

*Current Status of Forests and Woodlands in Somaliland
Threats and Opportunities*



***SES Fact-Finding Mission to Somaliland
August / September 2010***

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Note

The Somali Ecological Society, started in Mogadishu in 1983, currently based in the UK; and the Somaliland Ecological Society are commonly both know by the same abbreviation - SES.

To distinguish between the two in this report we will abbreviate the Somali Ecological Society to SES, and the Somaliland Ecological Society to SES (Somaliland).

Photo on the cover:

Berde *Ficus spp* which has the biggest DBH in Somaliland according to Somaliland Ecological Society (Somaliland) near QABUURTA village, Baki, Awdal Region.

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EXECUTIVE SUMMARY

The overall aim of the SES fact-finding mission was primarily to assess the current status of natural woodland/forests in Somaliland, and to identify / take note of the impact of the excessive use and misuse of the natural resource on the environment, as well as any urgent threats, opportunities or challenges facing the Somali people and the Somaliland authorities.

The fact finding mission has shown that Somaliland is affected by a great deal of environmental degradation due to factors such as:-

- clearing of vegetation;
- illegal charcoal trade and export;
- overgrazing;
- soil erosion;
- deforestation; and
- Generally depletion of natural resources.

Also, in the absence of strong government, land-grabbing has become a national problem in rural areas. Common grazing area has become a target for individuals who put up enclosures, thus depriving pastoralists and their livestock, who depend on the land for their livelihood.

This brief fact finding mission has confirmed that, despite the fact that Somaliland's livestock sector contributes a great deal to the economy of the country, providing forage for livestock, and poles for construction of the traditional Somali house (aqal), nearly 90% of the local energy used for homes (charcoal and firewood). Also, others products (food, non-woody products, traditional medicine, shade and soil protection), the forestry sector does not get the kind of recognition it deserves from the Somaliland authorities, and this is particularly the case when it comes to resource allocation especially funding of relevant forestry and related department.

The most serious environmental threat facing Somaliland, is the continuous demand and consumption for charcoal, combined with the illegal charcoal trade (in which both local villagers and outsiders are and have been increasingly engaged) - these levels of demand and consumption are unsustainable. This has not only contributed to loss of biodiversity, but also increases deforestation and accelerated the total depletion of the remaining natural woodland base. Without urgent and co-ordinated action to address the problem, a disaster for the people and the country will follow. The need to study the possibilities of introducing alternative energy for urban population is long time overdue and support from international communities is vital for both technical as well as financial support.

There are encouraging activities currently underway to protect areas such as Gacan Libaax forest, which is unique and ecological important area, and woodlands around Baki Town in the west. But there is urgent need to work with the local community and other stakeholders to put together a sound management plan which will enable local community to use of the natural flora/resources, but will also protect this unique flora on sustainable basis.

Weak Governmental Institutions including Forestry, and Wildlife departments, lack of financial and human resources, the lack of capacity among staff means that the work of various statutory and non statutory agencies involved in forestry/rangelands and wildlife

works appears uncoordinated. Clearly, the lack of overall defined and co-ordinated environmental policy, both in the short term and long term, to reverse the threat of environmental degradation and promote wise use of natural resources, are the main challenges facing the Somaliland Authorities.

There are opportunities to use relatively free and robust media to get across environmental awareness and the risks associated with the excessive use of natural woodlands and forests. Also it became apparent during the fact finding mission that rural as well as urban population are aware and willing to work with the relevant government institutions to protect the remaining natural woodlands, but the authorities often appears not prioritise the vital role in which community engagement and involvement play in addressing urgent environmental threats facing the people.

Finally, it became clear during the fact finding mission that there is a need to re-establish nurseries, both at regional and town level. Also there is a need to revisit the remnant natural forests which are unique ecosystems or forests, such as Gacan Libaax, Daallo, Libaaxley and other similar mountainous woodlands and declare them as forest reserves, not only to conserve and protect them, but to use these assets for educational and recreational purposes.

The objectives of the fact finding mission to Somaliland (August 20th - September 8th 2010)

- To identify key environmental issues facing Somaliland and report the key findings to the next Anglo-Somali annual meeting;
- To support offer financially where possible and encourage the re-establishment of the Somaliland Ecological Society and its work;
- To visit, if possible ecologically important areas, namely Gacan Libaax, and other high mountain open woodlands;
- To explore the possibilities organising the next SES conference in Somaliland and to identify former SES members and recruit other members;
- To raise the profile of the SES, through local media newspapers / radio / TV / etc.

Limitation of the fact-finding mission

It was not possible to meet the newly appointed Minister of Livestock, Range, and Wildlife during the fact-finding mission and due to limitation of time and resource, the fact-finding mission only visited 3 regions out of the 6 main regions that formed Somaliland.

1. ABOUT THE SOMALI ECOLOGICAL SOCIETY (SES)

Founded in 1983, the SES is non-political and non-profit making organisation dedicated to the conservation of the Somali environment (both marine and terrestrial).

The organisation made considerable progress from 1983 - 1990. The most successful projects by the Somali Ecological Society during this period included the following:

- The SES established the first Nature Reserve in Balcad and was able to achieve reserve status as of 7th June 1985. The objectives of the Balcad Nature Reserve were protection of the remaining forest, encouragement of the recovery of the ecosystem, establishment of the facilities for the study of wildlife and forest ecology and provision of education and training opportunities;
- Aid to the Somali Research Project (University College London) in their study and presentations on the remaining riverine forest of the Jubba Valley;
- Assisted the survey four potential Wildlife Reserve near Mogadishu (Within 60 kilometres radius);
- Provision of a forum for Scientists to present and discuss their findings by holding meetings, open to the public, once a month;
- Publications included a regular newsletter and guides to Birds and mammals in the Nature Reserve and Nationally;
- Before the outbreak of the civil war in Somalia, the organization's effort focused upon identifying and preserving remnant vegetation and wildlife habitats which represent natural ecotypes indigenous to Somalia and Somaliland.

