

African Livestock-Keeper  
in Recurrent Crisis:  
Policy Issues Arising from  
the NGO Response

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P O L I C Y   I S S U E S   A R I S I N G   F R O M   T H E   N G O   R E S P O N S E

Report prepared for ACORD

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## INTRODUCTION

ACORD and its member agencies (in particular CCFD (Comité Catholique contre la Faim et pour le Développement), GERMAN AGRO ACTION (Deutsche Welthungerhilfe), OXFAM, and NOVIB (Nederlandse Organisatie voor Internationale Ontwikkelingssamenwerking), have over the years accumulated a wide experience of working with pastoralists, agro-pastoralists and ex-pastoralists. Much of this experience has been in connection with programmes not directed specifically to pastoralists: for example regional programmes in which pastoralists are one of several local social groups, or refugee programmes for refugees of wide-ranging backgrounds. But certain issues have been raised repeatedly within the agencies in connection with different programmes in which livestock-keepers have been involved, issues relating to the changing nature of pastoralist and agropastoralist societies and economies: one example in particular is the issue of access to pasture land and land rights; and another is the transfer livestock to urban-based owners. The Consortium's Assembly felt that the time had come for a review of this experience, with a view to discussing and developing a more coordinated NGO response to the needs of African pastoralists.

It is not attempted to give a full account of all NGO programmes for pastoralists and agropastoralists; there would be too many. Rather to give examples of the different types of programmes for livestock-keepers, from veterinary programmes to early warning programmes; and to focus on certain programmes which illustrate the issues referred to above. Because the work was carried out from ACORD's London offices, the study inevitably covers ACORD's programmes in more detail than those of other NGOs within and outside the Consortium; but these latter have not been excluded from the study, which aims to review the whole range of NGO programmes for livestock-keepers.

The sources used for the first stage of the work were: project file material made available at ACORD headquarters in London; documentation about other Consortium and non-Consortium NGO programmes made available through the post or by visits to UK headquarters; the general pastoralist development literature; and discussions with Programme Officers, both from ACORD and from member agencies, and with other interested people. A meeting was held at ACORD's London offices in May 1988, when work was beginning: attending were ACORD Programme Officers, personnel from other UK based Consortium members (OXFAM, War on Want), and other interested people concerned with pastoral development. The first draft took shape as a result of discussions at this meeting.

It was felt to be very important to incorporate the views of people involved in project operations and with field experience of programmes for livestock-keepers. The draft was therefore sent out to ACORD and member agency field personnel and interested nationals for their comments; it was also discussed at meetings organised by ACORD in Bamako and in Mogadishu, and comments were minuted. All of these comments were subsequently edited into the final draft.

## 1. CHANGING PATTERNS OF LIVESTOCK-KEEPING AND ISSUES ARISING FOR NGOS

The social organisation of African pastoralists and agro-pastoralists - those who derive their livelihood or a major part of their livelihood from keeping livestock - has undergone many profound changes in recent decades. Most fundamental has been the gradual political and economic incorporation of these communities into the nation states in which they have found themselves. This has involved a weakening of traditional political control in favour of the establishment of administrative links with the lowest levels of national government; a gradual change from a subsistence to a partly commercial economy. And it has entailed fundamental changes in the ranking of groups within pastoralist communities: many pastoralist societies were traditionally very hierarchical in a caste-like way, in that the status distinctions were inherited and extremely difficult to change (for example, pre-colonial Tuareg and Maure society); although many pastoralists societies remain highly stratified, such hereditary status distinctions have gradually been tempered by new achieved status distinctions such as those resulting from formal education and government office.

Some of these changes, particularly those which have emerged as important factors in the implementation of NGO programmes for livestock-keepers in recent years, are discussed more fully below.

### 1.1 THE CONSTRAINTS OF GOVERNMENT POLICIES AND POLITICAL ACTION

A Constraints imposed by some national government policies towards pastoralists. In many cases, the thrust of national government policies for the pastoral zones of the country has been, not to protect and develop subsistence livestock-keeping, but to settle nomads and either convert them to crop farming or 'modernise' their methods of animal production so that the growing needs of the towns for meat and other animal products may be met.

