

DIALOGUE FOR PEACE

Somali Programme



From Plunder to Prosperity

**Resolving Resource-Based
Conflict in Somaliland**



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Front cover photo: An armed charcoal producer prepares to burn acacia trees felled in pastoral grazing lands, where acacia trees provide browsing for camels and are an essential part of the ecosystem in this semi-arid environment

Back cover photo: 3 KW of electricity is produced in a gentle breeze by this windmill – the brainchild of Eng Mohamed Nuh, designed and made locally by Somaliland Free Energy

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The Dialogue for Peace

How WSP International and its three partners are working to consolidate peace and support better governance across the Somali region

Rebuilding a country after conflict is about far more than repairing damaged buildings and re-establishing public institutions. Fundamentally, it is about restoring the people's trust and confidence in governance systems and the rule of law, rebuilding relationships at all levels, and providing the population with greater hope for the future. These processes are all critical to the consolidation of peace and security in fragile post-conflict situations. When they are neglected, the threat of conflict re-emerging is very real.

In this sense, state-building and peace-building are potentially contradictory processes – the former requiring the consolidation of governmental authority, the latter involving its moderation through compromise and consensus. The challenge for both national and international peacemakers is to situate reconciliation firmly within the context of state-building, while employing state-building as a platform for the development of mutual trust and lasting reconciliation. In the Somali region, it goes without saying that neither of these processes can be possible without the broad and inclusive engagement of the Somali people.

WSP International – recently renamed the International Peacebuilding Alliance (Interpeace) – launched its Somali Programme in the northeastern part of the Somali region known as Puntland in 1996. It subsequently expanded its programme to Somaliland in 1999, and to south-central Somalia in 2000. Working with highly respected local peace-building institutions established with the programme's support – the Puntland Development Research Centre (PDRC) in Garowe, the Academy for Peace and Development (APD) in Hargeysa, and the Center for Research and Dialogue (CRD) in Mogadishu – WSP has employed a highly successful 'Participatory Action Research' methodology to advance and support interlinked processes of peace-building and state formation. WSP's experience in the Somali region over the past decade indicates that the understanding and trust developed through the PAR methodology can help to resolve conflicts directly, while at the same time building consensual approaches to address the social, economic and political issues necessary for a durable peace.

As well as groundbreaking research throughout the Somali region, the Dialogue for Peace programme has provided unique opportunities for the three partners to engage with each other in collaborative studies and shared projects. In 2004, the CRD and PDRC teams agreed to combine their efforts in a jointly-managed peace-building programme. While managing its component of the Dialogue independently, the APD has continued to collaborate with the other two institutions on key technical and methodological issues. Over the past two years, the three partners have met regularly with WSP's Somali programme team to plan and coordinate their respective activities, as well as with a 'Dialogue Support Group' comprising the programme's donors at the European Commission, DfID, USAID, Switzerland, Sweden, Norway, Finland, Italy and Denmark.

The Dialogue's consultative process has involved extensive consultations with all sectors of society, from national-level political and business leaders to local elders and community leaders, youth and women's groups, NGOs and civil society organisations. Its Participatory Action Research has provided for an inclusive, consensus-oriented dialogue led by local actors and facilitated by Somali research teams based at each of the partner institutions. The discussions have been documented in written and video form, and every effort has been made to engage the local media and disseminate the findings as broadly and objectively as possible.

Initial consultations by each partner institution were based upon detailed ‘actor and conflict mapping,’ which enabled the programme to identify local and regional priorities for dialogue, as well as respected leaders to guide and promote the dialogue process. At the Project Group meetings held in November 2004 by PDRC and CRD in Nairobi and by APD in Hargeysa, several areas of focus, or ‘entry points,’ were agreed upon for research and discussion in each area. For APD, the focal areas were: democratisation; decentralisation of governance; and resource-based conflict. The PDRC’s areas of focus were: democratisation; public fund management; consolidation of the Mudug Peace Agreement; and reconciliation. The CRD’s focal areas were: security and stabilisation; the roles of the business sector and civil society in peace-building; and reconciliation.

At the outset of the main ‘consultative phase,’ Working Groups of primary stakeholders were established to guide the work on each focus area and to develop plans of action. The groups’ activities included: information gathering and analysis; the identification of key local, regional and national actors whose views or engagement would be required; consultations through interviews, workshops, informal and formal meetings at local, inter-regional or national levels; and the engagement of resource persons to provide particular expertise on complex issues. Extensive consultations over a period of a year or more were essential to ensure sustained public interest and to raise key issues to political decision-makers. Each of the partners also organised regular forums for public discussion of topical issues of concern, as well as engaging in informal liaison as a means of conflict prevention.

This report forms part of a final series of publications designed to formally ‘package’ the findings of these consultations – both as a record for those involved, and as a formal presentation of findings and recommendations to the national and regional authorities and their supporters. Together with a short documentary film on each of the focal areas, it is also hoped that these publications will provide a practical platform for the sharing of lessons learned during each of these groundbreaking consultations.

In response to requests from different stakeholders, including members of the different governance structures, the Dialogue for Peace also set out to take its ‘research-for-action’ beyond the stage of recommendations to include more material contributions to peace- and state-building. One example was the reduction of tensions in Sool after a high-profile exchange of prisoners between Somaliland and Puntland, following extensive behind-the-scenes mediation supported by the APD and PDRC. To ensure that such practical hands-on support will continue into the next phase of the Dialogue, WSP has also initiated a comprehensive programme of managerial training, technical capacity building and fundraising support at each of its partner institutions. And of course, it is continuing to provide practical opportunities for the three institutions to meet together and with other like-minded organisations in order to support other initiatives to foster long-term peace for the Somali people.

From Plunder to Prosperity

Resolving Resource-Based Conflict in Somaliland
An APD/Interpeace Report of the Dialogue for Peace

Introduction

After decades of political upheaval in the Somali region, land tenure systems in Somaliland lie in grim disarray. Years of civil war steadily eroded traditional systems of managing land and resources and resolving conflict, the Somaliland government has been unable to fully restore or replace these systems, and poverty is extensive throughout. Together, these three factors have provided the conditions for a scramble for dwindling natural resources that now poses a great threat to the people of Somaliland, to her environment, to economic growth and to prospects for lasting peace.

Agriculture, both rain-fed and irrigated, for food crops and fodder, is slowly eating away grazing land. The Diaspora and other returnees are bringing newly acquired enthusiasm for the business of sedentary agriculture, while livestock herders turn to farming out of desperation. As agriculture expands its hold over the countryside, pastoralists and farmers are increasingly coming into conflict over scarce land and water. The devastated rural economy, victim of war, drought and the livestock export ban, drives the rural poor to any means necessary for survival. Forests, one of the few remaining resources in Somaliland left to exploit, are now falling at ecologically suicidal rates at the hands of loggers and charcoal burners.

Somaliland takes great pride in its traditional modes of conflict resolution based on the intervention of elders respected for their wisdom and experience, but traditional systems are becoming increasingly untenable in the face of the many conflicts over natural resources and their varied and complex nature, often beyond the scope of traditional intervention.

Somaliland is still awash with small arms. Land disputes can quickly escalate into armed conflict due to the ubiquity of guns. Government police are overwhelmed challenged and insufficiently funded to respond to arising confrontations. Loyalty to clan before state is an impediment to the maintenance of law and order.

These overwhelming problems in tackling natural resource-based conflicts led to its identification by stakeholders as a priority concern and prompted the Academy for Peace and Development (APD), in partnership with Interpeace, to help Somaliland government institutions establish policies and laws to tackle the underlying causes of these conflicts, improve natural resource management systems and help consolidate peace in the region.

From a strong foundation in participatory action research methodology, the process sought specifically to bring together public stakeholders to dissect, debate and discuss conflicts over natural resources, raise public awareness of and involvement in the issue, develop a concrete plan of action to address the causes and finally begin to reverse the environmental and societal devastation.

At a National Project Group Meeting (NPGM) held in Hargeisa, Somaliland, in November 2004, participants from a broad cross-section of society formed a Working Group (WG) composed of key stakeholders – decision makers, professionals, experts and civic leaders – to delve into the major underlying causes of resource conflicts, and in particular those surrounding charcoal, in an attempt to discover concrete solutions.

Key Issues

The first question to ask when formulating policies and regulations governing natural resource management is who controls the resource?

Before the civil war, authority over the use and ownership of natural resources rested firmly in the hands of the omnipotent, if undemocratic and often unjust, central government. With the eventual collapse of the Siad Barre regime in 1991 and the emergence of the government in Somaliland, the management of natural resources has become increasingly challenging. While pastoralists expected to continue their traditional way of life, a new set of emerging factors - increasing urbanisation, settlement, sedentarisation and fencing - has diminished the land available for grazing and, with it, pastoralists' hopes for the traditional nomadic lifestyle.

The pastoral way of life, with its characteristic communal ownership of pastureland and water and private ownership of herds under clan protection, simply cannot survive in a fenced-off, privately owned countryside. If unchecked, the haphazard manner in which pastoralism is now being transformed will lead to further conflict, and the eventual destruction of pastoralist livelihoods.

According to the law, this should not be the case. Somaliland has state laws and policies intended to govern the ownership and use of land and natural resources. The Ministry of Pastoral Development and Environment has produced a Range Policy, an Environment Policy and a Law for the Protection of Rangeland and Against Land Degradation. VetAid and PENHA (Pastoral Emergencies Network for the Horn of Africa), two international NGOs operating in Somaliland, published a policy document covering Land Resources Tenure and Agricultural Land Use. But these, and other policies and laws inherited from previous regimes, seem to have only added to the confusion. The one thing that all actors can agree on is that Somaliland's land and natural resource policies and laws are not at all effective.

Even if clear policies were in place, however, the means for implementation are virtually absent. Somaliland's official budget has very little scope for development programmes, with the bulk of government's meagre revenue going to maintaining peace and security and financing the basic operations of the ministries. The private sector has tried to fill the gap, making significant and essential investments in education, health care, communication and trade.

However, constructive private sector investment has not been felt in the environmental sector since it is not a profit-making undertaking. Government generally encourages efforts to protect the environment, but is challenged to coordinate them for the sake of greater efficiency or to impose regulations or minimum standards. Local governments and communities are equally challenged and unable to cope with environmental problems.



Fenced enclosure of traditional pasturelands contributes to environmental degradation and resource-based conflict, Boroma district © Xaqsoor

The same is true of aid agency projects. However well intentioned, these are often small-scale and uncoordinated, and at times operate at cross-purposes. In one poignant example, the community bee-keeping project initiated by one agency was inadvertently killed off by another agency's overzealous distribution of pesticides in a neighbouring community.

Fencing Rangeland

The increasing prevalence of fenced enclosures in traditional pasturelands and the growth of sedentary agriculture are two of the most important causes of natural resource-based conflict in Somaliland. To the west and southwest of Hargeisa, for example, pastoralists from Alleybadey District (called 'Meder' by locals) on the Ethiopian side of the border can no longer seek water and pasture for their livestock in Gabiley, Arabsiyo and neighbouring vicinities in Somaliland because of the proliferation of fences and farms in the area. Violent clashes here are common.

