



## **SOCIAL FORESTRY NETWORK**



### **THE REALITY OF THE COMMONS: ANSWERING HARDIN FROM SOMALIA**

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### Introduction

Twenty years ago this year, the biologist Garrett Hardin wrote a now famous paper which has strongly influenced attempts to understand human use of the environment. He popularized the resonant phrase 'the tragedy of the commons' in arguing that though society is composed of rational individuals attempting to maximize their own best good, this rationality is individual and fundamentally at the expense of other individuals.

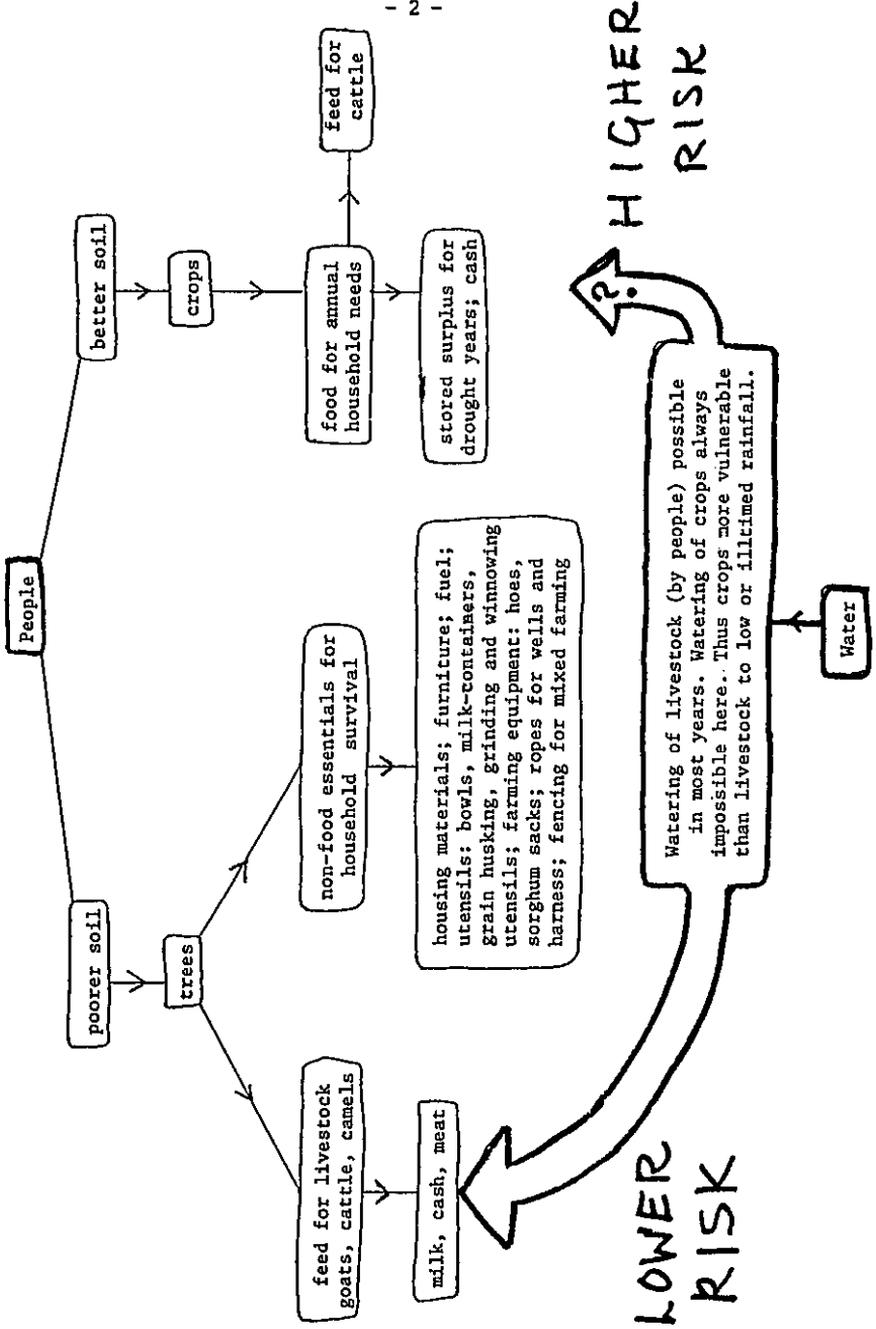
Nowadays, it is often forgotten that Hardin was prompted to write not by the misuse of common lands, but by population growth rates. In 1968, the year in which Hardin's article appeared, Ehrlich had just published his apocalyptic book, The Population Bomb, and the rapid natural increase of populations in Latin America and Asia was terrifying the world. It was the seeming mad irrationality of this increase which prompted Hardin to write with such passion and despair of the commons. Yet in fact by 1975 rates had slowed significantly in both these areas, far faster than demographers had expected. We have learned since then that rapid population increase is usually the result of declining death rates not of soaring birth rates, and that, though there is inevitably a time-lag, the pattern of falling death rates is as inevitably followed by a rational decline in birth rates.