Government policies in relation to their rangelands may therefore represent an important constraint on NGO activities in the livestock sector. For example, ACORD's livestock activities in the riverine zone of Gao Region of Mali are taking place in an area where the government gives a higher priority to irrigated rice cultivation than to animal production; and ACORD's settlement programmes in Sudan and in Somalia (see section 2.1.1) are operating in circumstances where neither government wants to give priority to the development of animal husbandry on and around the schemes, even though a large proportion of settlers in both schemes are or were until recently livestock-keepers.

B Increasing vulnerability of livestock-keepers to political action and insecurity in the pastoral zones. On top of this, many pastoralists live in areas remote from the centres of national administration, areas which are particularly prone to civil war and rebellion, and destabilisation by foreign powers. If the



situation is serious enough to disturb livestock movements and interrupt crop farming practices, the vulnerability of communities is dramatically increased. If the political situation is such that the work of development and relief agencies is hampered or even impossible, then the very worst can be expected. In recent years, several pastoralist communities have experienced severe disturbances, for example in N. Uganda, S. Sudan, Eritrea, Tigre, and N. Somalia. Factors such as low rainfall may have precipitated these disasters at that particular time, but in most cases the underlying political crisis has been the more important determining factor.

Such disturbances are likely to entail fundamental changes in society, sometimes temporary, but all too often permanent: for example, the uprooting of communities from the places where they have traditional land rights, and their migration to other rural areas, to towns, to other countries; the decimation of herds and the consequent changes to other occupations; the death of people especially males, resulting amongst other things in the increased incidence of female-headed households and, often, in the increasing involvement of women in the care of livestock; and so on.

Development agencies have had to face up to the fact that crises in the semi-arid zones of Africa have become recurrent, and that no development programme has so far been able to prevent the impact on local populations of a serious drought or political crisis. Development projects may suddenly have to transform themselves into relief operations, as ACORD experienced in Qala en Nahal in 1985, following the severe drought of 1984-5. Current 'early warning' initiatives (see section 2.2.7) represent an attempt to foresee needs and to be able to plan more accurately in the event of a crisis.

Agencies may have to accept that there is no end in sight to the need for some programmes which were originally set up as short-term initiatives to deal with what was thought of as a temporary problem. They are then faced with the option of having to extend their activities for an undetermined amount of time. Thus ACORD has been working with refugees in Qala en Nahal since 1981, and there is still no hope for a return to their homeland in the near future. For how long will ACORD be able continue its intervention and support there?

The constraints of working in areas of civil war are obvious. In some cases, the situation may be so bad that the NGO working there has to take out its personnel, as has happened in N. Somalia. If the political crisis becomes prolonged and without an end in sight, an NGO may seek to set up a programme to support activities, despite the constraints; such is the situation for ACORD in Eritrea, for example.

Livestock-keeping remains a major rural occupation throughout Eritrea, despite a series of drought years which have decimated the animal population, and despite the fact that the Ethiopian army regard livestock, along with civilians, as legitimate targets for their bombers (Zeremariam Fre 1987). It is estimated that about half the Eritrean population maintains its livelihood,

at least in part, through livestock (ERA 1984).

Assistance to pastoralists in Eritrea has been grouped in the wider context of emergency assistance to all. This has principally involved the establishment of food distribution centres and will ultimately include the development of agricultural settlements. Until now, therefore, work on the subject of pastoralism and livestock development has been restricted. The EPLF (Eritrean People's Liberation Front), however, acknowledges the importance of livestock-keeping, and is giving animal production a greater priority in their wider agricultural programme than before. WAR ON WANT and ERA's Veterinary Project, run through the EPLF's Livestock Subcommission, is a case in point, and an efficient vaccination programme, run through a revolving fund, has been established (see section 2.2.6).

OXFAM's Para-vet programme (Equatoria Region, Sudan) is also functioning in a war situation: it has been responding in an impressive way (see section 2.2.6 for details) to epidemics of C.B.P.P. and East Coast Fever, which were the direct result of overcrowding of cattle into restricted areas around Juba town because of insecurity. Insecurity also makes it difficult for project staff to travel within the District; and it is at times difficult to ensure the supply of vaccines to Tali Post and Terereka. Nevertheless, the programme has continued to operate, with much success, under the most difficult conditions.