1.1 Summary of the Society's Achievements

All major SES activities in the country were terminated with the onset of the civil war at the beginning of 1990. However, a number of SES members have continued the SES activities in various parts of Somalia, Somaliland and Puntland on a voluntary basis. In addition, there has been a continuous communication between former SES members living in the UK and other countries since 1995.

The re-vitalized SES sent two fact-finding missions to Somalia and Somaliland in 1998 - 1999, to survey the current environmental health of the country and to make contact with those concerned for conservation on the ground, including former active members of SES. Also, regular newsletters describing relevant to the on-going conservation situation in Somalia and Somaliland and in giving information the Society's activities have been resumed and are made available to members.

The SES has provided limited financial assistance to SES members in various regions in Somalia and Somaliland.

2. SOME BACKGROUND INFORMATION

Somaliland became independent from Britain on 26th June 1960, and united with Somalia on 1st July 1960. After 9 years of democratic systems, a military Junta led by Major - General Maxamed Siyaad Barrie overthrew the government in 21st October 1969 and soon after the National Assembly was disbanded and the democratic constitution suspended. The army promised to get ride of corruption and nepotism and other social ills such as ignorance, and hunger. The National Supreme Revolutionary Council (SRC) of Military Officers and Police Officers was named as the new Force in the land. The initial decade, the military regime undertook various successful public projects including a new Somali script and campaign to enable adults as well as school children to write the Somali language, created state farms and major resettlement was carried to assist people displaced as result of severe drought (DABA-DHEER - Long tailed) in 1974/5. Despite its achievements in the first decade, the military regime has through its socialist policies increased the state control of economic sector and has increased the monopoly of state agencies and nationalisation of other key factories left the country with huge deficit. By 1980s exports were in serious decline, and the economy was characterised by massive corruption and raging hyperinflation (WSP, 2005).

The defeat of the government troops by armed opposition groups in 1991 caused the collapse of the central government in Somalia and the president fleeing from capital Mogadish. Following the reconciliation conference held in Burco in May 1991, Somaliland declared its independence from the rest of Somalia. Since 1991 Somaliland enjoyed relative peace and had strengthened its government institutions and many acknowledged Somaliland's relative stability, and its recent successful parliamentary as well as presidential elections. At the time of the fact finding the newly democratically elected President Axmed Maxamed Maxamuud (Siilaanyo) has replaced former President Daahir Riyaalle Kaahin who ruled the country since 2002. However. The country is not recognised by the international communities.

The economy is one based on livestock products and by-products both for local consumption as well as for export. In fact, more 50% of the country's income and subsistence comes from livestock and livestock related activities. The principal markets for livestock export are Saudi Arabia. It reported that between 1991 - 1997 livestock export on hoof grew considerably exceeding pre-war levels when Somaliland exported three million head of livestock in 1997, most to Saudi Arabia (WSP 2005). The total revenues generated in 1997 were estimated US\$120.8 million, which meant over 80% of the total hard currency income in the country. Financial support from the Somalis living overseas contributes a great deal to the economy. Also, the private sector contributes to the economy usually providing employment and investment both of which are vital to the livelihood of many people. Although difficult to estimate the amount of revenue it generated other export come from resin Frankincense collected from *Boswellia* spp and Myrrh from *Commiphora* species.

In the Somaliland, pastoralist is the dominant land use mainly with camels, sheep, goats, and in the north west regions with cattle. Less than 10% of land area is estimated to be suitable for permanent agriculture, this is mainly found in the north west regions, where high rainfall and fertile soils are both common. The major crops include maize, sugarcane, millet, and cotton.

Somaliland's topography has three key features, Guban, Oogo, and Hawd. Guban is known as the narrow coastal region, which is very hot and humid, especially during the summer

months June - August. Oogo, inland from the coast the elevation rises and this is Golis mountain range, which runs from the west to east and in this region its cooler and has unique flora and fauna, and abundant water. The third feature, Hawd stretches across the border from Somaliland to Ethiopia. The majority of the population in Somaliland live in Oogo which has habitable climate, water, and areas appropriate for cultivation.

Somaliland is a semi-arid country, and the climate is generally hot with a frequent drought and extreme variation in rainfall. Average daily temperature range from 25°C - 35°C, and are combined with strong winds and clear skies. It is generally considered that rainfall is the most important metrological element in Somalia as well as Somaliland.

The rainy seasons are the result of northerly and southerly movement of monsoon winds of the inter-tropical convergence zone (ITC2) and its associated fronts. There are two rainy seasons - Gu rains (April - June) are greater and longer than the Dayr season (September - October). In the dry seasons Xaggaa (June - September), and the main dry season Jillaal which often extends for five months from mid November - April. Temperature and rainfall influence the type of vegetation and their distribution in the country. The most extensive vegetation in the country is a deciduous thorn-brush dominated by *Commiphora* species and small trees. These are semi-desert type of vegetation mainly grassland scrubland, especially in the areas with less than 200mm annual rainfall.

3. ROLE OF FORESTS AND NATURAL WOODLANDS IN THE ECONOMIC SECTOR

Forestry has a large and indispensable role to play in the livelihood of both present and future generation of many in Somaliland - the people depend on natural forests / woodlands which are vital to the economy of the country.

No forestry inventory covering the whole of the Somaliland has ever been carried out. There has been a limited study about various forests types in the country, especially about the composition and sizes of the mountainous forests in the north between 1970 -1991. While the total land area under forest cover remain unknown, but there is no disputing the importance of Somaliland's remaining forests and natural woodland to the economy of the country and to the livelihood of the Somali people both the rural and the urban inhabitants. On and along the Golis mountains in the north, there are still patches of forests dominated by *Junipers procera*. There are chains of forest all along the range, namely Libaaxley, Gacan liberal, and Daallo.