Hardin's work on population has thus long ago been superseded. Ironically, though, the illustration he used of individual rationality leading to mass irrationality - that of the individual herder maximising his cattle on communally owned grazing at the expense of other herders - still continues to shape the thinking of some natural and social scientists concerned with best human use of natural resources, and to make them fearful of communal resource management.

It is time that the weaknesses of his argument for this branch of knowledge were also more widely understood. In fact, Hardin overlooked exchange relationships, where the best for the individual is deemed by that individual to depend upon the forbearance of others towards him in return for his towards them. Such situations most commonly occur where group membership is an important political, economic or defence asset. Groups in turn may then selfishly pursue their goals against other groups or treaty with them, as their interests dictate.

Academics who do dryland or pastoral research are familiar with the reality of the commons, and there are more published examples than there used to be of the way in which groups of individuals may successfully and jointly manage commonly owned lands over long periods of time (1). But it is still too readily assumed by field practitioners that there is and perhaps can be no successful management of lands held in common. We argue here for the opposite proposition, that the real tragedy comes when the commons are thrown open and unrestricted exploitation allowed.

SCHEMATIC VIEW OF THE DIFFERENT COMPONENTS OF THE BAY REGION ECONOMY



### The Bay Region of Southern Somalia

This paper reports on work undertaken in the Bay Region of southern Somalia between January and April 1988, during which it became clear that the assertion and denial of common property rights to bushland were at the heart of the energy issues which were the original field of study (2). It also describes the early stages of research aimed at returning common property rights to rural people who have lost them, and thereby ensuring the survival of resources which would otherwise be lost as well.

Bay Region is an area of Southern Somalia lying 300 km inland from Mogadishu. It is a region of slightly higher rainfall than the rest of Somalia (averaging 500-600mm) and consequently its best watered areas constitute Somalia's main rainfed agriculture zone.

Bay Region's inhabitants are agro-pastoralists. All households grow sorghum in years when rainfall allows it - indeed achieving creditable surpluses for storage or sale in good years - and keep some livestock. Cattle and goats are the main animals kept, and household increasingly invest in camels as the household head grows older and has more capital to invest, and more labour available in the form of older children big enough to herd camels away from home. Though the numbers of animals per household are lower in Bay than in other more fully pastoral parts of Somalia, the population density is such in this area that the region exports more livestock, as well as more sorghum, than any other region of Somalia.

As Diagram 1 indicates, Bay Region people survive by the complementarity of the low risk trees-and-livestock component of their economy practised on the region's poorer sandy soils, and high risk sorghum cropping on the clay ('bay') soils after which the region is named. The extreme unpredictability of the rains means that crop-failure years are frequent, and animals represent the capital with which sorghum can be bought if necessary. In good years sorghum can be stored in underground pits against hardship and future household commitments such as weddings or funerals, or reinvested in the purchase of livestock. Sorghum stalks are stored as emergency fodder for cattle, who are the poorest foragers in the bush of the animals kept, but the best suppliers of milk close to the farm. It cannot be too strongly stressed that animals, and the tree-browse on which they feed, constitute the essential underpinning of the whole economy of this region. Furthermore, most of what goes on economically in Bay Region is outside the cash sector, and villagers mostly have to grow, gather or make what they need.