In the Sanag region, enclosures take the form of ceshimo, expanses of prime grazing area claimed by individuals or families. Some ceshimo have their roots in colonial British Fodder Reserves; others appeared after the illegal seizure of former Cooperative land, designated as such during Siad Barre's 'socialist' era. Regardless of origin, however, claims of outsider trespassing on ceshimo have been a source of much violent dispute and several deaths in Sanag. Reconciliation conferences held in Erigavo in the early 1990s settled many of these disputes amicably, but certain clans in the area claims still linger on, unresolved.

Burning Forests for Fuel

Charcoal is the primary source of fuel for Somaliland's urban households, estimated at between 160,000-200,000 households. It is estimated that Somaliland's urban centres consume over 2 million bags of charcoal each year, the equivalent of an estimated 2 to 2.5 million trees (observation by the author). Forests everywhere are retreating visibly from the periphery of human settlements. In the Haud, where the average distance between villages is less than twenty kilometres in any direction, hardly any forest cover remains.



Destruction of trees to make charcoal depletes the grazing lands of pastoralists' livestock and stimulates violent conflict

Charcoal is the primary source of fuel for Somaliland's urban population. There are no official figures for the overall urban population as the last official census conducted in Somaliland was in the 1970s. However a survey in 2006 by UN-Habitat estimated the Hargeisa population at 400,000 (although Habitat considers this figure may be low). Burao's urban population is estimated at between 150,000-200,000. Other major urban centres are Borama, Berbera, Erigavo, Gabiley, and Odweine. Overall Somaliland's urban population is estimated at between 160,000-200,000 households.

The use of charcoal by households is more dependent on family size than on income brackets as charcoal is not an excessively expensive commodity and most of population can afford charcoal.

Location of entry	No. Trucks	Estimated bags	Total number of bags
Airport road	2 x 4 tonners 4 x 6 tonners	150 x 2 = 300 200 x 4 = 800	1100
Ina-Naxar	2 -12 tonners	300 x 2	600
Halleeya	3 - 6 tonners	200 x 3	600
Others	Donkeys, camels & small vehicles	30% of total	750
		Total	3050 (daily)
			1,113,250 (per year)

Ministry of Pastoral Development and Environment

The figures are obtained from Ministry staff at entry points into the city but are likely to be well below the actual quantities for fear of sanctions from auditors. Nevertheless, based on these figures, charcoal consumption by urban households in Hargeisa is more than a million bags of charcoal per year.

Taking the most conservative estimate of populations in the other major urban centres, this would indicate that over 2 million bags of charcoal are consumed each year. In addition, wood logs are used to fuel bread making ovens and other trees cut down for construction. This is equivalent to between 2 and 2.5 million trees destroyed each year. While some charcoal is obtained from across the border in Ethiopia, the amounts may not be as great as is sometimes claimed due to the constraints of transport costs and intermittent insecurity.

Overall, it seems that Somaliland is losing well over 2 million trees a year – with little re-planting to ensure sustainability of this essential resource.

Charcoal production in Somaliland has increased dramatically since the imposition of the ban on the import of Somali livestock by Saudi Arabia in 1998 forced pastoralists to scramble for economic alternatives. To make matters worse, rural communities that depended mainly on firewood in the past are also switching to charcoal as a more compact, convenient and cleaner-burning fuel. With wood fuel, the tree is used in its entirety, including bark and twigs, and thus is less wasteful. In contrast, charcoal is derived only from the hard core trunk. At the same time, the expanding urban population has also increased its consumption of charcoal¹.

Forests near Go'da, Cadaadley and Da'ar-budhuq have been destroyed en masse to supply charcoal to towns such as Berbera, Burao and Hargeisa. The resultant conflicts in these areas have caused many deaths; one recent armed clash between two clans in the locality of Ali-Adan claimed at least four lives. The Sool plateau to the southeast of El-afwein is also rife with conflict over charcoal, which is produced locally but bound for lucrative sale in Las Anod, Garowe, Bosaso, and for export to the Gulf States. The Governor of Sanag has said that his police units are unable to intervene effectively in these conflicts because of the charcoal traders' superior firepower.

The export trade has added another dramatic dimension to the problem, increasing both local profit margins and production demands to such an extent that traders employ armed militia for protection. Their operations thrive in the disputed territories between Somaliland and Puntland and in the border areas between Ethiopia and Somaliland where government authorities are weakest.

¹Candle-Light publication on Charcoal Usage, Ahmed Ibrahim Awale et al.

In the neighbouring Somali Region of Ethiopia, competition for access to the trade is pitting formerly peaceful communities against one another. Bloody encounters are reported regularly in the media.



Acacia trees like this one take 35 years to mature: they provide browsing for pastoralists' camels and essential shade in this semi-arid environment for other livestock

The charcoal is similarly exported through ports where Somaliland government authority is weak or altogether absent, such as Elayo and Qaw. Here again the promise of profit has drawn armed elements to these towns and triggered violence between them in competition for the market.

In addition to the more immediate human cost, charcoal production is taking a drastic toll on Somaliland's environment. Forest cover and trees are essential in preventing soil erosion, building soil organic matter and providing

fodder for livestock. In Somaliland's already fragile and often harsh semi-arid environment, the clear result of the rush for charcoal is ecological and economic devastation.

Despite charcoal's increasing popularity, firewood is still used extensively in rural areas for cooking and lighting. In urban areas firewood is used for communal bread-making ovens because of Somaliland's high electricity costs (approx. \$1.00 per KWH). One oven in the medium-size Hargeisa district of Jigjiga yar, for example, consumes 200 to 300 logs of 1.5-2m in length every ten days. With four or five ovens in each of Hargeisa's five districts, the city's ovens collectively consume close to 18,750 logs per month on average, or 225,000 logs annually, with each log representing one live tree destroyed. Charcoal is not the only culprit of deforestation and environmental devastation.

Settling Around Water

Water is vital to both the pastoralist and his herd. In its pursuit, the roaming pastoral household is unlikely to respect artificial barriers placed in its way, especially in times of great need. Given competing needs for access to the scarce resource of water, conflicts between mobile pastoralists and sedentary farmers can seem inevitable.

In the absence of permanent rivers in Somaliland, surface water in the form of dams is the main source for both humans and animals. Rainfall has become increasingly erratic in the past ten years (COOPI, 2003), making it more difficult for nomads and farmers to plan breeding and planting cycles respectively. Until the end of



This acacia tree has been marked by charcoal producers to be burned to make charcoal

World War II, there were several dry season water points available to herders: Hargeysa, Odweyne, El Hume, Adaadley, Burao, Eeg, Harada, Ainabo, and Las Anod were among the most popular. Clashes over access to these points were not uncommon, particularly during the dry season.

Water points have proliferated significantly since then, beginning in the 1950s as the British colonial administration established communal earth dams, simple dug-outs to collect rain water run-off (ballis), at points along the border with Ethiopia. Settlements began to form around these ballis – e.g. Balli-cabane, Balli-gubadle and Balli-dhiig (OXFAM, 1998). The name of the latter, Balli-dhiig, or ‘blood water-catchment’, refers to the site’s gory past: bloody feuds over this ballis between the Ogaden and the Dhulbahante in the 19th Century, inter-Dhulbahante clashes in the early 1920s and the Habar Je’lo/ Dhulbahante wars of 1954. Plans to rename it ‘Balli-Khayr’ (‘the balli of good omen’) never materialised. Although Somalis were initially sceptical of the colonial administration’s efforts (see Margaret Lawrence, the Tree of Poverty), the eventual success of the Balli system encouraged a rush to build private underground water cisterns, known as berkas.

A 1995 UNICEF survey of water points in Somaliland recorded a total of 5,513 berkas and 4,969 ballis in the regions of Togdheer and Hargeisa. The balli water lasts 3-6 months, the berkas about 3 months, as ballis are often larger and wells built around the periphery prolong the retention of stored water. Berkas typically hold between 2,000-4,000 litres consumed by the people and animal stock of the owner’s homestead. Berkas are made of cement and bricks, minimising seepage into the ground. Extra water beyond the needs of the family is sold. The survey also lists 209 bore wells, though only 58 (27.7%) were functioning at the time.

As reported in APD/WSP International’s 2003 publication, Rebuilding Somaliland “Due to lack of regulation, water points - mainly berkas - are increasing as the distance between them is diminishing. There is no reliable estimate of the number or density of berkas in Somaliland, but in a given district their number may vary from less than 10 to more than one thousand.”

There are also numerous dug wells along dry riverbeds (or togs) throughout the territory, which rely on rainwater to recharge, as well as perennial springs found mainly along the slopes of the Golis watershed.

From 1980-1986, prior to the civil war, a World Bank-funded agricultural project built both communally run ballis and private berkas in areas south of Hargeisa, though recent updates on the project are not available. Since the UNICEF survey in 1995, NGOs, UN agencies and to a lesser extent the government, have constructed many bore wells, dams and berkas in an uncoordinated, somewhat haphazard manner.

Pastoralists are well aware of the dangers of the expansion of the number of water points, particularly berkas and ballis, to their traditional way of life (J. Sugulle & R. Walker, 1998). The expanding number of water points also brings increases in topsoil erosion, the destruction of trees for fencing material and fuel in an ever-widening perimeter around any settlement, and a general trend toward desertification characterised by the formation of gullies and badlands - severely eroded landscapes resulting from extensive soil erosion. The need for water persists, becoming increasingly precarious following periods of low rainfall. In areas of the Haud, conflicts revolve around a cyclical set of interdependent issues, including the erosion of traditional rangeland management systems and limited access to water and pasture in times of drought.



The base of this acacia tree has already been set alight. Fires such as this one can also spread out of control to destroy surrounding grazing pastures

Varied Conflicts

Conflicts over Somaliland's scarce natural resources vary in socio-economic implication and human impact depending on the resource at stake. Gemstones, marine resources and gums are confined to certain regions and competition over these resources therefore lack the pervasive impact on the lives of Somaliland's pastoral population compared with the effect of charcoal burning or, to a lesser extent, the fencing of land for pasture or agriculture. Even limited access to water, though crucial, has less impact on pastoral livelihoods than erosion of grazing lands. Each conflict is complex and unique and has to be contextualised within its specific geographical, social and political situation.

Regional: In Hargeisa Region the main problem is the process of sedentarisation, while in Togdheer it is overgrazing, villagisation (the formation of a village in the heart of livestock pastureland) and overabundant water cisterns. In Sanag Region, it is the 'ceshimo' (enclosures not necessarily cordoned off by fences). In Awdal Region, the main source of conflicts is mining rights for gemstones and other minerals; in Sahil Region the foreign fishing onslaught in and around Somaliland's territorial waters is the pre-eminent threat. These diverse, interconnected issues are all important factors in the consolidation of peace and security in Somaliland.

Rural vs. Urban: If rural conflicts are fought mainly for control of natural resources, urban struggles are most often over real estate. The city of Hargeisa has seen violent struggles over government buildings and property. In Burao, the airport recently became the centre of a struggle between same-clan affiliates. The Borama and Erigavo grazing reserves, Seraha, are now in the process of being grabbed by real estate dealers.

Previously, most of these properties were either nationalised by the state or confiscated by the Central Bank for default loans. Others were seized by the former Siad Barre government and often 'nationalised' for a specific purpose, such as building a factory or establishing an agricultural cooperative. In the aftermath of the fall of the Siad Barre regime and subsequent breakdown of authority, such properties become the focus of fierce contests. Properties auctioned by the bank often became sources of conflict between the old and new owners.