## 1.2 CHANGES IN THE PASTORAL ECONOMY.

Pastoralist economies, though never completely isolated from those of neighbouring communities, with which they exchanged products, have become gradually less subsistence-oriented and more market-oriented: livestock is sold on local markets in order to raise money for taxes, for cereal foods, and for a range of other goods. Pastoralist communities have thus become more dependent on the market value of their livestock; and have become increasingly vulnerable to its deterioration, particularly in relation to the market value of cereals. A number of trends related to this have been observed in connection with NGO programmes for livestock-keepers, and are briefly mentioned below.

A Traditional exchanges between farmers and herders are breaking down. It is mentioned in the context of GERMAN AGRO ACTION's Projet Agro-Ecologie (ORD Sahel, Burkina Faso); that exchanges between nomadic herders and sedentary farmers, such as the fertilising of fields by nomadic herds in return for straw, have broken down: farmers now want the straw for their own animals, so it is cut and stored near the compound rather than left on the fields (Buritz et al 1985:49). The same trend has also been observed in connection with ACORD's Mali programme (see 1.4. below).

B The trend towards mixed farming, which entails some degree of sedentarisation. Many pastoralists have turned to crop farming on their own account: mixed farming or agropastoralism has become an

increasingly common strategy, and one which to a certain extent can minimise the vulnerability to changes in the relative market value of livestock and cereals. In ACORD's Sablaale Settlement Scheme (Sablaale District, Lower Shabelle Region, Somalia), for example, there is a trend towards mixed farming by herders and farmers alike (see section 1.4 below).

C Increasing vulnerability to drought. Droughts are no new phenomenon in the semi-arid zones of Africa; but the impact of drought is something that is growing because of the increasing vulnerability of the local people to factors beyond their control, such as changes in market prices, availability of particular commodities on local markets, changes in the availability or absence of food aid, sudden increased pressure on local natural resources due to in-migration of outsiders, and so on. In drought years, however, when pasture is scarce and when crops fail, when the price of cereals soars and that of livestock plummets, it is becoming increasingly difficult for small livestock producers to remain viable: more and more, pastoralists who lose their livestock are forced into relationships of clientship to wealthier stock owners for whom they carry out herding jobs.

D Urban drift. And pastoralists are leaving the pastoral zones, on a temporary or a permanent basis, in order to search for urban jobs; or, as a final resort, in order to converge on the centres of free distribution of rations. In many parts of Africa, there are now large conglomerations of ex-herders living in poor conditions on the peripheries of district and regional centres.

### 1.3 THE TRANSFER OF LIVESTOCK FROM SMALL TO LARGE OWNERS

The gradual political and economic incorporation of herding communities into their nation states has made it possible for outsiders who have links with members of these communities to invest in livestock. And this process is facilitated at the time of a drought-induced crisis in the pastoral zone, when it is habitual to see large numbers of livestock pass from the hands of desperate herders to entrepreneurs, often new to animal husbandry, who are quick to seize upon the opportunity of buying stock while the price is low. The livestock is then herded along with, or in the place of, livestock belonging to the pastoralists. Those outsiders interested in such investment include neighbouring sedentary farmers, particularly the wealthiest amongst them; and a variety of people based in district centres and in towns, such as traders and civil servants. Their links with the herding communities are often based on a blood or a marriage relationship, or on a political alliance.

In the early 1970's in the Sahel, such arrangements were beginning to become common, but tended to involve the more influential members of the pastoralist communities in relationships of near-reciprocity, either with wealthy local farmers from whom they secured much of their grain needs, or with local civil servants, policemen and politicians, whose goodwill could help them in their dealings with the local administration

(see, re the Twareg of central Niger, Oxby 1978:83).

A Recent droughts have speeded up the process of transfer of livestock, particularly in West Africa. Since the early 1970's, the trend has become much more widespread, and now involves in particular poor and destitute herders and ex-herders who are so desperate that they are willing to accept very unfavourable terms for keeping other people's animals, and thereby enter very unequal relationships of clientship with their new patrons. In fact it is more and more common in the pastoral zones of Africa to find herdsmen who own no animals themselves, but are caring for a herd, the entirety of which belongs to someone else. The actual arrangements vary considerably: though all have rights to the milk of the animals they care for, some receive in addition a cash wage, some receive a payment in animals, some receive clothing and odd gifts; and some get a combination of these.