3.1 Forage and fodder

There is no reliable information about number of livestock in Somaliland, but extrapolation from Somalia ministry of livestock data, it is estimated the total livestock population in Somaliland as 25,136,025 from 1996 - 2000, (MSP, 2005) which comprise Sheep, Goats, Camels, and cattle.

Natural forests and woodlands are therefore very important source of pasture/browse to the livestock, which are the main backbone of the economy. Livestock export represents a significant proportion of foreign exchange revenues. Also woody vegetation is lopped or

felled to provide browse for livestock, particularly in the more severe dry seasons. It is also used as dead-wood fencing.

Natural forests / woodlands and the livestock it supports therefore form the underlying security of the whole of the country, the livestock supply food, milk, and animal products.

3.2 Fuel-wood and Charcoal

Fuel-wood as charcoal is the preferred fuel for domestic use for the majority of the population in Somaliland. It is also used in a number of small urban industries. Unlike other forms for energy, fuel-wood does not require complex nor expensive equipment to use or procure, and it is effectively seen as part of the traditional way of life. Only a few people in the capital use electric, gas and / or kerosene stoves. It is reported that charcoal consumption for the whole of Somaliland in 2000 was estimated to be 480, 000 tonnes (WSP 2005).

In Somaliland the main species used for charcoal making is *Acacia busier* (Galool). Local preference is usually given to this because of its high quality, but other species are also used as well. The over-exploitation of this tree will eventually deplete reserve, because regrowth is slow (WSP, 2005).

3.3 Poles for Construction

In Somaliland, up to the beginning of 1991, there was an increasing demand for poles and construction materials. All timber for construction joinery and carpentry are imported. All TRADITIONAL Somali houses (AQAL) in the rural, and some urban, areas are built entirely out of woody materials and local forests / woodland is the main source of materials. In Somaliland the local people use *Juniper procera* (Dayib) for building purposes. Hardwoods species are used for traditional Somali hut weaving, village huts, tools for oxen ploughs, and curved utensils. As a result of this demand, areas of land are cleared for cultivation, and then abandoned, resulting in soil erosion.

3.4 Frankincense and Myrrh

The production of frankincense is confined to the narrow mountainous strip over-looking the Red Sea. The main collection centres are towns in and around the coast. Frankincense and Myrrh are collected from natural *Commiphora* and *Boswellia* trees. Although this is subsidiary to herding, collection is a vital mainstay to the local economy in this very poor region. For many collectors it is the principal source of income. Trees which produce these products are confined to the mountains areas of Sanaag, although some species are cultivated. These trees are registered property, and are inherited from generation to generation. The frankincense is usually used, in addition to religious rites, in the cosmetic industries, where it is an essential oil because of its clear and aromatic properties.

3.5 Medical plants

The uses of natural forests for making traditional medicines are well documented. It involves the use of different parts of the herbs, such as the roots, leaves, pods, resins, fruits etc. In Somaliland people have always used traditional medicines to treat a wide range of illnesses. The introduction of modern medicines, such as antibiotics, has not stopped the use of medicinal plants. The indigenous tree species are widely used in Somaliland for the treatment of a range of bacterial and viral diseases, as well as skin

wounds, insect bites, etc. - see the list of medicinal plants collected in the Awdal region of Somaliland by Klughard and Eggeh (2002).

3.6 Non-Woody Forest Products

Wild fruits mainly come from *Grewia* species and this includes *Grewia villosa* (Gombosh); *Grewia mollis* (Dhebi); *Grewia tenax* (Dhafaruur). In addition, there are trees whose fruit is collected, such as *Tamarindus somalesis* (Hamar). In addition gum is collected from *Acacia senegal* and other *Acacia* species. Also small items, such as tools and utensils, furniture and rope, are normally made by households from tree products. The non-wood products of the forests, such as medical plants, supports the local economy. People also cultivate fruit and vegetables for their livelihood.

4. VISITS TO GACAN LIBAAX FOREST AND BAKI

4.1 Visits to Gacan Libaax

Gacan Libaax is part of a large ecosystem in Somaliland, which also extend to the east, and this unique ecosystem receives moisture as mist. The moisture helps support a patch-work of forests. These forest trees are instrumental in facilitating the formation and entrapment of mist. A self-contained / self perpetuating system results (Miskell, 2000). Gacan Libaax and the surrounding areas have been traditionally used by local communities living nearby. It has been used for grazing, especially during the dry seasons, and as a "grazing reserve" during droughts.

Main tree species include *Junipers procera* (Dayib), *Buxus hilderbrandtii* (Dosoq), *Euphoria grandis* (Xasaadin), *Olea africana* (Weger), *Ficus* species (Barde), *Acacia etbaica* (Sogsog), and others. See Annexe 1 for a list of the main trees and shrubs in Gacan Libaax, including those that appear to be extinct.

Eucalyptus camadulensis (Baxarasaaf), and *Casuarina equistifolia* (Shawri) were planted by the British in the 1950s.

The study carried out by Miskell in 2000 give a fair decree of analysis about the situation in Gacan Libaax. They include the steps needed to conserve the unique ecosystem and at the same time allowing the continued use of the natural resources by the local communities. The vegetation and forest trees are in the process of fully recovering from previous over-grazing, excessive cutting of forest tree and to assist natural regeneration, the period of resting has been extended and as a result ground vegetation is beginning to recover and re-establish them.

The Guest houses built by the British were damaged during the civil war, and are still in ruins. They need re-building so they can again be used by visiting guests and students from various fields.

"Candlelight", which is local non Government organisation is and has been managing Gacan Libaax with help of workers funded through work for food scheme. A total of 57 workers are employed through the "food for work scheme" and the workers are from nearby villages and they carry out various works such as building on bunds, and carry our other conservation work in the forest.

During the fact -finding mission, staff at the forest reported the return of bigger wildlife to the forest such as Deero, Goodir. Carnivores such as harimacad, guduudane, waraabe, goolle warabe are also reported in Gacan libaax. Smaller games such as dik diks, gerenuk, beyrac, and others. ANNEX No. 1 show the names of larger mammal in Gacan Libaax

Informal interviews with representatives from nearby villages during the fact-finding mission clearly indicated that the community support any initiatives to conserve Gacan Libaax areas, and are aware the vital role which the remaining natural forest and woodland play in their livelihoods.

