Hogg 1992).

The warra and forra herding strategy used by the Borana, allocation of dry and wet season grazing areas, and regulations pertinent to use of deep wells have enabled proper and efficient use of grazing resources. The various kinds of traditional social sharing and mutual assistance mechanisms are useful to spread risk among households, communities and clan members among the Borana of Ethiopia (Oba, 1994).

Use of grazing lands and water resources, and movement of livestock in normal or in periods of drought, locations for homesteads, enclosures, farming areas, and sharing of resources are administered by the various institutions under the Gadda system (Coppock 1994, Helland, 1982, Desta 1999). The old traditions of sharing in Borana (Buusa Gonofa) have a profound impact in making poor households less vulnerable to drought and other shocks.

The Boran generally split their herds into 2 groups commonly called the forra and warren (Atsedu 1990, Assefa 1990). The forra herd is basically the dry herd (i.e., bulls, immature > 2 years old, and dry cows) while the warra herd constitutes the milking cows, calves, and immatures < 2 years old (Coppock 1994). For most of the year the warra herds graze close to the olla and the forra herds graze further away where resources are more plentiful. There are different areas exclusively

designated for warra and forra use to avoid over utilization and degradation of a particular area. At times of drought the immediate response to by the Boran is to shift in the size and composition of warra and forra herds (Donaldson 1986). They move a portion of warra animals to join the forra herd where forage resource is relatively plenty. The proportion comprised by the forra herd then increases as a drought persists and as long as forage remains available in forra areas. At other times they bring forra and warra herds together to utilize scarce labor. By segregating herds according to age and sex, and spreading them over accessible areas, the Boran traditionally derived the maximum use of available grazing resources without deteriorating the natural resource base. Borana have been using fire to maintain the health of the rangeland. Fire has been effective and less expensive range improvement technique for savanna type eco-systems. At the same time fire controls tick infestations and encroachment of unwanted vegetation species which affects productivity of livestock and the rangelands.

The Borana have an efficient water-use system (Helland 1982, 1997). During the cool dry season herders move their animals

neighbors practice temporary redistribution of milking cattle during drought or other calamities. The most complicated form of buusa gonofaa is “hirba” which literally means replacement. Hirba is practiced at the clan level. Legesse (1973) noted that wealth redistribution and mutual assistantship mechanisms were vital institutions that have kept the patriarchal Borana system intact for centuries.

The Borana have an elder led conflict management mechanisms. They have a structured institution under the leadership of the aba Gada to negotiate and mediate peace within the same clan, between clans and between ethnic groups such as the Borana oromo and the Gari Somali. By negotiating peace the Boran increase their mobility and open up access to grazing resources of the neighboring clans or ethnic groups. The same institution has been used to advocate for government policy decisions to protect their interest.

The Afars pastoralists occupy the north eastern arid land of Ethiopia. The vegetation cover in Afar is dominated by species that include dwarf shrub grassland, shrub grassland and dry thorn bush land. Livestock composition is diverse but tends to be dominated by browsing species such as camel and goats that forage from woody vegetation. There are several clans in Afar community. However no clan has its own territory.

The Afar pastoralists similar to the Borana are exposed to various risk factors

affecting Afars livelihood including but not limited to resource management, marriage arrangements, conflict management, and external relations.

Committees are assigned and make decisions at any time whenever appropriate with regards to natural resource management, conflict resolving, etc (Kebebew et al 2001). During drought incidences, young men are selected within the community to assess the condition of grazing and water and propose to the community to which area to move. They report back to the community with a comprehensive proposal about the situation with due consideration of the availability of feed both in quality and quantity, and estimate for how long the feeds and water sustain a given number of livestock. The communities' elders and the Medaa members draw plans on how to economically utilize the resources. They decide on the number of livestock and length of time to stay on the selected area.

Living as they do in remote area, communication is vital to the Afar. Their traditional communication system is called dagu (IIRR, 2004). This system enables information to be passed from one person to another via either acquaintances or strangers. Dagu enables people to find where pasture and water is available, and warn others of threats such as an impending drought, insecurity or diseases. It is also used to pass on information that people have heard over the radio, or to share market information. It helps livestock owners decide where to sell their animals and at what price.