### The Bay Region and the charcoal trade to Mogadishu

Because of the region's slightly higher rainfall, and the fact that its capital, Baidoa, is only three hours away on a tarmac road from Mogadishu, it is also the chief supplier of charcoal for the Mogadishu market, which consumes at least 300 tonnes of charcoal a day. Charcoal production and transportation is organised by a single cooperative which transferred its headquarters to Baidoa when woodland resources nearer to Mogadishu became too depleted for further exploitation.

As a result of anxieties first expressed two or three years ago about the number of trees suitable for charcoal still available in Bay region, and offtake rates, an ODA-funded forest inventory project has been underway in the region for the last two years. Towards the end of that period, complementary data began to be collected aimed at discovering the competing needs for trees of the inhabitants of Bay region themselves.

### The results of fieldwork among the people of Bay Region

We were quickly to discover that there is intense conflict over trees in the region, especially on the clay plains in the north-west where the best soils and the best rainfall of the region have concentrated both farmers and the preferred charcoal species. Local people are heavily dependent upon trees, not only for the sustenance of their animals but also for housing materials and a wide range of other products of which the most important are bark-rope, agricultural implements, domestic furnishings and utensils, and milk and water containers.

Villagers were especially worried at the steady disappearance of many of the trees of a girth and durability suitable for house centre-poles and ridge-poles: *Acacia bussei*, *Acacia senegal*, *Acacia tortilis* and *Terminalia* spp. They were also concerned to see that as the flattened 40-gallon oil-drums which used to be used in the preparing of charcoal kilns became harder to obtain, charcoal workers were beginning to substitute non-charcoal making species for them before the final earth packing. In this way important fodder species such as *Grewia* spp., *Cordia* spp., and *Commiphora* spp. were beginning to disappear into the kilns as well, along with species usually selected for the lath walls of huts. Many of these species are further used in the making of water- and milk-containers, and other domestic and farming equipment.

### Land tenure

But the problems as presented to us by the people of Bay are as much about communal land-rights as they are about particular trees growing on that land.

As has happened in many other countries, and in a closely parallel way in the Sudan, what used to be a triple land-rights classification system has been collapsed into a dual one. Among Bay Region people in the past, land used to be classified under traditional customary arrangements as private farm-land; as communal clan or village land; or as remote open access land.

In both these countries the government, in an overhasty attempt to create a modern nation-state out of a cluster of clan and tribal groupings, abolished the clan as a political entity and with it communal clan land-rights. Thereafter, communal land was lumped in with open access land as State Land, and only the sanctity of private farm-land was upheld. The right to manage communal lands was withdrawn - and thus all previous attempts at management came to an end.

Land tenure : the view of Bay Region villagers

The elders of one Bay Region village described the end of customary common property rights in the following terms:

'All the problems started after the Somali flag came. We used to look after our trees! All grazing belonged to one settlement or another and we had our own grazing reserves. Only our own people were allowed in. The British allowed boundaries between different groups, and people owned their grazing reserves and fought for them. That is why, when the republic came, it cancelled all the grazing reserves: to stop the fighting.

In the old days we would kill people who came and grazed in our area without permission. For those just passing through there was a corridor area. Someone would come and request passage rights, and they would be allowed through. But they had to keep moving, more or less. They could not settle. Everyone knew everyone else from the area by sight, so strangers were easy to identify.'