Despite the good work carried out by candle light, there was lack of leadership from the relevant government agencies. In addition there is a complete absence of a short term or long term management plan. Such plans are essential if the current situation of forest and nearby natural woodland is to be reversed. A plan is also essential to determine how the area can continue to provide non-woody products to the local communities on a sustainable basis.

Furthermore, there is also a need to encourage the involvement of the local communities for the development of any future management of the forest, as they are crucial to the success of the implementation of a resources management plan.

4.2 Visits to Baki, Ruqi and Qabuurta

The sites visited are located in the mountainous regions of Awdal region, which are situated in the extreme north west part of Somaliland. The altitude in this areas ranges from 650 to 1300 metres, as reported by Klughard and Eggeh (2002). The communities in these areas has the largest arable land in this region. Irrigation agriculture is practiced, mainly along banks of the main valley of Bira Toga and Dibira Weyn Togga. Other communities nearby are pastoralists, and as a result attach greater importance to grazing & browsing. Sadly a significant area is over grazed.

Open woodland constitute the main vegetation type in this area. *Acacia bussei* (Galool) is well adapted to a wide range of altitude and soil types. *Acacia tortolis* (Qudhac) is also found in this area together with the *Acacia senegal* (Maraa). Other tree species found in the area include *Tamarandus somalensis*; *Commiphora playfairii*; *Ficus salicifolia*; *Terminalia brownie*; *Berchemia discolor*; *Grewia tenax*; *Balanites aegyptiaca*; *Balanites glabra*. Klught and Eggeh (2002) have listed the most important tree species and their uses in the areas visited, see Annex 2, Table No. 1.

Local communities confirmed the presence of large amount of wildlife, including mammals, birds and reptiles. In the areas visited it was reported that combination of hunting, loss of habitat, and civil unrest have all contributed to a decrease of the wildlife population, and in some cases, the total extinct of larger mammals. Local communities informed the mission that there are a number of wildlife found in this regions include mammals such as greater Kudu (*Goodir caalweyn*), Caracal (guduudane), cheetah (harimacad), stripped hyena (dhidar), and spotted hyena - for full list of the mammals in the area please see ANNEX No. 2.

The use of natural woodlands by the local communities clearly shows heavy grazing, which has led to the destruction of the vegetation cover, including perennial grasses. This overall degradation of the natural resource base has resulted in reduced livestock

production in the long term. The local communities depend on these natural woodlands for their livelihood. Prolonged droughts, and recurrent disease outbreaks, coupled with the aftermath of the civil war, have led the communities to seek other livelihood safety nets (Klughardt and Eggeh, 2002).

Another major threat to the use of natural woodland on a sustainable basis is the illegal trade of charcoal by the local pastoralist / agro-pastoralist. This production is a way of generating some income to subsidise their livelihood. During the fact-finding mission it became apparent that this activity is not confined to few traders, but it is a widely adopted practice by local communities. Other practices that impact on the natural resources is the use of woody materials for fencing on farms, the destruction of habitats for irrigated farms, and temporary shelters for livestock (xerro).

The local communities have clearly demonstrated their commitment in fully involving and engaging any initiatives that may reverse the current threats of the environmental degradations such as contributing the setting of natural resource management and land use plans along with identifying coping strategies to reduce natural resource conflicts.

5. IMPACT OF THE CURRENT USE AND MISUSE OF THE FORESTS AND NATURAL WOODLANDS

5.1 Deforestation

The most serious environmental threat facing the people of Somaliland is the excessive, uncontrolled and illegal cutting of trees for charcoal, mainly for local consumption but also for export.

The population living in all major towns and cities in Somaliland, especially Burco, Hargeysa Ceerigaabo, Laascaanood and Boorama, have increased sharply over the past 10-15 years. This is mainly due to people returning to Somaliland from Europe, North America, and Europe to settle and start business. Also there is the arrival of a significant, but unknown, number of Somalis fleeing and being displaced as a result of intense fighting in southern Somalia, particularly in and around Mogadishu and Central Somalia, and sizeable number of migrants from Ethiopia.

As the number of people living in major cities in Somaliland increased this has in turn increased the demand for charcoal and firewood. Pastoralists, farmers and agro-pastoralist, local villagers and outsiders began to engage in the illegal charcoal business to subsidise their income. This situation is further exacerbated by the methods of charcoal making used throughout Somaliland which is wasteful as this usually involves setting fire to the tree at the base (or to cut it at about 50cm or higher above ground level leaving a large part of stem unutilised), and then covering it with earth to extinguish the fire.

Charcoal burning is often practiced by pastoralists who can not cover their expense by selling their livestock, and as result they often neglect their livestock as charcoal burning is very time consuming (Klught and Eggeh, 2002).

The areas worst affected by illegal logging include the areas visited during the fact-finding mission in and around Gacan Libaax, as well as in and around Baki town and nearby Ruqi, and Qabuurta villages. Juniper forests used to cover substantial areas in the mountain forest, government reports put the area as 180km sq (Somalia today 1975), but recent estimates put the area as far less, at less than 900 ha. The forest has been subject to very extensive grazing and logging. In some areas many trees are reported to be over-mature, and heavy grazing / browsing partly prevented natural regeneration.

The earlier SES fact finding mission of 1999 - 2000 reported the threats of illegal charcoal trade for export to the pastoralist living in Sanaag and Sool regions. The SES mission report noted:

“ that in the areas visited people engaged in illegal charcoal trade set up 140 different camps, which covered 200km sq, and SES mission reported to get an idea the level of trade, and the volume of charcoal going to the small port of Elayo, the mission stayed one night nearby village (Ceel Doofaar) to observe the traffic and it was reported that less than 12 hours, a total 19 lorries all carrying charcoal for export of which seven are 30 tons capacity passed through.”