Currently, there are still squatters occupying government buildings, reflecting the reluctance of authorities to assert themselves forcefully. Fortune-seeking brokers and certain officials grab plots of land on the periphery of old colonial bungalows with impunity. Plots owned by senior figures in the Siad Barre regime became the prize in a long contest of loud claims and counter-claims to ownership made both in court and on property sites. Conflicting ownership certificates can be issued by different government bodies, such as the Ministry of Agriculture, the Ministry of Public Works or the municipal government, or can simply be forged outright by one of the above. Whether the overall atmosphere is one of disrespect or disregard for government authority has not been put to the test.

Implications for Peace

The extent of conflicts and the range of the ramifications manifest themselves differently in many areas of the country. The police are stretched and recently elected local councils have not shown any significant improvement in managing conflict issues. The local councils and other government authorities are overwhelmed by myriad conflicts, mostly over real estate.

Somaliland's then Commander of Police, Mohamed Ege, speaking in May 2006 to a Haatuf reporter about recent conflicts in Erigavo, Alley-badey and Wajaale, blamed the local government of Hargeisa for many of the Hargeisa region's violent conflicts and made similar insinuations with regard to other regional authorities. He cited as his main example a serious recent confrontation between opposing groups in Wajaale in which security forces suffered casualties during attempts to mediate, and which saw the Wajaale headman sentenced to a year in prison for partisan instigation. The conflict was over access to resources. The rich Wajaale plains are slowly being swallowed by competing farmers eager to obtain plots to cultivate.

These are examples of some of the conflict flash points in the country. In all cases the police, local administrations and the general public are important stakeholders and must be involved in finding solutions. In Somaliland, where the rule of law is still evolving and societal fragmentation and displacement from years of civil strife has yet to heal completely, conflicts over natural resources will continue to lie at the heart of any constructive discussion on the consolidation of peace and establishment of effective governance.

Challenges for Judiciary

Somaliland's Judiciary, consisting of District Courts, Regional Courts, the Court of Appeals and the Supreme Court, is still in the process of overcoming the challenges of corruption and nepotism to evolve into a functional system with qualified personnel capable of implementing the rule of law. Although a number of judges have been removed from the bench, the courts are still not widely regarded as a venue for just settlement of disputes over natural resources. The judiciary tends to be soft on conflict issues, generally preferring to defer to and seek mediation from the elders instead. After mediation, the courts announce the decisions. The decisions may not be in line with procedures, but what is decided by the elders 'for the common good' is usually adopted. This reduces public confidence in the judicial system and the stature of the court, rendering its decisions ineffective and sometimes unjust. It allows powerful figures to capitalise on the weakness of the system, encouraging false claims. The popular notion of "Ku-qabso-ku-qadimayside," or "Make a claim, albeit unjust, and you shall end up gaining something," is a direct product of this weakness in the judicial system.

Challenges for the Police

The police rank-and-file are primarily drawn from the demobilisation of the former armed units and own their guns. Although they are provided with uniforms and a number of vehicles for operations, standards of discipline and regimentation are lax, the force is under-funded and has no established ranking system. Organisations such as the United Nations Development Programme (UNDP) are supporting the modernisation of police training. District police officers are still selected on the basis of clan affiliation (among other criteria) and are seldom transferred.

The meagre police salaries are a major challenge in the reform of an effective police service, and the police do perform admirably in many cases. Overall, however, Somaliland's police and government authorities have been ineffective in resolving disputes over natural resources. Despite the erosion of traditional systems, most disputes are still settled by clan elders. Their role is one of the main strengths in the maintenance of peace and security in Somaliland, but is at times reactive rather than proactive.

Critical Needs

During the course of this research work, many participants in the workshops and meetings emphasised the importance of regulating resource use to forestall the collapse of the rural economy. The issues are many and complex, but the most drastic and most far-reaching is the decimation of forest cover for fuel. The charcoal production problem is central to preventing the occurrence and recurrence of resource-based conflicts.

No serious interventions on the land issue have been undertaken, though a UNDP-supported project for Cadastral Surveys implemented by the well-known author and expert on Somali affairs, John Drysdale, has eased tensions significantly in and around Gabiley District. The Somaliland Cadastral Surveys covered over 8,000 rain-fed and irrigated farms, producing maps, certificates of registration, title deeds and boundary markings. The project issued titles and computerised photo ID cards to farm owners. The maps are posted at relevant government offices, such as the Ministries of Agriculture and Planning. Drysdale's in-depth knowledge of the people of the area was crucial to the success of the programme and its impact on peace.

As the local climate changes and annual rainfall levels decrease and become more sporadic, the movement of livestock beyond traditional boundary lines is increasingly provoking hostility from host communities, even though many know that today's wealthy host can easily become tomorrow's destitute guest, or remember kind gestures offered when their own community faced drought or famine in the past. But others use the influx of herders into their territory to settle disputes, demand outstanding blood money or settle old vendettas by killing the closest kin of the alleged perpetrator of an earlier murder – a common practice in the eastern regions of Sool, Sanag and Togdheer.

Deeper Issues

A closer look into all aspects of conflict over natural resources reveals some fundamental issues requiring further analysis and action:

1. The land tenure situation in Somaliland calls for thorough and rigorous understanding before formulating realistic laws and policies that can address all aspects of land ownership and access in practical ways. Pastoralists and their herds need free mobility and access to water, pasture, and saltlicks (or salty grass). Constraints on any of these, as happens whenever settlements expand, threaten the viability of pastoralist livelihoods. Parliament's recent promulgation of Law No. 17 on urban land appropriation adds further confusion to the problems facing the pastoral community. Although most towns in Somaliland, such as Hargeisa and Burao, started as water points for animals from the upper plateau and the Haud, such points are now inaccessible with physical impediments of roads and buildings getting in the way. It seems that pastoralists and herds have simply been pushed aside without any alternatives being sought or put in place.
2. A variety of rangeland trees produce valuable gums and resins, such as *Acacia Senegal* (gum arabic) and related species (*Acacia cadaad*, *jaleefan* and *qansax*), but the pastoral community has not been made aware of their commercial potential. Other resin-producing trees, such as the commiphoras, cover large areas of Sool, the Haud and the coast. Frankincense is harvested in Sanag, myrrh in the Haud and Sool. With greater awareness, living trees could become a valuable and renewable source of income.
3. The issue of charcoal production has become so pervasive and complex that regional dialogue

and regulation is now essential. In the territories disputed with Puntland to the east and the border areas with Ethiopia to the south, tensions are high with associated potential for violent conflict. All parties must reach a common understanding of the problem and develop a common approach to seeking solutions.

4. Efforts to promote alternatives to charcoal will only bear fruit with a successful campaign to develop new energy policies, designed to transform, for example, the tax regime on imported energy or introduce financial incentives to encourage the use of fuels such as kerosene and LPG. There are valid concerns about increases in cross-border smuggling if taxes are lowered but well-designed policy could make up for the loss of revenue in other ways. For example, alternative fuel stoves such as for kerosene can be manufactured locally and profitably through government-supported joint ventures with local business. Pursuing viable alternative fuels is essential to solving the charcoal problem.



Charcoal for sale in Hargeisa, © Ryan Anson/ Interpeace

Key Stakeholders and Counterparts

The Somaliland constitution sets out a political framework for multiparty democracy, a bicameral parliament and an independent judiciary. Government ministries are charged with formulating policy; institutions such as those represented in the natural resource-based conflict Working Group can offer valuable support in addressing gaps and shortcomings.

Government

Though they have indistinct and overlapping mandates, the Ministries of Pastoral Development and Environment, Agriculture, Livestock, and Water and Mineral Resources, as well as the newly formed National Emergency and Research Agency for Disaster (NERAD) are the primary authorities responsible for environmental issues and natural resources in general. The Ministry of Interior is the key institution on all matters related to security and conflict. APD enjoys solid working relationships with these institutions.

Without any major policies in place or a strong drive to take effective measures, past conferences remain the main reference for conflict resolutions. The Reconciliation Conference held in Borama, Awdal Region, in 1993, concluded with an agreement that 'permanent' properties were to be returned to their rightful owners. Parties generally complied, except for a few cases where original ownership was in dispute. However since then, land ownership issues continue to present increasingly complex challenges.

Parliament

Somaliland's most recent parliamentary elections were held in September 2005. The previous parliament had managed to pass a score or so of laws over a ten-year period, including a number relating to the environment. When the new House convened, however, it faced a backlog of draft legislation as well as other immediate political challenges to address. The existing legislation on land issues and the environment is essential for the consolidation of peace, but to settle disputes in court, in practice, typically the laws of the previous regime have been applied, at times substituting or complementing newly passed laws.

The laws promulgated during the colonial era addressed some fundamental land tenure issues, such as demarcating pastoral and agricultural lands and prohibiting the felling of live trees, safeguarded haphazardly by traditional norms and inter- and intra-clan leadership. The construction of berkas was not permitted on prime grazing lands. Subsequent post-independence governments introduced laws such as the Flora and Fauna Act (71), the Land Law (75) and the Rangeland Development Law (79), whose application reflected the regime's brand of unjust authoritarianism. The Conservation and Protection Act (98) and the Agricultural Land Property Law (99) enacted by Parliament overlap on key provisions, and because of the increasing complexity of land tenure issues, have since become obsolete.

NGOs and UN Bodies

NGOs, both local and international, working to solve environmental problems in Somaliland include Candle-Light, PENHA, Havoyoco, ADO, Xaqsoor (an affiliate of the Danish Refugee Council), Oxfam-GB, German Agro-Action, and Care International. The Food Security Analysis Unit (FSAU) as well as the World Food Programme (WFP) and other UN agencies are involved in the same sector. Representatives of the local NGOs listed above constitute the core of the Working Group and were closely involved with all aspects of APD's work on natural resource-based conflict. Some have engaged in collaborative work with

APD, such as Candle-Light, with whom APD organised an exhibition on alternative energy options (held in Hargeisa, on April, 2006) and Xaqsoor, who APD assisted with the removal of enclosures in Odweine (in March 2005, in collaboration with DRC and Xaqsoor, based in Burao) and Borama Districts (January 2006). The formation of a Somaliland Pastoral Forum (held on 23 March, 2006 in Hargeisa) with all key actors helped establish a sense of concerted effort and partnership in areas of common concern.

The Pastoral Community

Livestock production remains the mainstay of the Somaliland economy, despite the many and increasing challenges to pastoralism. Livestock well adapted to arid environments and ephemeral forage, such as camels, sheep, goats, and also cattle, provide sustenance for pastoral families but also embody the cultural values unique to the people of this territory (IUCN, 1997; APD, 2004). By the mid-1990s, livestock production was estimated to be the source of 80% of Somaliland's foreign exchange earnings (UNDP, 1998) [excluding remittances from the Somaliland diaspora].

Livestock population statistics extrapolated from a 1975 government census are disputed (APD, 2004) but most agree that overall numbers have declined in recent years, even as the human population has increased in the aftermath of the war (UNDP Human Index Report, 2002).