The Afar pastoralists have developed a comprehensive social security system that warrants sustainable livelihoods for vulnerable households (Kebebew et al 2001). They have a wealth redistribution mechanism whereby the better off part of the community contribute a number of livestock, not only to keep the household surviving, but also to upgrade the socio economic condition of the household and reduce its vulnerability to shocks. Clan members are expected by the Adaa to raise livestock to assist needy households reestablish themselves.

Any household is entitled to obtain support once. A monitoring system is in place to inspect whether or not the household manages the acquired resources (livestock) properly and wisely. If some families do not have enough to eat they have the right to get food from the others who do have enough.

The Somali pastoralists are the largest group of pastoralists in Ethiopia in terms of number of livestock holdings and area they occupied. They inhabit the south eastern part of the country which is predominantly arid (Sugule and Walker 1998). The main sources of risk and vulnerability among the Somali pastoralists are not different from the other pastoral groups. The Somalis are however much more affected by conflict, and market fluctuations and ban on export livestock trade than the other groups (Devereux, 2000). The Somalis have been using

informal transfer is called ciyi which is distribution of

7 Compatibility with other forms of land use

Best use of rangelands in pastoral areas is achieved through the use of extensive pastoral livestock production with species diversification to use different ecological niches. The Afar have traditionally classified rangeland use into livestock suitability ratings using different parameters that span from analysis of vegetation composition to feeding preferences of domestic livestock. Different species of animals do have different body requirement and use different species of trees, shrubs and grasses (Tesfaye et al. 2004)

The Afar exercise careful timing of grazing to safeguard plants during seed production, mainly because they know well the ability of rangeland to replenish itself from soil seed bank reserves. However, currently they are unable to apply this, due to the aggravating pressure on the rangelands caused by other forms of land use including cultivation, and plantations. Since the last 4-5 decades, cultivation has been encroaching into prime grazing lands of the Afar pastoralists. Such conversion of prime rangelands into arable lands inevitably reduced the vegetation cover, increased number of people who wanted to cultivate land, contracted the traditional migration routes, and further pushed the pastoralists to less potential lands. In the last 3-4 years the need to cultivate rangelands is being introduced to other pastoral territories in Afar. As a result a large proportion of communal prime grazing lands are already individualized in response to the increase in the deteriorating food security situation. The changes in land use and the resultant pressure are accompanied not only by shifts in herd size of a pastoral household, but also the composition of the herd.

Divergent interests on the use of the rangeland are also observed between pastoralists. The need to initiate cultivation is justified by the fact that traditional

effective on the basis of mutual consultation and land use principles and should consider longer-term ecologic

cycles or growing pastoralist populations. Traditional pastoral communities tend to have fewer resource-related conflicts than communities experiencing a rise in crop cultivation. And the incidence of resource conflict is unrelated to herd size. The traditional pastoral system appears more capable of mitigating resource related conflicts and of resolving them when they do occur, while such conflicts appear to be more frequent and less easily resolved where land use patterns are shifting away from traditional extensive grazing systems towards more diverse land use systems incorporating cultivation as well as grazing. Policies aimed at conflict management should focus on building effective institutional arrangements in such transition areas without undermining indigenous institutions that are crucial to the peaceful utilization of scarce rangeland resources in traditional pastoralist zones (Yirbicho et al 2004).

There are fundamental differences between agricultural and pastoral communities in the ownership and use of land. In agricultural communities, cases of individual ownership of land are predominant whereas different forms of

and the decrease in the size of the land due to conflict is leading to scarcity of available rangeland resources, thus putting to much pressure on wildlife conservation activities. Furthermore, the problem in the Awash National Park and the surrounding area is aggravated by the frequent drought. The livestock and wildlife in the study area interact in many ways such as grazing competition, soil/pasture degradation, disease transmission and crop damage. Therefore the problems are multi-faceted, and the solutions can only come through a holistic approach. There is a dire need for the formulation of a land use policy which also incorporates co-management of resources, sharing of responsibilities, participation in decision making and joint sharing of grazing, forest and water resources. In this respect, consistent policy and feasible options should be established for land use, conservation, and eco-tourism.