Years of drought and crisis in the pastoral zone have done much to accelerate the trend: when pastoralists in large numbers come to markets desperate to sell their animals at any price in order to buy food, there have been individuals quick to seize the opportunity of acquiring a herd. After the drought, though, animal prices soar again, and it is difficult for ex-herders to buy up enough animals to make them viable independent herders again. For those who, at a time of crisis, accepted unfavourable terms for keeping someone else's livestock, it may be virtually impossible to re-acquire a viable herd, and they may become trapped in a spiral of increasing poverty (see, re nomadic Fulani in Niger, White 1984; and, also re Niger, Thébaud 1988:97).

A transfer of livestock ownership from nomadic herders to settled farmers has been noted in the context of GERMAN AGRO ACTION's Projet Agro-Ecologie (ORD Sahel, Burkina Faso).

An important trend towards absentee herd ownership has been found by ACORD in its Mali programme: "La propriété du cheptel bovin connaît actuellement un changement radical. On peut affirmer qu'à partir de 1985, les citadins de la région (commerçants, fonctionnaires) et les populations sédentaires de la vallée du fleuve se sont constitués de véritables troupeaux, profitant du fait que les éleveurs nomades voulaient coûte que coûte se débarrasser de leurs animaux. A l'heure actuelle, ces troupeaux constituent les seules 'banques de semences' significatives de la région, si bien que les éleveurs qui veulent posséder des bovins sont dans l'obligation de payer au prix fort des bêtes qu'ils ont cédées pour presque rien il y a seulement trois ans" (ACORD Dec. 1987 Programme Committee documents No.3:2; see also No.1:4 and No.2:3).

It is not made clear exactly what influence this trend has on the programme; but it can be inferred that if herdsmen are herding somebody else's animals, not their own, then their powers of decision-making over those animals is considerably reduced, if not nil. This would obviously reduce the scope of any animal husbandry programme where such paid herdsmen were the beneficiaries. It has also been reported from the Mali programme that those who are herding other people's animals have less interest in respecting the natural environment than those herding

their own animals, in that they are less concerned about avoiding overgrazed areas and allowing the pasture to regenerate.

Although much of the evidence for a transfer of ownership of livestock from subsistence producers to more commercially-oriented and often town-based managers comes from the Sahelian zone, the trend is not confined to West Africa, and some similar evidence is coming also from East Africa. For example, ACORD is proposing a new pastoralist programme in Somalia (exact location to be determined); and a preliminary study for this programme, on the recent changes in Somali pastoralism (Low 1986), pointed to a new class of livestock owners/traders which has arisen in connection with the overseas export of livestock, in particular to Saudi Arabia. These people, "urban-based but with good contacts in the rangelands" (p.5), overcome water shortages in the dry season by constructing large cement cisterns, and using water lorries. They also sell water to local pastoralists, and encourage a dependency of smallholders on them; this was particularly evident during the droughts of 1974-5 and 1984-5. They have brought about certain changes in the species of livestock held by smallholders, related to overseas demand. They have also monopolised, and even fenced off for their own use, areas of good pasture for their export animals.

#### 1.4 PROBLEMS OF ACCESS TO PASTURE LAND

A Diminishing size of community-managed rangelands and increasing competition over access to them. The traditional territorial boundaries of pastoralist communities, which in the past were defended by force if necessary, are now freely encroached upon by agricultural settlers (some of whom may take up animal husbandry themselves); by private entrepreneurs; and for State projects. All over the semi-arid zones of Africa the grazing land available to herders is thus diminishing; and pastoral economies are being squeezed, as livestock compete over increasingly scarce water and pasture resources. The increasing competition over rights to land, and the attempt to defend customary land rights against new users, have become major issues for members of pastoralist communities throughout Africa.