Once focused solely on subsistence, the commercialisation of the livestock trade brought the pastoral economy firmly into the marketplace (Pat Johnson 1999, Cindy Hollman, 2002). It also brought problems. The desire to raise and sell as many animals as possible encouraged rampant berka construction throughout the Haud, stretching the region's already limited carrying capacity. Increased numbers of sheep and goats (shoats) in particular have had a devastating effect on the environment; their stiff hoofs wreak havoc on the topsoil around water points if the land is not allowed sufficient time to recover through rotational grazing. The average annual export of a million shoats from Somaliland (50% originating from within the territory) once relieved some of this pressure. The ban on the import of Somali livestock by Saudi Arabia in 1998 reduced this safety valve, aggravating both the environmental crisis and rising tensions between communities.

Making a living from livestock is becoming more difficult and less sustainable with every passing year. Young men and women from over-stretched pastoralist communities migrate chiefly to Somaliland's four main cities of Hargeisa, Burao, Borama and Erigavo in search of work, but with few marketable skills many end up as burners, porters or guards in the charcoal trade.

Cast of Characters

The main players in the charcoal trade are the wealthy businessmen who organize and finance mass production and own the trucks, the coolies who work the pits, the porters and drivers who transport the charcoal, and the retailers who sell it. The larger traders who dominate the industry are often members of cooperatives, such as Nooleys and Cadceed in Hargeisa, which set prices and prevent outright competition among members. At the other end of the chain, the owners of retail charcoal stalls in urban centres are mainly women from the ranks of the urban poor. They ultimately decide the retail price per bag, but all claim that the business is not as lucrative as it seems. Candle-Light has also observed many women engaged in small-scale production near homesteads between Go'da and Burao². They constitute a small minority of poor pastoralists forced to supplement their meagre incomes with charcoal. In between, there are the many labourers and part-time village charcoal producers, often pastoralists who have lost their animals to drought or their livelihood to the livestock ban. The pastoralist generally has few good options beyond raising livestock. Once the animals have been sold off, often at too low prices,

²Impact of charcoal, CLHE et al., p. 20



A fully grown acacia tree being burnt to make charcoal



Thorny bushes are destroyed when the charcoal makers cut them down to protect the production site in their absence or when they abandon them after use: often livestock also get trapped in these makeshift enclosures



The loss of tree cover and surrounding bushes and grass damages the fragile ecosystem in this semi-arid environment and deprives livestock of browsing and shade

Trunks and branches of living trees are collected to burn for charcoal



Over 70 trees have been cut down here to prepare a kiln of branches for making charcoal

The weapons carried by charcoal producers reflect the hostility of pastoral communities to the destruction of the environment on which they depend for their livelihood and demonstrate the potential for violent conflict in the charcoal production business. Damage to the environment includes not only loss of trees but also uprooting of surrounding grass to cover the logs for burning



the household budget reduced to a bare minimum, the children sent to live with better-off relatives and cash collected from family in cities and, for the lucky few, relatives abroad³, charcoal is the last resort. The livelihoods of 60-65% of Somaliland's population are threatened by the imminent collapse of the pastoral way of life: those who have turned to charcoal for survival is of particular interest here.



A truck bringing charcoal for sale for domestic use in Hargeisa – urban households need cheap and viable alternatives

The Media

Somaliland's main radio station is a government-run medium wave outlet with limited transmission capacity, its signal barely audible in the further reaches of the state. The FM version of the same station is popular in Hargeisa, where reception is good. Another radio station, Horyaal, broadcasts through the Internet from Belgium via Norway.

Newspapers are numerous, though they tend to share similar layouts and format: headline news items packed onto the front page, a few articles from the readership in the body of the paper, ending with a sports page. A few offer Internet-based content. Critics point to low quality reporting, pervasive sensationalism and a lack of journalistic ethics. Defenders herald the papers as the vanguard of Somaliland's budding democratic aspirations.

Newspaper	Sun	Mon	Tue	Wed	Thurs	Fri	Sat
Haatuf	1	1	1	1	3	1	2
Jamhuuriya	1	1	1	1	1	1	2
Mandeeq	2	1	1	1	1	2,3	1
Ogaal	1		1		1		1
Horn of Africa	1				1		1
Codka Shacabka	1				1		1
Ladan							1

Languages printed in: Somali – 1; English – 2; Arabic – 3

The government-owned paper, Mandeeq, is relatively less popular. The majority of the rest are editorially anti-establishment, though this is driven more by sales strategy than firm principle, with a penchant for sensationalist, often unsubstantiated stories. Most papers sell less than 2,000 copies per edition; none is published daily. The TV stations are located in Hargeisa and broadcast to Hargeisa alone.

Despite these limitations, Somaliland's media can be a powerful tool in reaching the public. Two APD-produced documentaries on natural resource-based conflict (a third is now in the works) have aired repeatedly on local TV. The visual impact of charcoal's extensive environmental toll and evidence of the sheer enormity of the trade struck a chord among many audiences, including the government. These and other broadcasts on the subject led to the formation of a National Task Force of Ministers, nominated by the President, to look into the problem and potential solutions.

³SCF-UK/FSAU assessment report, March 21, 1998

Activities and Workshops

Workshops are a powerful tool to encourage broad-based, solution-oriented dialogue. The citizens of Somaliland typically welcome the opportunity to engage government officials and other decision makers to share their opinions on important matters. Women and minorities, particularly, welcome the open space for active participation.

To encourage maximum government interest and participation, the natural resource-based conflict workshops organised by APD almost always begin with opening statements from a senior Somaliland figure, such as a Minister or provincial governor. The Vice President inaugurated an exhibition of alternative fuels held in Hargeisa in March 2006; the Minister of Pastoral Development, Mr. Fuad Aden Adde, and the Minister of Water and Mineral Resources, Mr. Qasim Sh. Yusuf, each opened workshops. The Minister of Interior, Mr. Ismail O. Aden, authorised a number of field trips and mandated full regional authority cooperation with research teams.

APD has held nine natural resource-based conflict workshops, one each in Erigavo and Burao, five in Hargeisa and two in Borama.

Date	Workshop	Location
Feb 26-27, 2005	Working Group Meeting	Ming Sing Restaurant, Hargeisa
Mar 15, 2005	Workshop for Plan of Action	Academy premises
Mar 27-28, 2005	Removal of Enclosures in Oodweine	Oodweine
April 11-13, 2005	Interventions	Havoyoco Compound
May 25, 2005	Alternative energy, which way to go?	Haraf Restaurant Hargeisa
June/July 2-5, 2005	Interviews The Sanag enclosures workshop	Daware Hotel, Erigavo
Aug/Sept 2005	The Borama Enclosures	Mana Residence, Boroma
Oct 2005	Charcoal Producing Cooperatives	Haraf Restaurant, Hargeisa
Nov 2005	Greater Horn RBC Conference	Ambassador Hargeisa
Dec 2005 - Jan 2006	Trips to Togdheer and Sanag, opinion gathering	Togdheer and Sanag
Feb/Mar 2006	Strategic Planning Exhibition on Alternative Energy Sources	Mansoor Civil Service Commission Hall
April/May 2006	Enclosures in Borama Workshop on Charcoal, Burao	Mana Residence, Boroma Gabaxadi Restaurant, Burao

Workshop on Alternatives to Charcoal

This workshop sought to raise general awareness of the devastation caused by charcoal burning, and to discuss and promote viable alternatives. Participants included influential actors from government, NGOs and the business community.

Minister of Water and Mineral Resources Mr. Qasim Sh. Yusuf spoke at length in his opening remarks about the need for a concerted effort from Government, NGOs, businesses and the general public to address Somaliland's environmental crisis. He emphasised the need for regulatory procedures to manage the country's resources and decried current confrontational attitudes between ministries. The Minister encouraged local entrepreneurs to raise venture capital for mineral exploration in Somaliland.

Candle Light Director Ahmed Ibrahim presented his organisation's efforts to curb the effects of years of environmental neglect and abuse, focusing on an energy-saving charcoal stove that increases fuel efficiency by 20%. Participants noted that Candle Light's programme to disseminate the technology by training local manufacturers needs to be expanded, and suggested a sturdier design and cheaper selling price.

Dr. Ahmed M. Behi, former Minister of Water and Mineral Resources, presented the opportunities and challenges presented by Somaliland's promising coal deposits. The extent and quality of the reserves are still unknown but significant. Laws pertaining to resource ownership and land tenure are required before significant venture capital can be mobilised to exploit them, and a cost-benefit analysis will be necessary to understand the dynamics and impact of full-fledged exploration and exploitation, and minimise possible negative environmental and social effects of large-scale mining operations.

Workshop on Enclosures in Sanag

The Sanag Region lies at the far eastern corner of Somaliland, bordering the volatile Soul Region to the south and the neighbouring state of Puntland to the east. It is Somaliland's largest region, covering 43% of the country. Clan composition is varied, but Isaq and some Darod lineages constitute the main inhabitants. Erigavo, the regional capital, is home to many other clans that are exclusive to the region, some of which descend from ancient lineages.

An uneasy regional peace was consolidated through a series of locally initiated peace conferences in the early 1990s, but hostilities still simmer and occasionally come to a boil over access to natural resources and ownership of land and pasture. In spite of the efforts of both the elders and government institutions to thwart conflict, the region remains a potential hotbed of hostility, influenced in part by events in neighbouring Puntland and South Somalia. Clans are divided along allegiances to Somaliland and Somalia, and conflicts by and large reflect these divisions.

Eastern Sanag, an area with limited infrastructure and economic development inhabited mainly by the Warsangeli, lies beyond government control but under strong influence from competing state authorities in Puntland and Somaliland and divergent clan loyalties. The old Somali currency is still in circulation, indicative of the region's economic isolation from the rest of Somaliland. With its large expanse of grazing land, Sanag had been the largest livestock producer in the territory. The trade has suffered under the export ban and prolonged drought in the late 1990s, though this year's unusually heavy rains and subsequent abundant pasture have helped dwindling stocks to recuperate.

The Police Commandant reported that most conflicts in the region occur over pasture reserves. One recent example occurred in the area between God-Anod and Eel Afweyn, when enclosure owners moved their animals into grazing areas controlled by pastoral communities opposed to enclosures. Three people died in the violence, necessitating the engagement of clan sultans and police to avoid further bloodshed. The workshop held an unusual public discussion of the enclosure problem at the main mosque in Erigavo, with local imams taking part. The religious discussion contributed positively to the overall debate

by making reference to passages in the holy Quran forbidding private ownership of commonly owned land.

A panel of three elders and former grazing cooperative members led participants through evaluations of colonial era British Fodder Reserves, precursor of all such enclosures, and the now defunct socialist era cooperatives, current ownership of which is the subject of much argument and occasional violent struggle.

British Fodder Reserves

Mr. Jama Awale: “The British formed the reserves in 1952 – seerayaal – soon after forming the Forestry Department. Daalo and Ga’an libah were the first and largest - 384,000 hectares of prime forest land. Most major urban centres received a plot of land protected from grazing during the rainy season; these plots served as fodder reserves for animals belonging to families with children in nearby schools. A camel to be milked for each student grazed at the reserve and therefore helped the nomadic families move out to other areas while their children studied. Most notable personalities attended school this way. Everybody benefited from the arrangement.”