Community and stakeholders dialogue is very important to establish healthy relationship between community and stakeholders. Community participation in design, planning, implementation, and monitoring and evaluation of development interventions is vital. There are ample opportunities to tourism development in the area because of the proximity and various scenic features in and around Awash National Park. Community based tourism has to be initiated through active involvement of the community and stakeholders. In addition, community benefit sharing, access to resources, in the park and state farms could help a lot towards a successful conservation and development in and around Awash National Park. E.g. use of cane tops, periodic harvest of grass, access to park for medicinal plants etc.

Park Zonation has to be done with community and stakeholders consultation. This has to include planning of activities that are going to be implemented in each zone stating the responsible actor for conservation and development with psypPark.c.0423

8 The Enabling Policy for Pastoralism

8.1 Brief historical background of policies

There is long established tradition of considering Pastoralism as backward way of life and people who depend on it for their livelihood as inefficient land users, aimless wanderers and lawless. Pastoralists are blamed for damaging the rangelands through overstocking, mismanagement and following economically irrational decisions. Hence, Government pastoral policy for long holds an assumption that pastoralists resist change, are irresponsive to market and so on (PFE, 2006b).

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Since the inclusion of pastoral lands into the central government of Ethiopia during emperor Minelik II, the governments of Ethiopia have been following different policies and strategies concerning Pastoralism. Most of these policies and strategies were based on the assumptions that that the pastoral lands were considered no man's land, since the users of land were not sedentary. The feudal government gave a legal and constitutional recognition of this assumption in its 1955 revised constitution and 1960 Ethiopian civil code that made all land occupied by pastoralists state property. Thus under the 1955 revised constitution, it was provided:

resettlement schemes were carried out at the expense of nomadic pastoralists. The socialist state went further to control pastoralists' involvement in the market by institutionalizing a quota system in which each pastoral associations has to supply a given number of animals at a given period at state fixed prices to the state run livestock enterprises to feed the urban consumers and for export to earn hard currency. For instance, projects like the third Livestock Development was used to a certain extent to (Desta 2006) enhance the government policy of ranching, settlements, quotas to supply the markets fully controlled by the state, etc.

All the pastoral development projects during the imperial and dergue regime were implemented in a policy environment of taking livestock development synonyms with pastoral development. The projects reflected to a certain extent the regimes perception of pastoralism as backward production system that needs to be modernized and restructured. However the projects attempt to restructure the traditional pastoral production system has failed completely.

After the demise of the feudal system in 1974, the military government introduced a new administrative structure and the pastoral areas were divided into a number of Pastoral Associations to implement the principle of socialism. At each Pastoral Association, government representatives have been elected and given political, economic or resource management, judicial, and executive powers. The traditional ways of conflict resolution, resource management and the accumulated knowledge of the pastoralists about the ecology and resource management were disregarded and in some cases, forceful sedentarization was attempted (waktole 2002).

The 1975 rural land proclamation nationalized all rural lands and vested ownership rights in the state. In effect, the regulation replaced the role of the indigenous leadership of pastoralists and their representatives by pastoral

The preamble: " we the nations, nationalities and people of Ethiopia strongly committed , in full and free exercise of our rights to self determination, to building a political community founded on the rule of law and capable of ensuring a lasting peace, guaranteeing a democratic order, and advancing our economic and social development."

Article 8(1): in this sub-article, it is stated that "all sovereign power resides in the nations, nationalities and people of Ethiopia.

Article 8(3): This sub-article declares that " their (nations nationalities and people of Ethiopia) sovereignty shall be expressed through their representatives elected in accordance with the constitution and through their direct democratic participation."

Article 40(5): "Ethiopian pastoralists have the right to free land for grazing and cultivation as well as the right not to be displaced from their own lands."

Article 41(8): this article recognizes the rights of pastoralists to receive fair prices for their products that would lead to improvement in their conditions of life, which also is "the objective that guides the state in formulation of economic, social and development policies."

Article 50: relates to granting of power "to the lowest units pf the government to enable people to participate directly in the administration of such units"

Article 88: "Government guided by democratic principles , shall promote and support the people's self rule at all levels....promote their participation in the formulation and implementation of socio-economic policies and programs,...shall provide special assistance to the people least advantaged in economic and social development" .