For example, preliminary surveys of the local agropastoralist economy and society in relation to ACORD's proposed Programme Agro-Pastoral in Kiembara, ORD Volta Noire, Burkina Faso have shown that there are serious problems of access to land. There is a gradual encroachment of crop farming into areas which previously were used for community grazing, which has two consequences: the first is the sheer lack of grazing; but another equally important result is the increasingly difficult access to the remaining pasture because of its dispersal between cultivated areas (ACORD 1987:4).

OXFAM's Erigavo Erosion Control Project (Erigavo, Somalia) has also faced problems of access to pasturelands, but in an indirect way: it started out by training local communities in erosion control techniques, but it was soon realised that the major cause of the gully erosion was the loss of vegetation through overgrazing of the rangelands higher up the hillside. This

overgrazing in turn was found to be largely caused by recent changes in land tenure: large areas of the Erigavo District public rangelands have been claimed as private lands by individual pastoralists, reducing dramatically the lands available for public grazing. This has resulted in a disruption of the nomadic seasonal grazing movements, and the concentration of more animals on smaller areas of rangeland for longer periods of the year. Furthermore there have been intense and costly conflicts between pastoralists over grazing and thoroughfare rights on privately held rangelands.

At village-level workshops and training sessions, pastoralists have expressed great dissatisfaction with this trend, and they wish to return to the former open-access system. In conjunction with the National Range Agency, OXFAM initiated the Erigavo District Working Group on Soil and Water Conservation, composed of local government representatives of all the departments concerned, as a forum in which this issue could be discussed.

It is one of the eventual objectives of OXFAM to develop a rangeland extension programme that addresses the perceived needs of the local pastoralists, and, in conjunction with the NRA, to encourage the pastoralist communities to set aside seasonal grazing reserves. The presence of large areas of private rangelands within the District is proving to be a major impediment to both of these activities.

B Land improvements may unwittingly cause an escalation in competition over access to land. An example is provided by ACORD's Mali programme, which has come up against major land tenure problems: these have posed a serious threat to some of the project components, particularly those operating along the banks of the river Niger in Gao Region. Since pre-colonial times, pastoral nomads have controlled much of the riverine areas, which they use especially during the dry season, as they provide a rich source of grazing at a time of the year when other sources away from the river are becoming scarce. As the seasonal river floods retreat, the riverine plains become covered by the fodder plant 'bourgou' (*Echinochloa Stagnina*), and the resulting pastures are known as 'bourgouttières' (Cissé 1981:16). In addition, the pastoralists are interested in the by-products of the local farmers' crop cultivation, especially the crop residues which are used as animal feed. In the dry season these pasture and fodder resources are, and always have been, of vital importance.

In the last few decades, more and more of the riverine grazing areas have been turned over to agriculture: in particular, they have been the focus of large rice cultivation schemes. In some areas the rice fields have taken up so much land that they have cut off the pastoralists' access to the river and its fodder resources, so that herders can no longer use their customary rights there. On this point, ACORD's Mali programme is proposing the development of access routes for pastoralists, 'défense des couloirs de transhumance', in the riverine areas of their Timbuktu programme.

Moreover, the former social relations between pastoralists and sedentary farmers have in many cases broken down, and the farmers

are increasingly taking to animal husbandry themselves, and are therefore interested in the pasture and fodder resources for their own use, rather than for exchange.

The official land tenure system is not always easy to apply: customary rights of use are in principle recognised; though since all land officially belongs to the state, it can be appropriated by the state for such purposes as large-scale rice cultivation, with no compensation to the pastoralists who used it previously. Moreover local farmers may encroach on the rangelands in order to cultivate rice and other crops. The land near the river which is most suitable for cultivation is usually also that which produces the best grazing. The impact of the transfer of this land to cultivation is, therefore, of major importance to the local pastoral economy. The result is that disputes over access to land have become commonplace, and typically take the form of pastoralists trying to claim customary rights to their traditional pasture and fodder resources, against local farmers' contrary claims (Nieuwkerk 1987:10).