The villagers of another village in the region wrote to the government two or three years ago, (and gave us a translated copy of the letter they had written) expressing their confusion and outrage at a world without bounded communal land-rights in which complete strangers from

other parts of Somalia could now cut 'their' trees close to their village, and turn them into charcoal without let or hindrance,:

'..of course we are sure if there were no forest, there had been no animals that we could have seen....After knowing the profit and management of this woody land that is destroyed by few people carelessly...we ask the Government again 5 questions as follows:

1. If there are animals in a certain family, can anybody go and collect them without having any agreement?
2. Is there anything in this world that has no boundary? Between two nations, two provinces, two districts, two divisions, two locations, two gardens....where does the boundary of destroying the woody land end?
3. In this world there are very many projects. Every one has a starting and an end. Where does this project end?
4. They are finishing this country. To where will they migrate? And when?
5. These people who are working as if the land is not theirs - why do they have more right than the people....who were feeding on this forest?

Both these texts make it clear that lands were managed differently in the past; and the second stresses the importance of the continuity of the woodland for those who feed their animals and indirectly themselves from it, in contrast to the destructiveness of those who are working as if the land is not theirs. Even allowing for the circumstances in which these statements were made, there is no mistaking the fact that, once, the Bay Region woodlands were carved into areas owned by local people. Both documents stress the destruction of boundaries, and the second expresses puzzlement that careless strangers should have stronger rights than those whose livelihood depends on the woodland.

Today, two levels of land-law operate in the Bay Region in an unsynchronised way. Bay people still behave to one another, on the whole, as if the old unwritten customary code of law still stands - except that killing is now very rare. Reciprocal grazing occurs by request, and neighbouring villages are supposed to ask each other's permission before cutting polewood in the other's terrain. There is every incentive to keep reciprocal grazing going, because rainfall is often patchy and generosity to a neighbour this year will ensure access for one's own livestock next year.

Land tenure : the national level viewpoint

However, the people of the region are highly aware that the State takes no notice of the customary land rights they accord one another: especially as evidenced by the behaviour of the Charcoal Coop. Coop members, who are from other parts of Somalia originally, have been able to cut trees in Bay only because of the formal abolition of earlier clan-based customary land-rights.

It is thus not surprising that, in conflict with villagers, coop members and their camps of workers stress the national level, the capital, literacy and modernity and deny, by so doing, the local and the traditional. The intimidation and insults used against protesting villagers by charcoal employees are instructive:

'You are an illiterate and unimportant man, you cannot talk to us.'

'We have written permission for what we do - you have nothing.'

'If you threaten us we will have you arrested and taken to Mogadishu.'

'We can use this land whether it is yours or not: the Government says so.'

Village elders told us wrathfully of the government's failure to make the charcoal burners obey the rules laid down for them - which specify only two tree species which may be cut for charcoal, light harvesting of trees before moving elsewhere, and charcoal camp siting away from villages. Not only was the government's inability to patrol the area noted, but elders had discovered that journeys to Baidoa to complain, or attempt to bring an official back with them to inspect bad practice were rarely fruitful. It was clear that officials in Baidoa were hesitant to offend Mogadishu - and Mogadishu was reluctant to have much interruption to its charcoal supply.

Strengthening Common Property Rights - the Villagers' Solution

The villagers we interviewed had plenty of suggestions as to what was now needed.

Firstly they wanted to see restored the right to reserve portions of woodland for the use of particular groups. In some areas, individual villages wanted reserves; in others, where an important local elder commanded the loyalty of several villages, a shared reserve for the group was preferred. While there has not been time so far to plan out reserves in detail with villagers, two separate needs emerged which demanded two separate approaches to the idea of reserves.

- o Villagers said that the most acute need which such a reserve would meet would be trees for good-sized house poles. Browse was less of a problem except at the very end of the dry season, when a pole reserve near the village might offer some fodder for village-based animals. A pole reserve should be the exclusive property of the village who spent time protecting it, villagers felt.
- o As far as grazing reserves were concerned, villages did not want exclusive reserves because the scattered nature of the region's rainfall makes it politic to offer reciprocal grazing to others and thus have rights to it in return. Grazing reserves would be owned, however, and though they might be shared with other groups in times of need, there should be no access to them for charcoal burners.
- o Since the agricultural villages of the north-west Bay region clay plains are clustered on their farm-lands, and these in turn are enclosed within an outer ellipse of bushland and woodland, villagers visualize a contiguous area of bush, on the edge of farmland, from which charcoal cutters are completely banned and which they divide village by village among themselves. Charcoal burning should take place in open access land well away from settled agricultural areas and adjacent communally owned woodland. Villagers suggested 8-15 km away.