These are some of the articles in the constitution which specifically reflect position of the government regarding pastoralist interest. The development of the policies, strategies, plans, and programs since 1991, however, require strict scrutiny as to how the government addressed the issues pertaining to pastoral development and Pastoralism. Several programs and strategies were developed by FDRE. One of these was the 1993 initiated Agricultural extension program, which was heavy on packages for intensifying crop production, and had little mention of defined programs in pastoral areas. It did however became

instrumental for the establishment of a pastoral unit within the extension department of the then Ministry of Agriculture. This unit remained in active until early 1999, where it drafted the pastoral and agro-pastoral extension program. The draft was discussed at Regional and National workshops and a people centered development approach was developed- a significant deviation from the resource-centered development direction that has been characteristics of earlier programs.

FDRE has different policy documents that have attempted to include pastoral areas in the national development agenda. Ethiopia prepared the first PRSP, called SDPRP in 2002 and the second PRSP called PASDEP in 2006. The government reiterated its commitment to poverty reduction and laid a framework for tackling poverty in these two key strategic documents.

The PRSP process in Ethiopia has created an important opportunity to reflect and voice the issues of concern to pastoralists. The Government has also attempted to reflect the voice of the pastoralists in the first PRSP, called SDPRP. Although the attempt made by the Government is encouraging, there were concerns. According to the PFE² (2006), firstly, the chapter on pastoralism was only partially considered in the Final PRSP; seco

In the second PRSP, the Government has come up with a document called PASDEP. This latest document has considered some bold new initiatives and clearly articulated the strategy the Government will adapt towards addressing poverty issue in the country in the coming five-year period (2006-2010).

Another policy and strategy document, in which pastoral areas were given a section, is federal government's rural development policies and strategies (RDPS) document. In its sub-section it has emphasis on two aspects and referred to these as short-and medium-term and long term perspectives of pastoral development. In its short-medium development policy the government admits the importance of investing in pastoralism to improve the food security situation of pastoralists. It states that "Since the livelihood of the people is based on pastoralism, our development endeavor and activities must be based on it [pastoralism]" (RDPS, pp.138). It also acknowledges the usefulness of the traditional pastoral knowledge to manage pastoral resources, and it states "Without recognizing and basing our effort on **this knowledge**, attempting to improve livestock husbandry in this area can not be useful and achievable (RDPS pp.140). Some of the recommendations provided by the RDPS are:

Preparing and providing to the people a package that can build on their knowledge of livestock husbandry;

Training extension workers and provision of extension services that focus on indigenous knowledge of pastoralists;

Promote delivery of livestock services that take into account the pastoral mobility

Creating an efficient marketing system that can make the pastoral system market oriented

This document recognizes the rich ground and underground water resources that can be used for development, and considers livestock husbandry as one of the

Since the early 1900s, Ethiopia's grazing lands have been regarded as property of the State. This was formalized in proclamation No. 70 1944, in the 1960 Ethiopian Civil Code, and subsequently in the 1995 Constitution of Ethiopia. The 1975 Rural land proclamation can be cited as one of the major policy changes that has alienated the pastoralists from their traditional institution and ownership of land. The major outcome of the 1975 reform proclamation was the transfer of

and related to wild life were: Environmental protection Policy in 1997, Pro. No. 94/1994—conservation development and utilization of forests, Pro. No.192/1980 – forest and wild life conservation and development, endangered species of wildlife commemorative coin regulation of 1975, Regulation for wild life conservation (Legal Notice No. 416/1972 & 445/1974), wild life conservation regulation of 1972, Wildlife conservation order of 1970 (order No. 65 Of 1970, and the gazette notice for National Parks: ANP (order No. 54/1969 and Semien National Park 59/1969, a proclamation N0. 61 of 1944-a proclamation to make provision for the preservation of the game. This proclamation was enacted as a result of external pressure-concerned with controlling hunting so that endangered species can be saved and conserved.