Mr. Awl Ali Mohamed: “The reserves were established at Hargeisa, Burao, Borama, Sheikh and Erigavo to the north of the town. These formed excellent environmental havens, protecting the flora and fauna. The trees grew and the grass flourished. It became a good site for all to enjoy. The poor got their firewood from the reserve. The wild animals found sanctuary in the tall grass and trees...the reserve guards were paid and worked well...”

Mr. Ali Buraale: “The reserves inspired many to establish their own. The British were however strict in their rules; only farms at certain locations were given licenses. The first farms appeared at Mirishi, Sanag Region, where sorghum was planted. The farms multiplied until the British decided to restrict areas where farming could be done. The road from Erigavo to Boran and the west bound road to Eil-Afweyn served as the divide between agricultural and grazing areas. Similar demarcations were formed at Kalabaydh, west of Hargeisa, and in the Haud, at Tuuyo plains.”

Workshop participants agreed that while the reserves had many benefits: conserving natural vegetation and wildlife, helping the children of pastoral families to go to school, serving as beautiful public sites for relaxation and rest, protecting nearby cities from cold wind currents (in Erigavo) and dust storms (in Burao) and increasing the economic interdependence of pastoral communities and urban dwellers, they also had their disadvantages. Situated too close to growing urban centres, the reserves attract trespassers looking to poach fodder or trees; many of the current conflicts have their roots in competition over plots of land carved out of the reserves.

Grazing Cooperatives

During the 1970s, the Siad Barre government allowed the formation of pastoralist cooperatives in Sanag Region. The best grazing areas were earmarked for the coops at 16 locations on the outskirts of Erigavo District. A coop consisted of 45 households, each contributing 10 shoats and one cow; the total 450 shoats and 45 cows formed the core of the coop’s property. Those who could not afford the contribution sold their livestock allocation to richer members of the coop, and so many of the coops ended up being dominated by wealthy members. Participants at the workshop heatedly debated coop formation, the dynamics of coop development and the consequences after the collapse of the regime.

Warsame argued that the coops were founded with good intentions and provided an excellent approach to livestock rearing through careful planning of stock numbers and fodder supplies. “It raised sufficient numbers of animal stocks to produce milk and meat for the market. While each family was allowed a limited number of extra stock to raise for private income, commonly owned stock were sold at the market or their products traded to finance development schemes at the coop site - dams, shelters, etc.”

A police officer from Erigavo countered: “there has been severe anguish over ownership of such land in the aftermath of the fall of Siad Barre. The police are flooded with conflict situations involving claims and counterclaims over land in such coop locations.”

The Agriculture Ministry’s regional representative emphasised that “these were coops for the rich where the poor had no role; the majority were urban elites and rich merchants with no pastoral background. They took away the best grazing land for private use and production was minimal. This instigated the land-grab fever in which everybody claimed personal plots at the expense of the pastoral population.”

Awl, a 100-year old Erigavo elder, added with obvious bitterness, “The first reserves appeared at Madareh in 1921 and from then on continued to expand. It is driven by greed, by possessiveness, by wanton disregard for the interests of others. It should be stopped, by force.”

On the second day the focus turned to ceshims - the fodder enclosures of Sanag. Hassan Ibrahim, a prominent district council member, facilitated a discussion of the linguistic origins of the term ceshimo, with most agreeing that the term has negative implications, conjuring ideas of war, possessiveness and greed. Older participants traced its origins to the eastern part of the region, where the ceshimo began. The ceshimo problem continues to expand towards the west and may soon engulf the whole region, depriving the pastoral community of land to graze their animals and ushering in disaster for the practice of pastoralism in the region.

Workshop on Charcoal Cooperatives

This workshop was held to gain first hand knowledge of the obstacles facing charcoal cooperatives, particularly in their relationships with government institutions and pastoral communities, and to understand the significance of land tenure policies in making the energy sector more sustainable.

Cooperative members in attendance were first asked a series of questions about their coops: membership, areas of operation, difficulties or obstacles presented by government or the public, industry income and prospects.

Mr. Hussein Naaleeye of the Cadceed Cooperative began by defending charcoal producers from frequent media attacks. “We have been unfairly characterised as demons that do not care for the land. We are as patriotic as anyone else. The government has failed us by not providing the necessary safeguards. We are hostages to prevailing circumstances. The land is taken up by nomads and we have to pay for it.”

He noted that his coop had started with 55 active members but that numbers had since declined dramatically. With the Saudi Arabian livestock export ban, he said, pastoralists seeking alternative sources of income were increasingly grabbing land and renting it out to charcoal producers. Mature standing trees are counted and multiplied by a certain basic price, negotiable at every juncture to determine the access

fee. The practice began with demands for food rations but has now evolved to a cash-only business. This hurdle, together with dwindling forest cover generally, has forced the charcoal producers to move to Ethiopia; much of the charcoal consumed in Somaliland is now smuggled from across the border. Yusuf Jaamc Guleid of Nooleys Cooperative reported that most of the group's 150 members had recently abandoned their trade, leaving only those with large vehicles. As prices charged by the pastoralists rise, so charcoal producers' profits plummet. Only those who can subsidise the trade by using their own trucks for haulage can cope with the narrowing margins.

Pastoral communities are also beginning to restrict access along clan lines. Charcoal producers must either to be of the same clan or use somebody of the same lineage as a proxy to neutralise any hostilities that may emerge. Pastoralist settlers, the producers say, are often well-armed and not afraid to fight. The coops' major complaint against the government revolves around lax enforcement of the laws and the protocols governing cooperative operations. Private charcoal producers operating outside the coop system are numerous and, according to Nooleys member Hassan Aideed, "have undermined the cooperative's economic viability." The Ministry of PD&E admits that they have no control over private producers, and cannot accurately calculate the quantity of charcoal they bring into Hargeisa. Some 50 charcoal trucks stream into Hargeisa every day, of which an estimated 10-20% are carrying privately produced charcoal.

Cooperatives must abide by government regulations in accordance with the Range Act and the Land Tenure Law, which is yet to be ratified by parliament. The cooperatives claim to enforce these laws among their members, including limits on harvesting and the use of proper equipment, and complain that private producers operate with no such restrictions.

In recent times the cooperatives have lost their sense of unity. Each member fends for himself and those that remain in the business, according to Hassan Aideed, have survived by allowing members to act individually.

How Charcoal is Made

Inefficient traditional charcoal production methods are still widely in use: both the mound type and the ditch type waste 20-30% of the base wood. Logs are piled around a central vertical-standing log, covered with soil save for an air vent on the leeward side, and set alight. When the smoke thins out the fire is extinguished by closing the vent. A Ugandan charcoal expert brought in for the purpose demonstrated methods of reducing wastage by as much as 20-25%.

Fig. 1 Charcoal kiln, trench-type

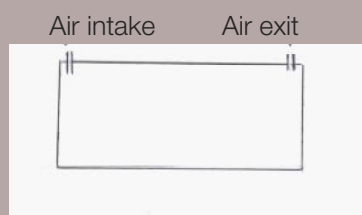
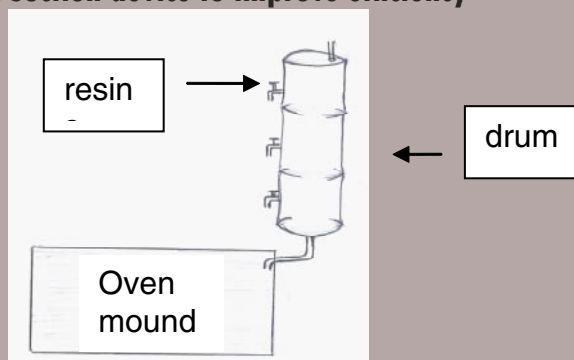


Fig. 2 Charcoal kiln with suction device to improve efficiency



Many vehicles ferrying the charcoal self-incinerate when embers remaining from the mound catch fire as the vehicle begins to move and wind ignites the flame. Abdirazak Harayub, a Nooleys member, says that his coop has lost two trucks to this problem over the past six months. A further nine trucks were either seized or burned by Ethiopian security forces for illegal entry into their country and engaging in the contraband trade of charcoal in the past year. The Cadceed coop lost two vehicles this way.

Costs of Production

Labour costs at site	1,400,000 sh sld
Axes, donkey cart, water	150,000 sh sld
50 plastic bags @1,500	75,000 sh SLD
Local/central gov't taxes	60,000 sh sld
Porter charges	300,000 sh sld
Vehicle hire	800,000 sh sld
Coop charges	20,000 sh sld
Plastic tie knots	20,000 sh sld
Total	2,800,000 sh sld
Selling price per bag:	14,000 sh sld
Price of truckload (200 bags):	Total: 2,825,000 sh sld

With such narrow margins one wonders how the business survives at all, though truck owners do save some of the 800,000 sh sld vehicle hire cost.

Working Group Meetings

The Working Group guided the core activities of the natural resource-based conflict research, frequently participating directly enriching the work.

The first Working Group meeting was convened at the Ming Sing restaurant in February 2005, bringing together key actors to plan a course of action. Representatives from the Ministries of Interior, Pastoral Development and Environment, Livestock, Water and Mineral Resources, the Police Commission and the Judiciary joined NGO representatives from ADO, VetAid, Oxfam, Havyoco, Candle Light, PENHA, Xaqsoor/DRC, WFP and APD.

The meeting began with a film depicting the main issues surrounding natural resources based conflicts, followed by a discussion of possible actions to address them. Xaqsoor made a presentation describing its campaign to stop all charcoal burning activities in the Haud area of Odweyne District and remove illegal enclosures from grazing areas, prompting a call for an assessment tour of their work in these areas.

The second session began with a short film depicting the dramatic ecological devastation of the Haud that had been observed on the tour. The film's striking imagery reinforced the need for immediate action, and inspired WG participants' continued involvement by showing members in action in the field.

The Group resolved to plan and conduct a public awareness campaign on charcoal through local media outlets, with parallel education and training programmes. All WG representatives also agreed to present their respective projects at the next group meeting in order to address any gaps or duplication in their work.

Field Trips

Field trips allow for a more in-depth understanding of the issues, as well as providing opportunities to film and conduct interviews with key local players. Teams conducted intensive fact-finding trips to Odweine, Borama and Erigavo Districts over the course of the research.

Odweine

This tour visited Sabawanag, Balli-Ahmed, Haro-Sheikh, Cabdi Dheere, Xaydaanle, Gudubi, and on a return trip met residents of the villages of Qolqol and Abdi Farah. Throughout, APD's Audio-Visual Unit filmed charcoal burning operations and the devastated surrounding countryside. Several coops operating in Odweine produce significant quantities of charcoal for Togheer and Hargeisa Regions, though much is also ferried to the ports of Bosasso and Borama for export to the Gulf States.

Though the visit took place at a time when pastoral communities generally face extreme difficulties in finding pasture and water, rains in late November had left people and animals in relative good health, with adequate (though fast receding) pasture and water supplies and a general climate of peace. Animals were watering at Hara Sheekh and Abdi Farah, and pastoral populations from other areas had moved in to share what was left of dwindling pasture on the Tuuyo Plains. The situation could seriously change if the Gu rains in March/April fail.