There is an urgent need for Somaliland authorities to follow up previous research studies and recommendations which have drawn attention to the urgent need to find alternative sources of energy (e.g. Kerosene / alternative sources energy) as current level of demand and consumption is unsustainable.

Any initiatives by the Somaliland authorities to reverse the current threats of environmental degradation would likely to fail without finding alternative source of energy for people living in main cities and towns, this in turn would further accelerate the loss of rich bi-diversity, fodder/forage for livestock and wildlife.

Botanical surveys carried in Somaliland have suggested that the diversity of the plant species in Somaliland is higher than all countries in the sub-Saharan Africa put together. It is also well known amongst the botanical community that there are still unexplored areas which may disappear without the necessary protection or rest to recover

5.2 Overgrazing

The vegetation in most of the most regions has been depleted heavily due to overgrazing by livestock. Despite the lack of empirical data, environmental degradation leads to a reduction in rangelands productivity, which affects livestock productivity and which in turn affect the livestock productivity, and which in turn threatens the food security of the pastoralist(WSP, 2005). The situation has been further exacerbated by enclosures of rangelands, which reduce the common grazing lands, and increase the overgrazing of remaining rangelands.

It is evident that as result of the pressure on the vegetative cover, soil is exposed for wind and soil erosion, which in turn further increase pressure which could result in the extinction of some plant species.

The Klught and Eggeh (2002) have reported that community elders in Baki have listed a number of coping strategy to manage natural resources, these included:-

- Forest conservation activities carried out by the communities;

- Reintroduction of forest guards to carry on environmental protection activities as in the past;
- Setting up/reintroduction of rotational grazing system;
- Soil erosion control activities under the food for work assistance;
- Better methods for charcoal burning using dead trees and side branches;
- Introduction of alternative energy sources, eg kerosene stoves, introduction of energy saving stoves;
- Job creation to reduce intensity of charcoal burning;
- Involve government and NGOs in natural resource management activities.

The construction and expansion of watering points is causing initially a great deal of vegetation clearance, and later increased land degradation due to overgrazing and increased for charcoal and firewood in the nearby land areas.

5.3 Fauna

Considerable literatures exist about the fauna of Somaliland, especially in the last century. As a result of armed conflicts and civil strife has destroyed most of the habitats of wildlife; including several species that are endemic and many of them are on list of endangered species identified by the International Union of Conservation of Nature (IUCN). Endangered species of wild life in Somaliland and Somalia include Wild ass, Leopard, Lion and Beira antelope. However, the mission has been informed throughout that the attitude of the local communities are much more committed now to protect wildlife, and interviews with villagers near Gacan Libaax established the change of attitude towards the protection and conservation of wildlife Somaliland.

Wildlife such Elephants, Leopard and Lions that are now extinct or very rare were abundant in Somaliland, in fact, Hunt general survey (1944 - 1950) reported that Lions were very common all over the country, and especially in the high mountains where juniper forests persist. It also reported that leopards (Shabeel) was getting rare at the early part of 19th century due to high prices of its skins, and that in 1928, a total of 2,000 leopards were exported to Aden from Somaliland.

The mission did not have the time and resources to assess the uses and misuses of Marine resources, however, the mission would like to point out studies carried out in Somaliland in the past 10 years, and in particular the report entitled “The preliminary Ecological Assessment of the Saardin Islands. Awdal Region” by IUCN, 1997.

6. SUMMARY DISCUSSION OF KEY RECOMMENDATIONS

Despite its vital role in the economy of the country and the livelihood of the people, it is clear that the successive Somaliland authorities failed to ensure that the sector receives the kind of priority that it deserves. Perhaps nothing shows better than this the current state of the department responsible for the overall management of forests, rangeland and wildlife. It is poorly equipped to lead and coordinate the vital and necessary work it leads; and give direction to the protection and the conservation of the remaining natural forests and woodlands.

It would appear that the lack of clear and co-ordinated forestry policy is one of the main challenges preventing both voluntary and non-voluntary agencies to carry out initiatives that will reverse the present threat of environmental degradation facing the country and its people. There is no capacity to enforce the existing forest laws and regulation, and many are adopted from the failed pre 1991 forest law and fauna. There is need to revisit the existing Forest laws and regulation.

It became apparent during the fact finding mission that there is a huge environment and environmental related work going on in Somaliland. There is lack of co-ordination and no proper monitoring and evaluation of the various projects funded by the international organisations.

There are opportunities to learn from mistakes made in the past including the top-down driven forestry policy and laws which alienated the majority of rural communities that depend on the natural resources for their livelihood. And there is an opportunity to link with the local villagers who have shown willingness to contribute the preparation of management plans that secure their right of access and that protect the natural forests and woodlands, and to continue its uses on a sustainable basis.

Conservation Increase the involvement of local communities in participating national decision making processes; The SES fact-finding mission makes the following recommendations.

6.1 Recommendations

The Somaliland authorities, through its relevant government departments, should provide the leadership and direction needed to urgently address the following:

- The current level of charcoal demand and consumption are unsustainable:
 - initiatives that promote energy efficient stoves need to be promoted and encouraged where possible and charcoal ban introduced need to be enforced;
 - The illegal charcoal trade, which poses a serious threat to the livelihood of people and undermines the natural resources base;
 - The urgent need to explore the introduction of alternative sources of energy e.g. kerosene stoves.
- Environment resource policy is vital, to increase food production, protect the environment, addresses the urgent energy problems, encourages the involvement of rural and urban population in the wise uses of natural resources on a sustainable basis;
- To strengthen the relevant government department, namely the Ministry of Livestock, Forestry and Wildlife, through its yearly budget allocation, recruiting and training,
- To identify, protect and maintain the best examples of ecosystems e.g. Gacan Libaax, Daallo, Libaaxley which may contain very useful germplasm. These areas need to be protected before useful species are lost. Also, the areas could be used in research and education, tourism and to generate income, education in the country;

- To reclaim degraded land, there is a need to re-establish and strengthen regional and district level forest nurseries to raise an appropriate tree seedlings for shade, poles and construction, shelterbelts, firewood and fodder;
- To Increase public awareness about the urgent need to reverse the present threat of environmental degradation facing the country through robust regional and local media;
- Somaliland SES and other local Environmental NGOs should actively advocate / support the formulation of sound, pro-poor environmental policy and practices to ensure the sustainability of the natural resource base which is crucial to the economic and social well being of Somali people.