Although these laws and regulations seem to have dynamic feature, they were not strong enough in addressing conservation issues such as the Awash Park and wildlife inhabitants. The institution in place-the Ethiopian Wildlife Conservation Organization (EWCO) although established in 1960, only gained autonomous status in 1970, as the Federal agency that has responsibility to "establish, develop and administer national parks for wildlife. However, due to the process of decentralization, EWCO's responsibility has been reduced with majority of protected areas being handed over to the regional governments. Only two parks were officially gazetted to operate under Federal umbrella. It is clearly seen that over the year's wild life resource has declined drastically resulting in irreversible degradation of Ethiopia's natural ecosystem. Although the legislation prohibits community use within national parks, as outlined in the 1972 wildlife conservation regulation (Legal Notice: No.416), lack of capacity in implementation of policy appears to be one of the drawbacks for further development of the park.

However, recent development in the draft legislation indicates a slight change in attitude over the previous ones. Responsibility for wildlife management is being given to the regions, with EWCO monitoring the implementation of regulation,

issuing new policy guidelines and other responsibilities

increase local participation and democratization of decision making. This is expected to be achieved by a structural program and is projected to be fully operational in all regions by the end of 2008. The objective of the district level decentralization Program (DLDP) also includes deepening devolution of power to these lower level governments, institutionalising the decision making power, enhancing democratization process, promoting good governance, improving service delivery, and creating viable development centres at woreda (district) level. However despite such legal frameworks, there is still a lot more to be done to achieve this by 2008. In a study in 2005 (Oxfam, 2005) that focused on four regions, namely Amhara, Benshanful-Gumuz, SNNPR, and Somali, decentralization has not translated into action due to several reasons which include:

DLDP is seen as a capacity building activity rather than devolution of power

Decision making powers in areas of personnel and finance is largely withheld at regional level justified by lack of capacity at woreda level

Service delivery improvement expected as a result of decentralization process did not happen

Despite the legal power to woredas resource and capacity constraint has undermined the exercise of power

Issues of accountability and transparency are not adequately addressed

Gender issues have not been given the level of attention required

Lack of awareness and orientation regarding the issues of establishing partnership at local level. Non-state actors have not been given sufficient attention.

It appears that there is a mismatch between legal and political pronouncements and actual practices (Oxfam, 2005). This needs to be addressed as it very much relates to empowerment of marginalised groups including pastoralists.

c) Formation and reformulation of pastoral institutions: The government set up the pastoral affairs standing committee in Parliament, which oversees pastoral

issues in the country. The Pastoralist Affairs Standing Committee (PASC) is one of the twelve standing committees in the parliament of the Federal Democratic Republic of Ethiopia (FDRE). The standing committees in the FDRE, each with thirteen members, were established by proclamation no. 271/94. The mission of the PASC is to bring about positive change towards sustainable pastoral development through partnership with stakeholders. These partnerships will focus on the ways and means to: (1) Forge more reliable delivery of public services to pastoral areas; (2) foster more timely response to challenges and crises in pastoral areas; (3) promote greater protection and promotion of pastoral rights; and (4) seek ways to enhance and improve the economic, social, educational, and political conditions for pastoralists. The broad responsibilities of the PASC are three-fold: Legislation, oversight, and representation.

d) Regional pastoral commissions and Pastoral and agro-pastoral coordination offices: The mission is to improve the well-being of pastoral communities by carrying out people-centered, community based, holistic, and multi-sectoral development interventions. Efforts will be geared towards building the capacity of pastoralists to enable them to identify their own needs and priorities, and help solve their own problems by channeling public funds through producers or community organizations. Community- based natural resource management approaches are promoted, along with the provision of financial services and creation of good governance.

e) Established Pastoral area Development Department under the Ministry of Federal Affairs (MoFA): The Ethiopian Government has formulated the Pastoral Community Development Project (PCDP) in the pastoral area development department of the MoFA, to improve livelihoods, reduce disaster vulnerability, and establish effective models of public-service delivery in the pastoral areas of Ethiopia. The project is multi-phased over a fifteen-year period. The project interventions are designed to empower communities, districts, and regional governments to better manage local development, with the aim of increasing,

stabilizing, and diversifying incomes, improving infrastructure, and increasing access to public services. This will be achieved through a community-based development planning process linked to a community investment fund, which flows through local governments. The project will also support a participatory disaster management program to reduce the risk of pastoral communities to drought and other natural threats to livelihoods. Overall, the PCDP has three main components, namely: (1) Sustainable livelihoods for pastoral communities; (2) pastoral risk management; and (3) project support and policy analysis.