Xaqsoor/DRC projects to address charcoal burning and illegal enclosures were inspirational. Villagers expressed their satisfaction with the campaign to jail charcoal burners who cut down living trees, and with a peaceful, voluntary programme to remove enclosures. The headman of Abdi Dheere reported that he had set fire to his own fence so that others would follow suit. All other village headmen and elders had persuaded owners to willingly dismantle their enclosures, providing an excellent example of involving local communities in practical solutions. APD pledged to support the follow-up campaign.

Borama

Local communities requested APD and Xaqsoor to assist with the removal of enclosures in Borama, one of Somaliland's most settled and fence-ridden districts, after the successful tour of Odweine. Xaqsoor, a local affiliate of DRC, had held an earlier workshop in Borama where participants identified enclosures as their most pressing problem; the grabbing of land by a few had triggered a frantic race for all available land. Gemstone mining is quite widespread in Borama and the Awdal Region generally, adding a further valuable natural resource as a common source of conflict.



APD researcher Ali Egeh participates with the Somaliland NGO Xaqsoor in consultations with elders who had requested help in removing enclosures of traditional grazing lands in Boroma district © Xaqsoor

APD provided support to Xaqsoor by arranging for an open public dialogue on the issue of removing fences, with the goal of building consensus and convincing owners to remove fences voluntarily. The work began in earnest on March, 2005, with APD providing vehicles for two field teams.



Community volunteers working with the help of Xaqsoor and APD to remove the enclosures in Boroma district © Xaqsoor

The terrain was difficult, but villagers of Shabeelaley and Dhego Laqas were gathered to meetings where all agreed that the enclosures should be removed; many volunteered their support. There were a few hitches along the way: one Xaqsoor member was nearly assaulted in Dhego Laqas for suggesting that the villagers do the work themselves. Although Xaqsoor members were from Togdheer Region, some had read outside intervention into the initiative - an allegation that had no basis. Several committees have been formed at Qolojeed, Borama and Boon to ensure that enclosures do not return.

Interviews

During the course of the project, researchers interviewed a wide range of people – charcoal producers, traders, transporters, retailers, pastoralists, concerned citizens, scholars, police officers, judges and senior government officials. The Ministry of Pastoral Development and Environment was particularly helpful.

A series of interviews with women about their own use of charcoal as consumers revealed that most Somaliland households use inefficient, flimsy local stoves made from tin cans. Meerschaum stoves imported from Eel-buur, Somalia, are more popular and efficient but too small for cooking; they are used mainly to rekindle the next day's hearth. A larger version of this stove could prove to be a good alternative to the tin stoves, combining efficiency, acceptability and durability.

Literature Review

Research teams conducted an extensive review of all relevant literature, including United Nations publications on Somalia from the 1960s to the '80s for historical background. Recent documents produced by Oxfam, Candle Light and particularly IUCN have been very useful, and APD/ WSP's The Livestock Economy was crucial to understanding the basic dynamics of pastoral living.

Consultants

Consultants hired by the project were mainly government officers with specific expertise. The Ministry of Pastoral Development and Environment offered useful information on Somaliland's fauna and flora. Ministry of Water and Mineral Resources officers provided crucial input on mineralogy. Eng. Ahmed Behi, a former Minister of W&MR, was extremely helpful in describing the potential and problems of exploiting Somaliland's coal reserves.

Exhibition on Alternative Energy Resources

A 3-day exhibition presenting practical alternatives to charcoal was a valuable exercise in drawing public attention to possible solutions to the crisis. Organised by APD and Candle Light, with assistance from the Ministry of Pastoral Development and in close cooperation with local NGOs such as ADO, Havoyoco, Nagaad, INGOs like Oxfam GB and PENHA, and the business community, display topics included:

Efficient use of Charcoal

Candle Light and ADO presented technologies for efficient charcoal production and usage, focusing on energy-saving stoves and machines that turn waste charcoal dust into briquettes. Briquetting reclaims the charcoal that is wasted due to crushing and mishandling; coops report that as much as 10% ends up as unsightly piles of black dust. Candle Light also exhibited samples of charcoal produced from *Prosopis juliflora* – an invasive shrub that has colonised vast areas along the coast, displacing indigenous vegetation and choking local biodiversity.



NGO Candlelight samples of compacted charcoal dust

Solar Energy

Local businesses and NGOs mounted four impressive displays showcasing a range of solar technologies: reflectors, PV cells and mobile telephone chargers. A women's organisation, SAWDA, served hearty traditional Somaliland cuisine prepared with solar cookers designed by ADRA and built by local carpenters from local materials.



Saafi Shop demonstrates a variety of uses for solar energy panels, watched by a member of a visiting delegation from South Africa

Wind Energy

A locally assembled tri-vane wind generator displayed by Somaliland Free Energy was the star of the exhibition. The brainchild of Eng. Mohamed Nuh, a Glasgow-trained professional and Diaspora returnee, the 8-metre windmill moves magnificently under a gentle breeze, generating an impressive 3 KW. Except for the electronic controls and magnets at its core, the machine is made of local materials, making it relatively affordable (USD 400-1,000) and easy to maintain.

Coal

Coal is found in vast quantities in Somaliland's mountainous ridges, but any attempt to exploit these reserves must be planned carefully to avoid further environmental problems or clan conflicts in areas where the deposits are found.

Exhibitions on coal from SONYO, a local youth organisation, and the Institute for Earth Sciences (IES) headed by Eng. Ahmed Mohamed Behi, a former Minister of Water and Mineral Resources, drew enthusiastic crowds. Dr. Behi gave an informative talk on Somaliland's geological formations, the extent and characteristics of her known coal deposits, and the requirements for commercial exploitation. Lignite mined in Daban area, Sahil Region, for example, is of lower quality and BTU value than the largely bituminous deposits found in the Hodmo area of Eel-Afwein District.

Coal burning stoves displayed by Somaliland Free Energy and a Berbera-based company shared similar characteristics, both with an enclosed hearth and chimney. But poisonous gases such as sulphur dioxide and methane that are emitted as coal combusts must be removed in advance before such stoves are adopted for household use. One suggestion is that the coal be crushed and left out in the open air to let the methane gas percolate into the air. Second, the sulphur content could either be washed out with hot water or burned in a closed combustion kiln. Any escaping gases in this arrangement would be fed back into the kiln and re-ignited – encouraging complete combustion. The third suggestion is to turn the coal into 'briquettes' after passing through a series of mechanised purification and contaminant reduction processes.

Liquified Petroleum Gas (LPG)

Yusuf Seed (YS), Somaliland's largest importer of LPG, sent a team of salesmen and technicians to the exhibition to demonstrate their fuel's convenience and efficiency. YS salesmen related the difficulties they face in mass marketing their product - high shipping insurance costs, distribution snags, consumer fears of exploding cylinders, and lack of government support, for example in terms of tax exemptions.

Films

The APD Audio Visual Unit screened three environmental documentaries – on charcoal burning, natural resource-based conflicts and the livestock economy – to enthusiastic audiences in the CSC hall.



A wind generator designed by Eng Mohamed Nuh and made locally by Somaliland Free Energy



Raw coal deposit samples from Sahil region, presented by SONYO and the Institute for Earth Sciences



LPG stoves demonstrated by Oomaar Enterprises

Visiting Dignitaries

The event was attended and supported by several major public figures, serving to raise public interest. Somaliland's Vice-President opened the exhibition, exhorting participants to support solutions to the environmental crisis. He thanked the Academy and CLHE for organising the exhibition and applauded the Ministry of Pastoral Development and Environment for its contribution in bringing the critical issues of land degradation and deforestation to the fore of the national agenda.



The exhibition was opened by the Somaliland Vice President, Ahmed Yassin, (second from left) and the Minister of the Environment, Fuad Aden Adde, (far left): APD researcher Ali Egeh (right) greets other dignitaries

National Strategic Plan Workshop, Mansoor Hotel, Feb. 2006

In his opening statement Minister of Pastoral Development and Environment, Hon. Fuad Aden Adde, placed blame firmly on outsiders for the devastation of Somaliland's environment, alleging that people hired from outside the country are decimating forests in Qadawga, near Alleybadey District, that the traders who hired them are residents of Gabilay District, West of Hargeisa, and that they come from among that district's educated elite.

"What do we need to do?" he asked. "I see that our trees are on the point of extermination and would surely be wiped out." The National Strategic Plan Workshop sought to answer his question. He concluded with the Somali proverb, "War lahelyaaba talo lahel," literally, "to know the problem is half the solution."

Mr Ali Egeh (APD) gave an overview of alternatives to charcoal, summarised below:

1. Introduction

- Charcoal is Somaliland's principal source of fuel energy
- Acacias are the most popular charcoal trees, and are disappearing quickly as a result
- Recent rapid urban population growth has increased demand for charcoal
- Low rainfall and decreasing livestock numbers are attributable to the above

2. Production estimates

1.5 bag of charcoal used per household per month for estimated 70,000 households in Hargeisa
 $70,000 \times 1.5 \text{ bags} = 105,000 \text{ bags per month}$
 $105,000 \text{ sacks} \times 18,000 \text{ sh sld per sack} = 1,890,000,000 \text{ sh sld per month (US \$300,000)}$

3. Interventions required

- Seek alternatives to wood fuel energy
- Fight poverty through a sustainable poverty reduction strategy/accelerate economic growth
- Adopt a multidisciplinary approach to solving multidimensional forestry sector problems
- Develop programmes and projects for the optimum utilisation of forest products
- Emulate existing successful programmes in the region
- Develop forest research data

- Develop policies and laws to address land and tree tenure and sustainable development of forest resources

4. Tackling charcoal head-on

Recommendations include, at the production site:

Improved kilns; Better management of forest resources/using other tree species for charcoal; Better training for producers, to reduce wastage

And in households:

Economise through the use of energy-saving stoves, such as those developed by CLHE; and public awareness campaigns/ change habits of misuse

5. Alternative Energy Options

Hydrocarbon-based: Kerosene; Liquefied Petroleum Gas (LPG);

Processed Coal

Biomass-based: Biogas; Cow dung; Compacted leaves & organic matter

Electrical: Access to Ethiopian Grid Line via Tog-wajaale; Steam generators; Wind generators; Tidal wave power

Solar: Solar cookers; Solar panels

Mr Egeh distributed a comprehensive list of questions to be addressed in selecting an appropriate energy source, (see Annex 3).

Participants agreed that the top three priorities were to:

1. Improve the efficiency of charcoal production
2. Improve the efficiency of charcoal and wood fuel use
3. Explore alternative sources of energy to reduce the demand for charcoal

Consensus was reached that the priority alternative fuels were:

1. Kerosene and LPG
2. Processed coal
3. Solar and wind energy

The SWOT analysis of the priority fuels is presented in table 1.