A 1946 survey has been used until recently in order to establish which groups have customary use rights to grazing land. The land use developments since this time, however, have made it difficult to use in practice; and an update of the survey was carried out in 1987, in which land along the river in Gao Region was allocated officially to the community which was using it - either a named nomad fraction or a settled farming village. In cases of rival claims, the traditional user has priority in principle, unless the newcomer has invested in land improvements such as water control structures. In this case the land may be divided and/or the traditional user may be allocated an alternative piece of land. The legal situation has been laid down in a 'code domanial' issued in June 1988; as yet it is early days to see what effect this will have in practice.

Although the riverine areas are the most notable for land disputes, these also occur in other areas where ACORD is working, particularly in places and at times of scarcity of grazing resources: thus the Government has banned ACORD's attempts at range management (*gestion des pâturages*) in Kidal Cercle, following numerous territorial disputes between herding groups during the drought of 1984-5 (ACORD Dec. 1987 Programme Committee document No.3:4). The wells constructed as part of ACORD's programme may unwittingly have enflamed certain local rivalries over access to pasture and water: whereas in the past, wells were owned and used by the social groups which had them dug and maintained them, boreholes and wells dug as part of an official programme are open to anyone who comes to them. As a consequence the areas around them may become overgrazed, and local pastoralists may feel that their customary prior rights to grazing have not been respected.

ACORD personnel, both in the field and at headquarters, has spent much time and effort in addressing the issue of land rights (see especially Acord Sept. 1987 minutes of the Programme Committee meeting :6-7 and ACORD Dec. 1987 Programme Committee document No.2:3-4). Some progress has been made as a result of discussions, but land tenure issues still remain a problem. The

present situation is that ACORD tries to get a consensus from the local population before operations begin as to who has rights to where, and postpones or never begins to operate in an area where there are likely to be disputes over land tenure: an 'avoidance' strategy. Section 2.2.3 deals in more detail with the various components of the Mali programme which are affected by problems of land tenure.

C Competition may be further increased when settlers are brought in from other areas. An example is provided by ACORD's Sablaale Agricultural Settlement (Lower Shabelle Province, Somalia), which has also come up against problems of access to land. Indeed work on the 'semi-arid farming module', due to be carried out outside the inner irrigated settlement area, may be delayed until such issues are confronted and resolved. The creation of the settlement site in an area which was previously used for grazing has contributed to the pressure on the surrounding rangelands: because the overall amount of grazing is reduced by the extent of the irrigated area; because the presence of the settlement and its services and resources has encouraged some of the more influential people to privatise land in its vicinity; and because the population using the rangelands has increased: many of the settlers are investing in livestock which they keep in the vicinity of the settlement area; and also the new resources available in the settlement, such as water and agricultural by-products, have attracted other livestock-keepers from neighbouring areas (for further details on the project, see section 2.1.1).

A detailed survey of land tenure, grazing and water rights was carried out by ACORD in 1985/6 (Low et al 1986). Informants said that their groups had lost land to the settlers and to other people coming in from neighbouring areas to buy land, and mentioned that it was particularly grazing land which had been lost. No compensation had been received, with the exception of one group of settled farmers, who had been offered an irrigated farm prepared for them by the government. But in some cases, a payment had been made to the owner of the land in order to persuade him or her not to contest their claim during the registration process.

The survey highlights the general loss of grazing land to crop farming in the District and in particular near the settlement area, and warns that this trend threatens to undermine in time the entire local livestock economy. The problem of access of livestock to the river for watering has arisen, like in Mali; but it has been solved in Sablaale by the establishment of tracks between the fields.

There is an uncomfortable fit between the local communities' perceived customary rights to grazing land, and the official position, according to which all land which is not registered as arable land is open to all. Some land is being registered by local people as a group. This is the land for which demand and competition are high, particularly along the river and near the land reserved for irrigation. But the only possibility is for land to be registered as arable land with the Ministry of Agriculture. It is not legally possible in Somalia for



individuals or groups to own grazing land.

In some parts of Somalia, however, a semi-legal solution is being adopted by livestock-keepers, which consists in enclosing rangeland, only a small proportion of which is used for the cultivation of crops and fodder plants, the rest of which is used as private grazing land (see re Erigavo below; re the Ceel Dheer District of Somalia's Central Rangelands, Behnke 1988; and re areas around Mogadishu, Mohamed Yusuf Shiil 1988:5).