The sustainable livelihood component includes three inter-linked subcomponents as follows: (1) a decentralized empowerment process at community and government institutional levels; (2) a community investment fund (CIF) to finance community and inter-community driven activities that improve livelihoods; and (3) an institutional support program designed to build technical capacity across government agencies. Included in the pastoral risk management component are subcomponents such as: (1) Community-based risk monitoring; (2) disaster preparedness; and (3) contingency planning. A fund directed towards disaster

established in Oromia, Afar, Somali, and other pastoral regions. Gewane vocational center has been established to produce development facilitators who can work in pastoral areas. Although not yet so much effective there is a Pastoral Education task force in the federal ministry of education responsible to develop and implement pastoralists' friendly education model. These are all positive measures that would facilitate developments in pastoral areas.

9 CONCLUSION

The pastoral area of the country cover more than sixty percent (625,000 km²) of the total land mass inhabiting 10 million people composed of 29 Nilotic and Cushitic ethnic groups in seven Regional States. Administ

parks and sanctuaries in to the traditional pastoral areas is adding pressure on the natural resource base. In addition, the emergence and expansion of agro-pastoralism, encroachment and invasion of unwanted plant species, conflict over key rangeland resources have aggravated the vulnerability of the pastoral resources to the extent of threatening the livelihood system. The compounded negative effect on the resources and the mode of production has brought general decline and degradation of the resources and in particular in the production and productivity of livestock.

The pastoral systems in Ethiopia have been functioning well and used various adaptive and flexible strategies to cope with the various risks inherent in the system, and they have survived supporting human livelihood for centuries. There have been also pastoralists' traditional institutions that helped and administered efficient and rational utilizations of resources available in the arid and semi-arid environment. However, the ability of the traditional mechanisms to manage risks and the indigenous institutions that govern administration of grazing, water and other resources has been weakened over time.

The traditional risk management strategies are becoming less effective in the face of the emerging situation of growing population pressure, increased frequency of occurrences of shocks such as drought, poverty, and political interferences such as introduction of pastoral associations which are alien to and inappropriate for managing extensive livestock production systems and Pastoralism which is more than an economic activity. In some case local institutions do not have the authority to impose fines on resource abusers and norm violators. This is true among different pastoral communities of Ethiopia. Elders in pastoral areas in Borana say that they have become ineffective because the power is with the PA (Desta 1999, Waktole 2002). This is a dangerous point where misuse of resources might lead to externality and degradation of the lands. The traditional pastoral institutions are run by elders with accumulated knowledge of the ecology over life experiences. They were

created to safeguard the interest of the community and are accountable to the community, which they are part of, and necessitated, by the social, economic, ecological and political realities of the local people. On the contrary newly introduced institutions such as pastoral associations were primarily created to enforce government rules and regulations which may not be always to protect the interest of the pastoralists (Waktole 2002).

Currently both the traditional and the newly introduced institutions are operating

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11 ANNEXES

Annex 1. Area, number of Zones, Districts and Population by Pastoral Region

Pastoral Regional States		Area km ²	Zones	Districts		Population (July 2003)
				Total	Pastoral	
1	Afar*	90,400 (*)	5	29	29	1,301,000
2	Benishangul Gumuz	48,290	3	20	3	580,000
3	Dire Dawa	1,195	1	2	1	357,000
4	Gambella	25,800	3	8	5	228,000
5	Oromiya	353,000	12	180	34	24,395,000
6	Somali*	325,000 (*)	9	44	44	4,002,000
7	SNNP	112,340	9	77	6	13,686,000
Total		956,025	42	360	122	44,549,000

(*) Estimated area

Annex 2. Area, number of Zones, Districts and Population by Pastoral Region

Pastoral Regional States		Pastoral Districts			% of the total population
		number	area (km ²)	population	
1	Afar*	29	29,430	1,301,000	13.3
2	Benishangul Gumuz	3	8,410	40,640	0.4
3	Dire Dawa	1	1,200	108,570	1.1
4	Gambella	5	17,330	133,600	1.4
5	Oromiya	34	152,070	4,007,950	40.8

Annex 3. Overall land use and cover type patterns of 48 sample Pastoral Districts