Secondly, while the driving force behind villager enthusiasm for woodland management is obviously stronger rights to defend trees for their own purposes, it was clear to them that remembered management practises for grazing would be insufficiently stringent to deal with non-reciprocal arrangements over poles. Poles were not in short supply twenty years ago, after all. Village chiefs or committees would have to manage the resources of the village in such a way that self restraint would be coupled with mechanisms for giving permission to cut poles, the monitoring of the woodland, and the protection of seedlings against browsing.

In seeking for evidence of existing management practices of possible relevance for pole reserves, we found that some chiefs already monitor the cutting of poles for sorghum pit-props, and try to discourage villagers from thoughtless hacking of good pole-trees for goat fodder. A few have planted Euphorbia or Commiphora hedgerows along roadsides or fields, and have encouraged others to do likewise.

Thirdly, several village groups proposed that they be given the legal right (i.e. the written right) to watch the charcoal burners and make sure that only trees of the right species and ages are cut. In present day Somalia, where written documents are used for land registration and charcoal permits - that is, in negotiations with the State rather than with one another over land-use - villagers are aware that tangible government documentation is required if they are to hold the charcoal burners to the rules perfectly well known to both sides. Meanwhile, bows and arrows have been used successfully by villagers in the defence of trees near their village, and there have been one or two armed confrontations.

A sheikh explained to us that it has always been customary to use a settlement's young men as local police and that he would send them to guard the woodland if the right to do so were established. Several other groups of village elders had suggestions for involving co-villagers in guarding resources, and made the point that such police would owe their loyalty to the village, and would not be bought off with a sack or two of charcoal as some government officials have been.

Fourthly, villagers were well aware that the restoration of the right to manage local resources must be cast in a new idiom. In the past, grazing areas were owned and defended in the name of clans and tribal sub-sections. Today, such groupings have no legal basis, and communal land-rights would have to be ordered on another basis. Villagers suggested that, since villages and coops own communal property - and are the only institutions in present-day Somalia that do - communal land-rights should be organised through them.

#### Common Property Rights and the State

For Bay Region people, some strengthening of the right to own and control a natural resource every bit as vital as farmland is paramount. Yet arguments on their behalf in the capital needed to be made carefully. Rural rights do not readily interest national government and may in certain circumstances be seen as a threat to the dominance of the centre. In this case, rural needs were in direct competition with Mogadishu's need for charcoal, as well.

Any hope the project team might have of making it possible for rural common property regimes in Bay to survive and thrive, and with them the environmental health of the region, had to be realistic about the pressures on natural resources from outside the region, and make some proposals for how they might be lightened. The project team were thus keen to present their findings powerfully in a form which government would find convincing.

### The national seminar

It was decided that the team's preliminary findings in Bay Region should be presented to a wide audience in Mogadishu before the project final report was written and an 'Energy Planning Study' seminar was arranged for this purpose in April 1988. Appropriate civil servants, politicians and others were invited, along with the radio and television.

The interviews with groups of villagers in north-west Bay Region villages had made it clear how overwhelming was the concern over tree losses of the region's inhabitants, and yet how depressing their certainty that they would never be able to put their case in Mogadishu since regional officials would not pass their complaints on upwards. It seemed to the team that they were morally bound to give the villagers a forum at the seminar if they could, despite the fact that places were limited.

Two actions were taken in an attempt to provide effective representation at the seminar for all the villagers interviewed.

- o Firstly, while fieldwork was still in progress, a document was prepared which summarised all the most widely expressed opinions in the village interviews. It was read back to villagers for their comment and amendment, and was then produced in both English and Somali versions and distributed at the seminar (See Annexes).
- o Secondly, permission was obtained from the regional authorities to invite three Bay Region village elders to the seminar on the grounds that since the team was proposing woodland management by villagers on the basis of what Bay inhabitants had told them, it was vital for close villagerteam collaboration from the very beginning - even before the next phase of the project had begun.