In response to the rush on farm land in Sablaale District, some pastoralists are themselves organising the clearing of their grazing land along the river for crop farming; and in response to the favourable local conditions for livestock-keeping (use of water and crop residues from the scheme), some settlers are encroaching on community land outside the scheme area with their livestock. There is thus a general move towards mixed farming or agropastoralism, both on the part of local pastoralists, and on the part of settler-farmers.

Since the 1985/6 survey, there has been a 're-registration' of land, and there have apparently been certain changes in the law so as to make it easier to claim access to land on the basis of customary rights. More information is needed, however, on the implications of these changes for the programme: in particular, for the local people who want to use their customary rights to land, and for the settlers who may want to gain access to land over and above the small area which has been lent to them by the scheme. In many ways the interests of one group of programme beneficiaries, the displaced persons, is in direct opposition to that of the other main group, the local agropastoralists, and a lot of effort will be required to reconcile the needs and rights of both.

A useful background paper on land tenure issues in Somalia was prepared for ACORD'S 1988 workshop on Pastoral Systems and Social Change held in Mogadishu (Mohamed Yusuf Shiil 1988); a lot more detail is required on the situation in Shabelle District, however, so as to target ACORD's programme to the current situation there.

ACORD's Sablaale semi-arid farming programme is at an early, and critical stage. If land tenure issues are tackled head on now with the agreement of precise guidelines, rather than later on when the issues may emerge as obstacles, hopefully the gravity of the problems which the Mali programme has faced (i.e. having to close down or avoid beginning work in areas where there is not a consensus about ownership and use of land and natural resources) will be avoided.

D What position should NGOs take on land tenure issues? As problems of land tenure become more widely experienced and known by NGOs as a result of their project experience, the question is not only what should they do about it; but also whether it is part of an NGO's proper role to take a stand on land tenure issues, or whether NGOs should just take a back-seat role in studying them.

The proceedings of a recent workshop on pastoral land tenure in East Africa set out a useful programme of action needed, including the documentation and explanation of customary land rights (in particular with regard to women), the registration of customary rights, the summarisation of national statutory laws affecting pastoral land tenure, the exploration of ways of reconciling and integrating customary and statutory tenure, the provision of legal aid to fight test cases, the supporting of legal aid camps or clinics in pastoral areas, the incorporation of legal themes into adult education and literacy programmes for pastoralists, and so on (Pastoral Committee 1988:54ff). But it remains to be answered who is going to support and carry out these tasks, and in particular whether NGOs working with livestock-keepers are prepared to contribute.

The 1985/6 survey of Sablaale District, for example, discusses the implications of the land tenure situation for the programme, and suggests that land registration documents should be checked before any operations begin outside the scheme area - checked with the local group, in Sablaale, and in Mogadishu. If the group using the land does not have secure tenure, steps should be taken to put the matter right. All users of the land in question should be consulted, including seasonal users, not just the most prominent or influential users (Low et al 1986:10ff).

And a recent consultancy report on Sablaale District planning draws attention to big changes in land tenure, which need to be monitored, in particular the interaction of the traditional system with changes brought about by the arrival of the settlers, and the privatisation of land by entrepreneurs. The report says that there is evidence of disputes and competition between groups, and that the tackling of land tenure problems should be regarded by ACORD as a top priority (Spooner 1989:24).

Such proposals have unfortunately not yet been endorsed by ACORD, and the organisation is divided between those who feel that land tenure issues should be addressed and if necessary negotiated with governments before a programme becomes operational; and those who feel that an NGO cannot take on what is a government role, but should limit itself to addressing issues of land dispute after they have arisen in connection with a programme.

## 2 A SECTOR BY SECTOR ANALYSIS OF NGO WORK WITH PASTORALISTS AND AGROPASTORALISTS

### 2.1 HELPING EX-HERDERS CHANGE PROFESSION

Whereas in the past it was assumed by many that all pastoralists would sooner or later become settled farmers, this is now fortunately no longer the case. There is a growing recognition that many regions currently used by herders are not suitable for rainfed crop farming, that alternatives such as irrigated agriculture are very costly and anyway often not successful, and therefore that animal husbandry is often the best way of exploiting them. Moreover experience shows that ex-herders, though willing to try a variety of new occupations when they have lost their animals and find themselves in a desperate economic situation, usually try to build up their herds again at the earliest opportunity. This appears to be not so much because of some innate conservatism; rather, because of the attractiveness of the economic opportunities provided by animal husbandry when compared with the available alternatives. Sometimes, herd ownership may coexist with other occupations; and sometimes the new occupation may be abandoned in order to follow the herd, as soon as prospects in the pastoral economy seem good enough.