Recommendations included:

Supply side:

- Improve kiln efficiency (immediate)
- Confine production to selected spots in districts (immediate)
- Invite community collaboration and participation
- Control/manage production areas (immediate)
- Raise community awareness (immediate)
- Assess charcoal production (urgent)
- Reforest depleted sites
- Make maximum use of each tree harvested, including stumps



NGOs ADO (and also Candlelight) present energy efficient stoves at the Alternative Energy Exhibition in Hergeysa, March 2006

- Encourage all stakeholders' to participate in decision-making
- Introduce motivational micro-credit programmes
- Improve tree and land tenure
- Harvest the invasive Prosopis Julia Flora (garanwaa) for charcoal and wood fuel

Demand Side:

- Improve efficiency and affordability of energy saving stoves
- Conduct public awareness campaign through the media
- Waste charcoal dust to be compacted with sawdust
- Challenge and change household cooking practices
- Business outlets: number and owners
- Enforce export ban
- Encourage regional & district self-sufficiency

Table 1 SWOT analysis of alternative fuels

WG I: KEROSENE

Strengths	Weaknesses	Opportunities	Threats
a. Available in the market (kerosene, stoves) b.No need for research c.No health hazards d.Cheaper than LPG e. Portable f. Can be used in rural and urban areas	a. Imported b. No policy and regulations c. No controlled prices during supply shortages	a. Socially acceptable b. Tax exempted (subsidised) c. Funded by community internally	a. No appropriate training b. Sometimes causes fires c. No constant and reliable supply d. High prices during shortages e. Low awareness of its uses/advantages f. High potential trade with neighbouring countries

Recommendations:

- Encourage mass importation of kerosene and stoves to insure consistent, widespread supply
- Conduct mass public awareness campaign about the advantages of these fuels
- Conduct training at household and community levels (uses and safety measures)
- Remove import taxes
- Control transport across borders
- Set clear regulations/policy
- Control prices

WG 2: COAL

Strengths	Weaknesses	Opportunities	Threats
<p>a. Presents the most appropriate alternative to wood or charcoal</p> <p>b. Reserves available in several regions of Somaliland, including Sahil, Sanag and Awdal</p>	<p>a. Lack of adequate information on the extent of deposits</p> <p>b. Lack of infrastructure to access deposits</p> <p>c. Lack of government policy governing coal</p> <p>d. Lack of coordination among various stakeholders</p>	<p>a. Can reduce forest destruction</p> <p>b. Suitable for long-term development</p> <p>c. Cheap once developed</p> <p>d. Labour-intensive (income generation/job opportunities)</p> <p>e. Can replace established charcoal networks</p> <p>f. Affordable to rural/urban</p> <p>g. Can generate electricity for household and industrial uses</p> <p>h. Earns foreign currency</p> <p>i. Large-scale production encourages industrialisation</p>	<p>a. Harmful gases must be removed before combustion</p> <p>b. Without proper care and knowledge, mining may have negative environmental impact</p>

Recommendations

- Initiate immediate research on quantity and quality of reserves
- Encourage mine development and production
- Build capacity of small-scale miners
- Advocate for comprehensive government energy policy

WG 3: SOLAR ENERGY Household uses (heating, cooking, and lighting) and agricultural uses (irrigation/pumping)

Strengths	Weaknesses	Opportunities	Threats
<p>a. An abundant resource</p> <p>b. Solar panels can be locally assembled, creating jobs</p> <p>c. Increases in demand will eventually reduce costs</p> <p>d. Environmentally-friendly</p>	<p>a. Few trained, skilled technicians</p> <p>b. Equipment is fragile</p> <p>c. Limited consumer awareness/ confidence in technology</p> <p>e. No policies governing use</p>	<p>a. Economic development</p> <p>b. Immediately accessible</p> <p>c. 25% of urban people could afford solar technology</p>	<p>No threats</p>

Recommendations:

- Increase the number of trained technicians to install and maintain
- Conduct a consumer awareness raising campaign
- Offer subsidies, tax incentives and credits to importers, assemblers and consumers

Recommendations on future goals and activities

The following tables present the recommendations made on 9 key goals.

Working Group: KEROSENE & LPG

1. Goal: Introduce kerosene and LPG as viable alternatives to charcoal

Activities	Time frame	Person(s) responsible	Resources needed
1) Encourage business people to import sufficient quantities of stoves and fuel	March- May 2006	Presidential Task Force APD Other stakeholders	Meeting hall, refreshments, stationery, facilitators (APD)
2) Advocate for import tax exemption on fuel and stoves	March 2006 –March 2010	Govt, MOF, ME&PD, MOP Govt. Task Force APD Chamber of Commerce	Meeting hall, refreshments, stationery, facilitators (APD)
3) Raise mass community awareness through media campaigns	March 2006- March 2007	ME&PD, MOI, PPP, Somaliland TV	Nagaad/Tisqaad handout (APD, CLHE)
4) Set up strong regulating policies	March 2006- March 2010	Parliament ME&PD	Govt. to provide sitting allowance
5) Conduct safety training programmes at household and community levels	March 2006- March 2007	Local NGOs (e.g. Nagaad)	Training materials, facilitators, funds

Working Group 2: COAL

2. Goal: Explore coal as an alternative energy source

Activities	Time frame	Person(s) responsible	Resources needed
1) Gather geological data	March 06-March 2007	MOWM, PPP	Funding, manpower, equipment
2) Visit coal sites and identify prospective reserves	Ongoing	MOWM, PPP	Funding,
3) Conduct site characterisation a. Pitting and trenching b. Sample collection c. Chemical analysis	Ongoing	MOWM, PPP	Funding, manpower, equipment
4) Evaluation	Ongoing	MOWM, PPP	Funding, manpower, equipment
5) Report writing	Ongoing	Consultant to be hired	Consultancy costs and report publication costs

3. Goal: To develop and exploit selected sites

1) Conduct drilling and core extraction	April 2007-April 2008	MOWM, PPP	Funding, manpower, equipment
2) Build the capacity of small-scale miners	Ongoing	MOWM, PPP	Funding, manpower, equipment
3) Develop infrastructure	Ongoing	MOWM, PPP	Funding, manpower, equipment

Working Group 3: SOLAR AND WIND

4. Goal: Provide 20-25% of population with appropriate technical, material & financial resources to harness solar/wind energy

Activities	Time frame	Person(s) responsible	Resources needed
1) Train 60 NGO/CBO technicians	6 months	Fuel energy committee, all stakeholders	Training equipment, training centres, expert facilitators
2) Establish community outlet centres	3 months	Fuel energy committee, all stakeholders	Imported material infrastructure, training centres, equipment, ToT investment
3) Target 20 farms as pilot in Hargeisa region to use solar energy	6 months	Fuel energy committee, all stakeholders	Imported material infrastructure, training centres, equipment, ToT investment

5. Goal: Increase national public awareness programmes on alternative energy

Activities	Time frame	Person(s) responsible	Resources needed
1) Integrate solar/wind energy use into school and university curricula	18 months	MOE Fuel energy committee All stakeholders	Policy, education curricula, equipment, funding
2) Allocate three radio/TV news programmes per week	Ongoing	MOI, MA APD All other stakeholders	Program production costs

6. Goal: Develop appropriate energy policies with emphasis on alternative sources

Activities	Time frame	Person(s) responsible	Resources needed
1) Impose quality control on imported solar and electronic equipment	Ongoing	Fuel energy committee, PPP All stakeholders	Policy on quality control measures
2) Publish appropriate and affordable equipment manuals	Ongoing	Fuel energy committee, PPP All stakeholders	Policy on quality control measure
3) Lobby Government to conduct pilot experiment	Ongoing	Fuel energy committee, PPP All stakeholders	Policy on quality control measures

Working Group 4: CHARCOAL

7. Goal: Increase efficiency of converting wood to charcoal

Activity	Time frame	Person(s) Responsible	Resources Needed
1) Provide & demonstrate prototype kilns	April 2006- Aug 2006	ME&PD, NERAD LNGOs, INGOs	Funding & consultancy
2) Enhance charcoal producers' awareness and skills through demonstrations	April 2006-Dec 2007	ME&PD, NERAD LNGOs, INGOs	Training & funding
3) Improve charcoal producers' awareness of appropriate tree harvesting and management techniques	March 2006 –ongoing	ME& PD, LNGOs	Awareness raising

8. Goal: Increase biomass supply

Activity	Time frame	Person(s) Responsible	Resources Needed
1) Establish community based tree nurseries through credit systems	Aug-Dec 2006	ME&PD LNGOs, INGOs NERAD	Funds Training
2) Reforest selected sites	Jan-Dec 2007	ME&PD, NERAD LNGOs, INGOs	Funds Training
3) Collect data and information on Forest cover and species	2006-2007	ME&PD, NERAD LNGOs, INGOs	Funds Training
4) Establish collaborative forest management systems	2006-2007	ME&PD, NERAD LNGOs, INGOs	Funds Training

9. Goal: Decrease charcoal consumption at the household level

Activity	Time frame	Person(s) Responsible	Resources Needed
1) Increase availability & affordability of imported cooking stoves	July-Dec 2006	ME&PD, NERAD	Funding Practical
2) Create awareness on the proper use of improved cooking stoves	Ongoing	ME&PD, NERAD LNGOs, INGOs	Funding Practical demonstrations

Conclusion of the National Strategic Plan Workshop

At the end of the session a committee was selected to implement the workshop recommendations, including representatives of APD, VetAid, CHLE, PENHA, FOPAG, IES, FE, Havayoco, SOYRA, FAO/FSAU and NAGAAD.

The first order of business after the workshop will be to redraft and circulate the proposal before holding a meeting with the Environmental Task Force to brainstorm implementation strategies. Sub-committees will then be established to formulate policies for exempting tax on kerosene and developing a comprehensive national energy policy.

The Pastoral Forum

As the pastoral community is now marginalised in all matters of policy; the continuous encouragement of a more participatory, enabling and empowering approach will be a major priority. The formation of a national Pastoral Forum, scheduled initially for March 2006, as well as pastoral associations at grassroots levels, will be central to achieving this goal. These two measures will also help to strike a balance between local initiatives and those of international organisations and government authorities at district, regional and national levels⁴.

The Presidential Task Force

The Vice-President's call on December 23rd, 2005 for immediate nationwide action to curb the menace of environmental degradation was a direct response to the public debates, demonstrations and campaigns held through this project. The President nominated a task force of four ministers to draft systematic policies governing the energy sector, and charcoal in particular. Their first action was to ban the export of charcoal, though the absence of similar policies in neighbouring Puntland and Djibouti 'poses serious threats to the effectiveness⁵ of this measure. This problem highlights the need for inter-regional cooperation, effective policing and sanctions in the form of imprisonment and fines for smugglers. Recent reports indicate that charcoal export continues unabated.

At a March 2006 meeting of the Presidential Task Force attended by the Minister of Pastoral Development and Environment, Minister of Livestock, NERAD chairman, the seven members of the Parliamentary Committee for Environment and Natural Resources and NGO representatives, participants adopted workshop recommendations as the foundation of a strategic plan for finding alternatives to wood and charcoal. The meeting also resolved to hold an exhibition of practical alternatives, to be coordinated by APD, and mandated APD to draft policy outlines for the Ministers to flesh out, adopt and eventually forward to Parliament to be made into law.

Further Hurdles

The Ministry of Pastoral Development and Environment, the government agency responsible for charcoal, is confined in its current role to regulating production through a loose cooperative of traders. The Environment Conservation and Protection Act (No. 04/98), entitles the Ministry to issue licences to producers, but this mandate has been abused and too many licenses have been issued. There are no land tenure laws in place and no forest guards to protect dwindling forest cover. The Ministry has only 110 staff at its disposal; the best-qualified people tend to seek lucrative jobs with international NGOs.

The coops do not share capital investment in equipment and hence share no common liabilities. The Ministry of Pastoral Development and Environment charges a token amount on in-coming charcoal traffic at city control posts, but even this small amount does not show up in government accounts; the current

⁴The constitution of SOLPAF (Somaliland Pastoral Forum) is detailed in Annex III.