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ANNEXES

Annex 1

Table 1. Somali and Scientific Names of Plants Gacan Libaax (After Meskill, 2000)

Trees and Shrubs

Somali name	Scientific name
Ad adag	<i>Ficus sp</i>
Brede	<i>Ficus sp</i>
Dayib	<i>Junipers procera</i>
Dosoq	<i>Buxus hildebrandtii</i>
Maayeer	<i>Euclea schimperi</i>
Mooli	<i>Draceana ombet</i>
Salemac	<i>Cadia purpurea</i>
Shooy	<i>Sideroxylon buxifolium</i>
Sogsog	<i>Acacia etbaca</i>
Wabay	<i>Acokanthera schimperi</i>
Weger	<i>Olea africana</i>
Xasaadin	<i>Euphorbia grandis</i>
Xayramad	<i>Dodonea viscose</i>

Table 2. Plants said to be extinct on Gacan Libaax: (After Miskell, 2000)

Somali name	Scientific name
Cilaan	<i>Lawsonia inermis</i>
Dhebi Qodaar	<i>Not found</i>
Buqeys	<i>Not found</i>
Toon	<i>Andropogon Kelleri</i>

Table 3. Somali and Scientific Names of Larger Mammals of the Gacan Libaax (Maskill, 2000)

Somali Name	Scientific name	Likely status
Dheero	<i>Gazella spekei</i>	Uncommon
Cawl	<i>Gazella soemmering</i>	Extinct
Bayra	<i>Dorcatragus megalotis</i>	Rare
Calakuud	<i>Oreotragus oreotragus</i>	Uncommon
Godir	<i>Tragelaphus strepsiceros</i>	Uncommon
Sig	<i>Alcelaphus buselaphus swaynie</i>	Extinct
Beyciid	<i>Oryx gazella</i>	Rare (extinct)
Dofar	<i>Phacochoerus aethiopicus</i>	Common
Maroodi	<i>Loxodonta africana</i>	Extinct
Libaax	<i>Panthera leo</i>	Extinct (Rare)
Daanyeer/Daayeer	<i>Papio hamadryas</i>	Common

Annex 2

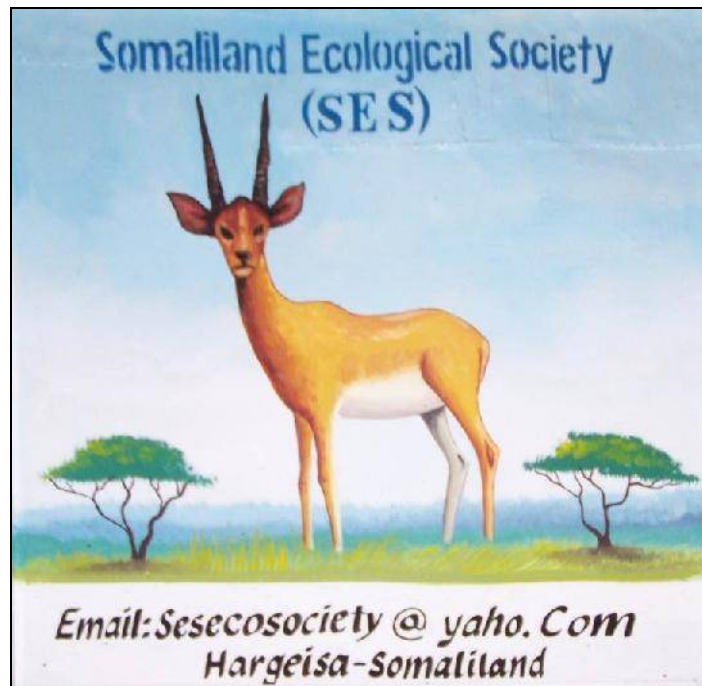
Table 1. Overview of the most important Trees species and their use (Klught and Eggeh 2002)

Somali Name	Scientific Name	Uses
Galool	<i>Acacia busei</i>	Charcoal, browse, household utensils
Cadaad	<i>Acacia Senegal</i>	Gum, fuel-wood, fencing, browse,
Godha	<i>Acacia tortilis</i>	Fuel-wood, fencing, browse, dye,
Maraa	<i>Acacia nilotica</i>	Browse, fencing, tools
Sogsog	<i>Acacia ethbaica</i>	Fuel-wood, fencing, browse,
Bilil	<i>Acacia mellifera</i>	Fuel-wood, fencing, browse
Gumar	<i>Acacia orfota</i>	Fencing, browse, toothbrush
Quud	<i>Balanites aegyptica</i>	Browse, tools
Kedi	<i>Balanites glabra</i>	Fencing, pistils,
Dheen	<i>Berchemla discolor</i>	Browse, tools,
Xagar	<i>Commyphora sp</i>	Incense, browse, fencing
Lebi	<i>Delonix elata</i>	Browse, tools
Hamash	<i>Ficus populifolia</i>	Tools
Daray	<i>Ficus sycamorus</i>	Food, tools, browse
De er	<i>Ficus salicifolia</i>	Tools
Berde	<i>Ficus vasta</i>	Browse
Xamar	<i>Tamarandus somalensis</i>	Browse
Gob	<i>Ziziphus mauritiana</i>	Browse, food, tools, cosmetics
Dhuur	<i>Tamarandus nilotica</i>	Tools, oxen implement
Oobol	<i>Comnretum molle</i>	Gum, tools,
Wob	<i>Termanalia brownii</i>	Medicine against cholera, and stomach ache
Anjel	<i>Mimusops anjel</i>	Food, tools, browse