The team presented its main findings which were, in short, that charcoal offtake rates in Bay Region were unsustainable; that the tree-based economy of the local population was under extreme stress; that there would be repercussions from this on the national economy because of the importance of the region's livestock exports; but that the inhabitants of the region were eager themselves to manage the woodlands on a more sustainable basis and the project was enthusiastic about working through village management groups in the project's next phase. The eldest and most senior of the Bay Region elders also spoke to the seminar, endorsing the 'Village Opinions' document and underlining the gravity of the environmental crisis facing Bay Region.

The points from the seminar which most caught the attention of the audience, and which were broadcast and discussed on radio and television for the next three days were that there is now less than two years' supply of charcoal left in the main charcoal-producing area in Bay Region; that growth rates of charcoal-producing trees are too slow to replace those felled, so that the bushland is being destroyed;

and that serious hardship was being caused to the people of Bay Region, and their economy, by the charcoal trade. Audience participants appeared not previously to have been aware of the fact that the trees of Bay Region could support the livestock economy on a sustainable basis, or the charcoal industry for a very short time - but not both. Possible solution for Mogadishu's energy needs, though not relevant to this paper, were naturally also eagerly discussed (3).

### Conclusion

Most descriptions of common property resource regimes describe past or passing systems, either because national laws have undermined them, or because a technological change has irretrievably altered the way in which they are exploited. It is equally rare to come across attempts to restore common property rights to their original holders, though the restoration of Panchayat Protected Forests to villagers in Nepal in 1976, after twenty years of unsuccessful nationalisation of forests, has been one such.

In the area of Bay Region in which most charcoal burning is taking place, there are only two National Range Agency offices (Ministry of Livestock, Forestry and Range) neither of which has transport. The officers cannot possibly monitor the activities of charcoal camps as they are supposed to, and there is little or no prospect of more funding being made available to them to do so. Where a country is as poor as Somalia, as the villagers themselves argue (see Annexe), key natural resources will be far more cheaply and far more thoroughly protected by common property resource management than by paid government officials.

There will certainly be difficulties in giving an earlier institution a new lease of life. The most starkly obvious concerns sanctions for rule-breakers. Where, as in the past, rule-breakers are local people, pressure on them to conform and to practise self-restraint when required can be brought to bear because of the multitude of ties which bind offender and the resource group he has offended. But Bay Region villagers find it impossible to deal with charcoal burners in this way, and need recourse to a State body such as the Police or the National Range Agency which will support them when they impose sanctions on offenders.

Although there is precedent in land-registration procedures and the judiciary for village-level rights and duties to be part of the wider State system, the relationship of village-level natural resource management to State agencies will have to be given time to develop and find its most appropriate form.

Nevertheless, the strongest impression left with the individual who discusses natural resources with Bay Region inhabitants, is the durability of the concept of communal ownership of the woodlands - especially when one considers that it has been a concept in exile for the last twenty-five years. The reality of the commons is too powerful to ignore, and every effort should be made to use it for renewed natural resource management.

FOOTNOTES

(1) By far the best collection currently available is contained in the 'Proceedings of the Conference on Common Property Resource Management', edited by the panel on Common Property Resource Management, B.O.S.T.I.D., National Research Council, Washington D.C., National Academy Press, 1986.

(2) The ODA project which began in December 1985 and is due to end in July 1988 was originally conceived simply as a woodfuel inventory of the charcoal-bearing species of Bay Region. It was entitled the Energy Planning Study, and formed one component of the British Forestry Project, Somalia.

The author's fieldwork for the project took place entirely during the first four months of 1988, and was greatly facilitated by the longstanding contacts and expertise that the team and their Somali technicians had established in Bay Region over the previous two years. Especially grateful thanks are due to the author's interpreter, Ibrahim A Faarah, who had worked previously as a forestry technician with the project and whose knowledge of the area and easy relationship with Bay Region people, alone made quick useful fieldwork a possibility.