⁵The Vetsaar, Issue No. 4, Dec. 2005

Minister of MPD&E has ordered a stop to the collection of these fees. The coops complain that private charcoal producers do not respect key government rules, such as the prohibition on cutting live trees.

Local and International Environmental NGOs guard against the intervention of 'outsiders' into their areas of operation. PENHA, for example, was initially apprehensive about APD's involvement in resource-based conflicts, though the situation was resolved amicably as it became clear that APD's goal was to work with all stakeholders equally.

The Costs of Energy

Electric Power: Electrical energy, a vital element for development in any country, is beyond the reach of many households, as it is exceptionally expensive (at US \$0.8 per KWH from diesel generators in Hargeisa and other towns). In Djibouti, known for its exorbitant energy prices, the price of electricity is comparatively low at US \$0.25 per LWH. The best electricity prices to households in the Greater Horn is Ethiopia which charges US \$0.06 per KWH. Ethiopia presently produces 750 mw (Fortune Vol. 7 No. 337). An interesting option to explore would be to have the Ethiopian Grid reach Somaliland major towns.

Kerosene: In Hargeisa, a family of five uses a daily average of one litre of kerosene for cooking. At a retail neighbourhood kiosk price of 3,000 shsld per litre⁶ this amounts to a total monthly expenditure of 90,000 shsld (\$US 14.30). Petrol stations sell kerosene in bulk at 2,500 shsld per litre, a 22% discount, but most opt for retail kiosk convenience. Most women, the traditional food preparers, agree that the common Chinese-made kerosene stove cooks faster and cleaner and so it is a matter of availing these stoves at an affordable price, reducing the \$10 retail price tag that puts it out of reach for many families, and allaying the widely held fear that the stove is liable to explode.

LPG (Liquefied Petroleum Gas): LPG used to be imported from Djibouti but because of heavy tariffs and high transport costs it now comes from the United Arab Emirates. Quantities remain very low but are growing steadily. Yusuf Oomaar, a prominent businessman involved in the trade, notes that many business outlets, mainly restaurants, use LPG for its cleanliness and efficiency. High costs are the main stumbling block to widespread adoption.



An average household in Hargeisa uses one milk tin of charcoal per day, amounting to a cost of less than US \$10 a month

⁶ At an exchange rate of Somaliland shilling to US dollar of 6,300:1

LPG Costs

Container size	Deposit	Re-fill	Approx. duration of usage per family of 5
100 litres	\$55	\$75	45 days
50 litres	\$30	\$40	30 days
25 litres	\$20	\$21	20 days

Charcoal: By comparison, a household of five uses an average of one milk-tin of charcoal per day, costing 2,000-2,500 shsld, or 60,000-75,000 shsld per month (\$9.53). This is \$4.76 cheaper than retail kerosene and \$1.59 less than bulk kerosene. Again, bulk charcoal is cheaper: the same family requires two to three bags per month, costing 30,000-45,000 shsld. Charcoal is available everywhere, and stoves made by local blacksmiths are cheap - at 4,000 shsld - and also widely available, but need to be replaced every two months. And apart from charcoal's environmental disadvantages, there are potential health hazards for consumers: carbon monoxide inhalation due to incomplete combustion when the fuel is burned indoors can cause death.

Summary of Costs of Energy

		Kerosene	Charcoal
Unit purchase per day/total per month		3,000/90,000 shsld	2,000/60,000 shsld
Bulk purchase per month		70,000 shsld	45,000 shsld
Cleanliness			
Thermal output			
Efficiency			
Initial investment		\$20	\$.05 - \$1
Deaths	Due to CO inhalation		
	Due to explosion		

Nearly 90% of Somaliland's urban households use charcoal for their main energy needs, and they will continue to do so until the cost of other fuels can be lowered through tax breaks and other subsidies, distribution networks can spread to compete with charcoal's convenience, and public awareness rises. Doing away with the trade entirely is not feasible, but alternative fuels can reduce the demand, and the environmental damage.

Tariffs on Fuel

Total LPG imports in 2003 of 22,359 litres attracted levies at ports of entry amounting to 8,411,342 shsld (@\$1,300), at a rate of \$0.30 per cubic metre. Including other charges - surtax, stamp duty, income tax, harbour tax, etc. - total taxes amount to 25%. Total kerosene imports for 2003 of 2,500 cubic metres yielded tax revenue of 15,128,383 shsld (approx. \$US 2,400), or \$140 per cubic metre. When other charges are added the total tax is 12%. LPG and kerosene stoves are taxed according to size and make, but cumulative taxes and fees amount to 25% for both.

The tax on charcoal is negligible - 200 shsld for a bag of charcoal or 40,000 for a truckload of 200 bags. Because the charcoal trade generates revenue that largely remains within Somaliland, provides cheap fuel

to the poor and employs many people, the ramifications of raising taxes will need to be studied carefully before tax policies are finalised.

Community Involvement

In view of the conflicting sets of laws governing land use, a stronger involvement of the central government and the local communities is likely to improve the situation. Working group sessions recommended the formation of locally initiated associations at district or village levels to help regulate access to grazing areas and forests, establish community controlled reserves and initiate reforestation projects. The government can assist by establishing national parks and game reserves to serve as sanctuaries for vegetation and wildlife now being decimated through poaching and the expansion of human settlements. Government could also assist by establishing a national forest research centre to organise and gather comprehensive, in-depth data on the state of the country's forests and in consequence chart out remedial solutions for any problems that appear.

Health Effects

A study by researchers at Harvard and the University of California Berkeley found that promoting cleaner, more efficient technologies for producing charcoal in Africa can save millions of lives and have significant climate and development benefits⁷. The study estimated that 470 million tonnes of wood are consumed each year in sub-Saharan African homes, more per capita than any other region in the world. It furthermore states that 1.6 million people, primarily women and children, die prematurely each year worldwide: "Smoke from wood fire used for cooking will cause an estimated 10 million premature deaths among women and children by 2030 in Africa," and will release 7 billion of tonnes of carbon into the atmosphere by 2050. "If rapid urbanisation continues - and all signs indicate that it will - then the trend is going to be toward greater charcoal use in Africa because it is the most affordable source of household energy." The report recommends the adoption of more efficient charcoal production technologies and sustainable wood harvesting.



⁷Journal of Science, April 1, 2005

Conclusions

The Presidential Task Force recently reported that Somaliland's forest cover has reduced from 24 million trees in 1960 to only 8 million trees today, due largely to the growth of settlements, decreasing rainfall and the absence of regulatory policies.

As Somaliland's demand for charcoal grows, priority will need to be assigned to the management and sustainable use of forest resources that provide basic needs for fuel and fodder and contribute valuable environmental services in the form of soil protection, biological diversity and carbon sequestration.

The main challenge will be to strike a balance between measures aimed at forest preservation, conservation through improved management, conversion to other land uses (e.g., agriculture) and reforestation. Government must limit its role to those activities that cannot or will not be carried out by others, and form partnerships wherever possible with important stakeholders such as businesses, pastoralist communities, 'tuulo' elders and other traditional leaders to find lasting, concrete solutions to the devastating problems caused by charcoal.

Acronyms Used

APD	Academy for Peace and Development
CLHE	Candle Light for Health and Education
PENHA	Pastoral Emergencies Network for the Horn of Africa
FOPAG	Forum for Peace and Governance
IES	Institute for Earth Sciences
FE	Free Energy
HAVAYOCO	Hargeisa Voluntary and Youth Cultural Organization
SOYRA	Somaliland Youth Rehabilitation Organisation
FAO/FSAU	Food and Agriculture Organisation
NAGAAD/TISQAAD	Women's Umbrella Organisation
WG	Working Group
MM&WR	Ministry of Mineral and Water Resources
MPD&E	Ministry of Pastoral Development and Environment
NERAD	National Emergency and Research Agency for Disaster
LNGO	Local Non-Governmental Organisation
INGO	International Non-Governmental Organisation
LPG	Liquefied Petroleum Gas

Annex 1: List of Working Group Members

1. Ahmed Ibrahim Awale	Candle Light for Health and Education (CLHE)
2. Saadia Muse	PENHA
3. Hassan Abdi Jama	Ministry of Agriculture
4. Abdirahman Jama Hayan	District Court
5. Ahmed Jama Sugulle	Ministry of Pastoral Development and Environment
6. Adan Haji Ahmed	Charcoal Cooperative Member
7. Adan Mohamed	Charcoal Dealer, Nooleys
8. Mohamed Ismail Hersi	Ministry of Interior
9. Zeinab Ibrahim	PENHA
10. Sahra Yusuf Iiman	Nagaad
11. Sulub Ismail	VetAid
12. Ibrahim Sahardid Askar	ADO
13. Ahmed Derie Elmi	CLHE
14. Mohamed Ahmed	Care
15. Sahra Haji Adan	Tisqaad

Annex 2: List of Interviewees

Togdheer Region

1. Abdi Ibrahim Waqooyi, Governor
2. Mohamed Dahir Abdi, City Councillor, Prominent Elder
3. Abdi Mohamed Iidle, Ex-Mayor, Prominent Elder
4. Abdillahi Ibrahim Hujaale, City Councillor, Social Affairs Committee Chair
5. Ahmed Mohamed Gutaale, Regional Police Commissioner
6. Ahmed Abdillahi Gaabyane, Duruqsi Mayor

Sanag Region

7. Ismail Haji Nur, Mayor of Erigavo
8. Mohamed Ahmed Abdalla, Regional Police Commissioner
9. Hassan Ibrahim Ahmed, Councillor, Prominent Elder
10. Saiid Elmi Hoorri, Prominent Elder
11. Ahmed Iidle Suleiman, Appeals Court Judge

Awdal Region

12. Mohamed Ibrahim Handulle, Prominent Elder
13. Suleiman Ali Kahie, Chief Aqil
14. Hassan Ahmed Egeh, Qolujeed Chairman

Sahil Region

15. Sahra Ali Farah, Women Org.
16. Farhan M. Haibe, Gavo

Hargeisa Region

17. Mohamed Ismail Bullale, Ministry of Livestock
18. Abdikadir Sh., Ministry of Minerals & Water Resources
19. Hussein Saleeban Farah, Cadceed Coop. Chairman
20. Yusuf Jama Guleid, Nooleys Chairman

Annex 3: APD Questionnaire for Interviewees on Alternative Energy Sources

1. Is it abundant and available locally?
2. Is it affordable? Can the majority of the population afford it for daily food preparation?
3. Is it culturally acceptable?
4. What is the preliminary capital investment required for its manufacture? Technical know-how?
5. Is it manufactured abroad and then imported ready-made?
6. Is it hygienically appropriate for household use?
7. Is it hazardous to the user?
8. Is it environmentally friendly?
9. Can sufficient infrastructure be established for the alternative product to compete with charcoal?
10. What employment opportunities does it create?
11. What would be the Rural-urban implication?
12. Can it be locally manufactured?
13. Is it accessible, and does it have the necessary infrastructure?
14. Legal framework: do we have all the relevant laws?
15. Mandate: who is ultimately responsible for control and management?
16. Implementation mechanism?

Annex 4: Bibliography

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