Table 2. Mammals of Baki District, Awdal Region (After Klught and Eggeh, 2002)

Somali Name	Scientific name	English name	Status
Gerenuk	<i>Litocranius walleri</i>	Gerenuk	Fair
Beira	<i>Dorcatragus megalotis</i>	Beira	Common
Sagaaro	<i>Madaqa soltiana</i>	Philip's dikdik	Common
Calakud	<i>Oreotragus oreotragus</i>	Klipspringer	Common
Goodir Caalweyn	<i>Tragelaphus strepsiceros</i>	Greater Kudu	Very rare
Goodir caynala	<i>Tragelaphus imberbis</i>	Lesser Kudu	Rare
Gududane	<i>Fellis caracal</i>	Caracal	Common
Fellis serval	<i>Bisad dibadeed</i>	Serval	Common
Genetta genetta	<i>Muuq shabeel</i>	Civet	Common
harimcad	<i>Acinonyx jubatus</i>	Cheetah	Rare
Shabeel	<i>Panthera pardus</i>	Leopard	Extinct, crossing from Ethiopia
Libaax	<i>Panthera leo</i>	Lion	Extinct, crossing from Ethiopia
Dhidar	<i>Hyaena hyaena</i>	Stripped Hyena	Common
Waraabe	<i>Crocuta crocuta</i>	Spotted Hyena	Common
Bawne	<i>Dendrohyrax arboreus</i>	Tree dassie	Common
Daayeer	<i>Papio hamadryas</i>	Baboon	Very common
Waraabe nacas	<i>Proteles critatus</i>	Aardvark	Common
Dacawo	<i>Canis aureus</i>	Golden common Jackal	Common
Dacawo	<i>Vulpes ruppellii</i>	Ruppel's fox	Common
Goole waraabe	<i>Otocyon megalotis</i>	Bat- eared fox	Common
Da'aw	<i>Canis aureus</i>	Black backed jackal	Common
Ame	<i>Mellivora capensis</i>	Ratel	Common
Doofaar	<i>Phacochoerus aethiopicus</i>	Warthog	Very common
Qarandi	<i>Orycteropus afer</i>	Aardvark	Common
Hystrix species	<i>Caano qub</i>	Crested porcupine	Common
Weli sandheer	<i>Pedetes capensis</i>	Spring hare	Common
Caanaqub	<i>Atlererix albiventris or Paraechinus aethiopicus</i>	White-bellied hedgehog	Common