(3) One set of recommendations involved suggesting raising the price of charcoal in Mogadishu and thus forcing the population to use it more carefully. Evidence from urban surveys had suggested that the inhabitants of Mogadishu had a far higher per capita consumption rate of charcoal than did charcoal users in Nairobi and Mombasa in Kenya. Exhortation on the radio to use charcoal more carefully had had little effect and a price rise seemed the only way of generating conservative use. The other advantage of higher prices would be that charcoal cooperative members and their employees would make the same profits from smaller volumes of charcoal, and could thus be pressed hard to acquiesce to tighter controls on charcoal production in Bay Region.

Some discussion of fuel substitution in Mogadishu also took place, though the team had no especial expertise in the subject. In fact, in a meeting with the National Energy Committee held immediately after the Seminar, it became clear that there was already far more concern about Mogadishu's prodigious domestic and commercial energy demand than the team had expected. Alternative fuel sources were already under discussion and the team's findings merely confirmed fears about long-term charcoal prospects rather than having to make headway against an incredulous reception.

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REFERENCES

Ehrlich, P. The Population Bomb, London:Pan, 1968.

Hardin, Garrett. 'The Tragedy of the Commons', SCIENCE vol.162,  
pps 1243-1248 December 1968.

VILLAGERS' OPINIONS  
(English translation)

In this paper, we are presenting a summary of the majority views of the villagers in twelve villages in the agricultural area of North-West Bay Region.

1 THE IMPORTANCE OF TREES

Trees are fundamental to our life in this area:

- We depend upon animals, and the animals depend upon trees for fodder.
- We need trees as well, for poles for houses, for household utensils, for farm tools and herding equipment, and for medicine.

2 TREE LOSSES

We are now very worried about the loss of trees - above all for poles and fodder.

Both charcoal burning and the needs of towns within Bay Region for poles and firewood are causing this worry, though it is the charcoal burning which causes the greatest loss of trees.

3 FARMERS' PROBLEMS

We have had many clashes with charcoal burners. They abuse us if we try to protect our trees. They are cutting right near the village in many areas - although it is against the law - and they refuse to leave.

In one or two of the villages, we are so desperate that we wish we could move right away from the area. But there is no-where else to go, because the same problem is found everywhere else in the region.

4 HERDERS' PROBLEMS

Herders are angered by the way in which charcoal burners cut too many trees in one area, so that fodder for animals begins to be a problem. Overcutting of fodder species to help pack the kiln ( as barrels run short) is also a great worry to us.

The other problem for herders is that the prickly discarded branches from trees cut for charcoal block the familiar pathways through the bush. This makes it difficult for us to locate straying animals at night, or to reach them in time when a hyena attacks. The area has become a wilderness to us and our animals.

## 5 LACK OF CONTROL OF CHARCOAL BURNERS

Because the NRA have only two officers in the charcoal-cutting areas near us, and because neither office has transport, the government cannot control the charcoal burners. This is why they cut illegal species, cut in illegal places, and make the kilns in a more and more inefficient way as the barrels become hard to obtain.

## 6 LOCAL MANAGEMENT

For that reason, we propose a much stronger management role for rural people. In the past, we had the right and duty to protect woodland near our settlements, and that is the job we would be willing to do again. Village groups could set aside a tree-reserve, big enough for the pole needs of each village. In the agricultural areas, where there are many villages, these separate reserves would touch one another to form a solid block of woodland.

Although pole-cutting in these reserves would be limited only to villagers of the village protecting that reserve, we would allow grazing reciprocally on one another's reserves. This is because rainfall varies from place to place each year.

We are prepared to do this work, and we can do it more easily than the NRA: we are many, and we do not need transport to the area because we live there already.

But in return, we would need the support of the NRA, and some kind of legal right to the land: so that we too, like the charcoal people, had written government permits stating our rights.

Charcoal should only be made right away from the agricultural areas in thinly populated parts of Bay Region, and in other regions.

In this way our economy would be saved which produces much sorghum and exports large numbers of livestock to the rest of Somalia, and overseas. And the woodlands would also be saved for the future.

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