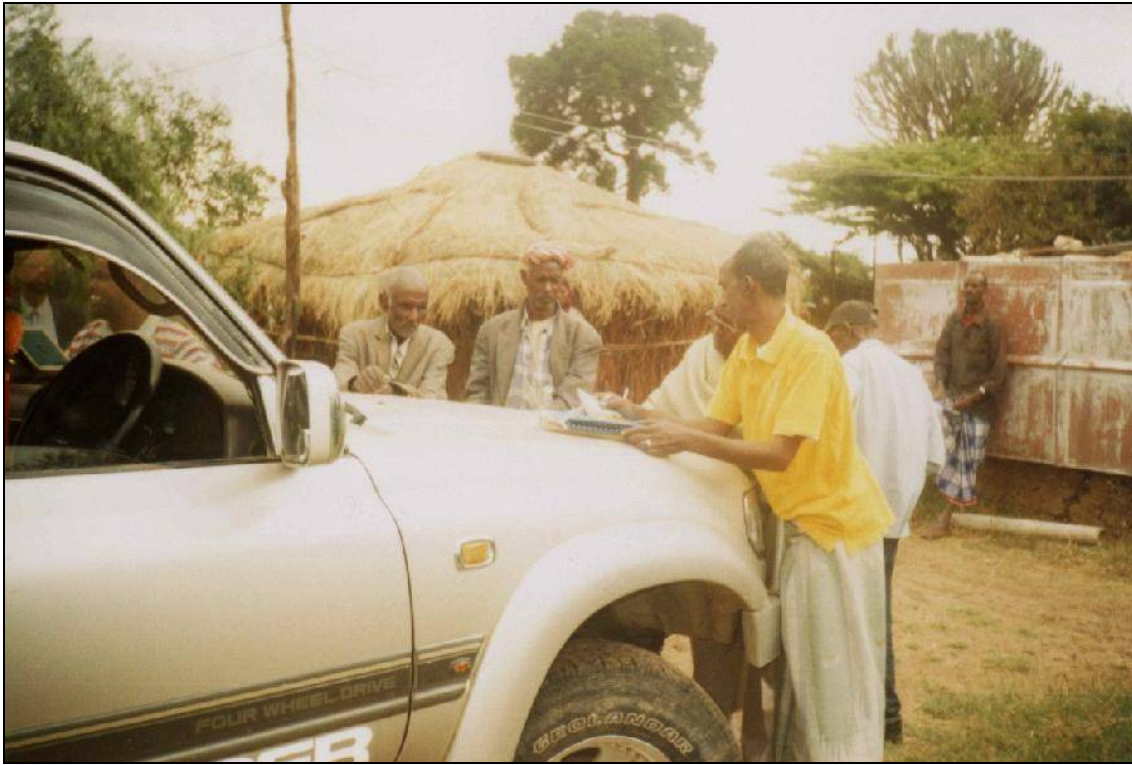
SELECTED PHOTOS



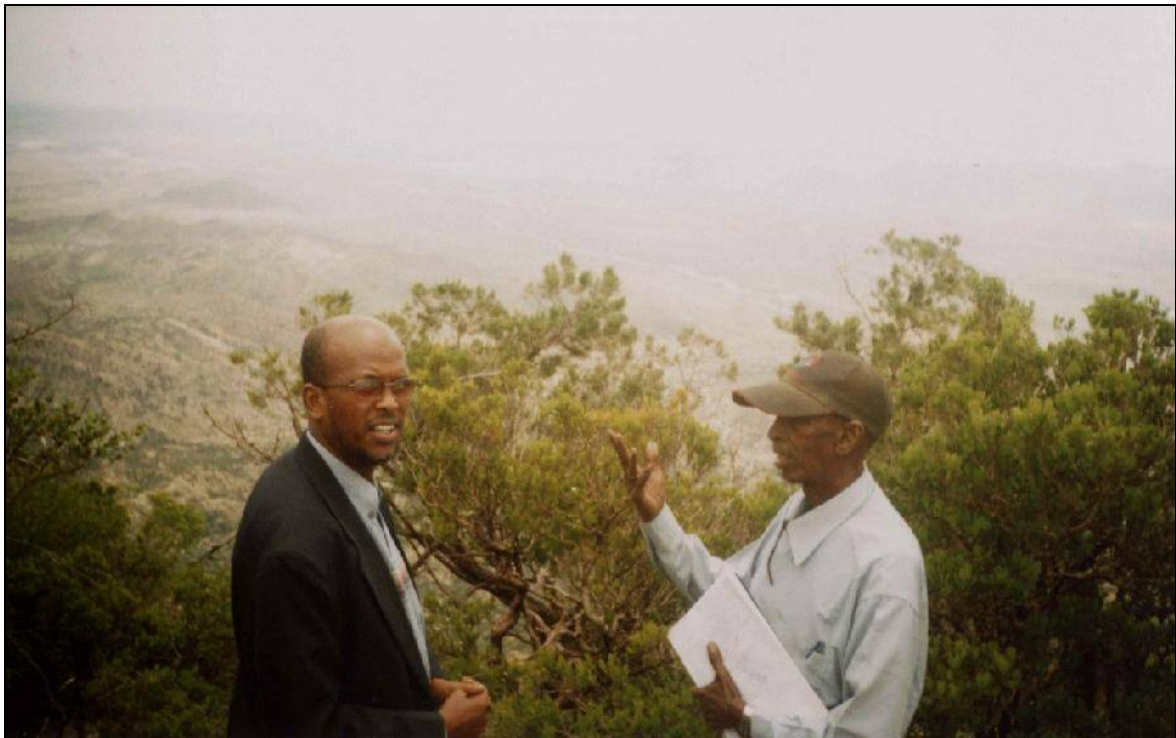
No. 1 Somaliland Ecological Society Logo (Photo by SES)



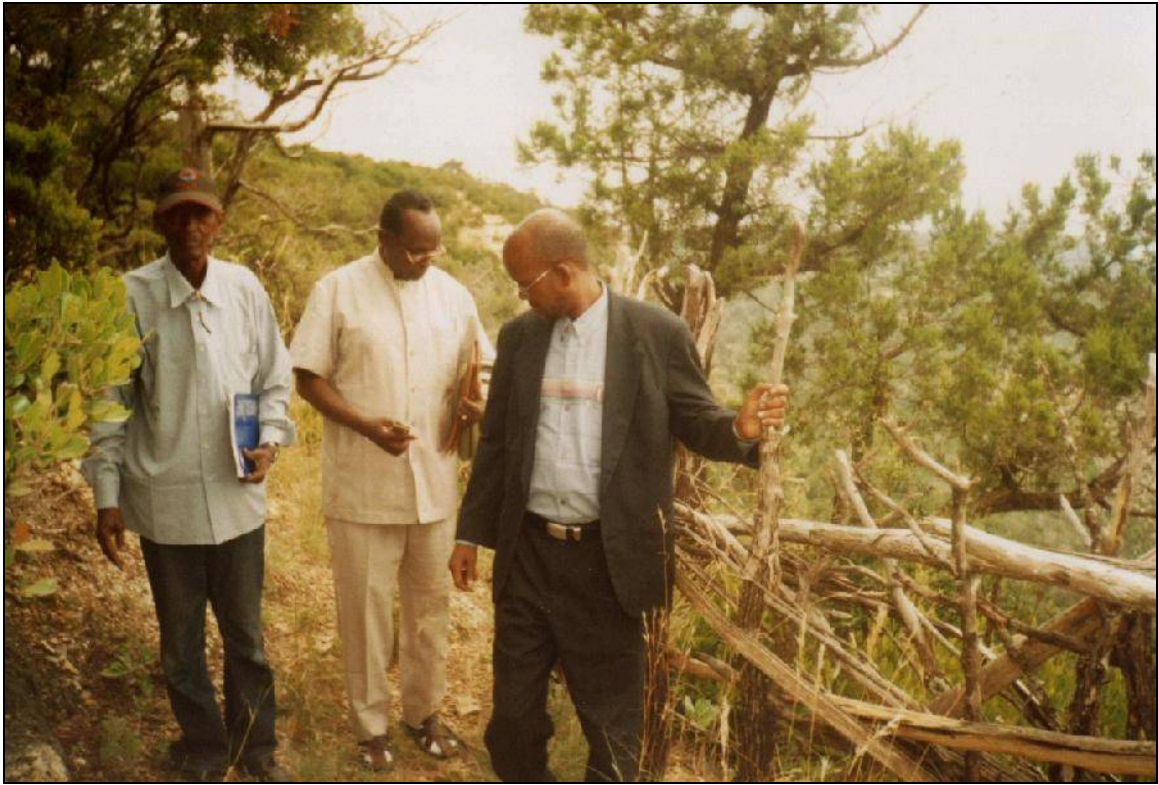
No. 2 Members of the Management Committee of the Somaliland Ecological Society and the Chair of the Somali Ecological Society (Photo by SES)



No. 3 Gacan Libaax, showing staff new and old and their base (Photo by SES)



No. 4 Top of Gacan Libaax showing condition trees and vegetation plus Members of SES (Somaliland) (Photo by SES)



No. 5 Gacan Libaax (Photo by SES)



No. 6 Top of the Ridge Gacan Libaax (Photo by SES)