Accordingly, professional reorientation programmes for ex-herders are increasingly being considered only in exceptional circumstances, such as when herders become destitute as a result of drought, civil war, or when they are refugees; and then only as a temporary solution until their situation improves; but no longer as a permanent solution, unless the ex-herder so chooses.

Included in this section are professional reorientation programmes for ex-herders who are refugees from another country, or who are displaced within their own country. Some are being resettled in or near their homeland; and some have moved to the nearest urban settlements. Development efforts can be divided into two categories: those involving retraining in the rural areas, principally in crop farming; and those involving retraining in the urban context.

#### 2.1.1 RETRAINING IN RURAL AREAS: HERDERS BECOME FARMERS

##### PROJECTS

MALI: Programme d'appui aux productions agricoles et à la phoeniciculture (date cultivation) en 7ème Région du Mali is part of ACORD's wider Mali programme, much of which is oriented towards animal husbandry activities. This particular component, however, represents an attempt to retrain ex-herders in various 'oasis' agricultural pursuits: construction of garden wells and gardens for date palms, fruit trees, cereals and vegetables. It arose as a response to the destitution caused by the 83-84 drought, and began work with ex-herders in 1985 (ACORD 1987c).

As the ex-herders or neo-gardeners began to recover economically from their post-drought destitution, however, many gradually lost

interest in their gardening activities, and more and more of their time was devoted to building up and caring for their decimated herds. The number of exploited gardens diminished, as many project beneficiaries left the garden sites to follow their newly built-up herds. ACORD accordingly decided to stop its support for this programme as from 1989 (ACORD 1988a:32).

SUDAN:Oala en Nahal Refugee Settlement (Gedaref District, Kassala Province) ACORD. The history of this scheme goes back to 1969, though ACORD's involvement started in 1980. It was set up to receive refugees, principally from Eritrea and Tigray. By 1984, the settlement area involved 107 000 feddans (1 feddan = 4 200m<sup>2</sup>), of which 63 900 were cultivated and 43 100 grazing land (Devitt and Tahir 1984:15). There were approximately 35 000 refugees in the settlement, plus an additional 5 000 local Sudanese. The vast majority of refugees came from livestock-keeping backgrounds (Girma Getahun 1986:75). In 1984, 58% was considered an underestimate for the proportion of settlers keeping livestock; this percentage had been increasing steadily since 1980, and is still doing so. Increases are due to natural increase, purchases, and livestock brought by new arrivals (ACORD 1989). Despite this, the programme did not include any animal husbandry activities until 1986. The main thrust of the programme was, and still is, a tractor hire scheme for subsistence (dura) and cash (sim-sim) crops; agricultural credit; an agricultural workshop; and related extension activities.

Since 1986, work on 6 hafirs to provide water for livestock has been carried out and is expected to be completed in 1989. Also since 1986, limited veterinary facilities have been available in one of the villages, Umsagata, where one veterinary consulting room/laboratory has been built. Animal disease surveys have been carried out. The training of settlers in basic veterinary practices is planned; so is a veterinary drug revolving fund to support COR's efforts in establishing veterinary services in the area; and an animal credit programme for poorer members of the community, particularly women heads of households. Monitoring of livestock numbers was carried out during 1988.

Seedlings of various tree species were produced in a nursery for the reseedling of degraded land. There have been agroforestry trials for fodder and browse production; seed collection of local grasses and legumes; trials with imported legume varieties for pasture improvement; silage and hay-making trials. There have also been animal feed trials with these different fodders; and with crop residues. ✓

Following the poor harvest of 1987, grain banks were opened; but it remains to be seen if the loans will all be repaid. There have been market surveys to study the fluctuation of animal and grain prices; and milk production and consumption surveys.

A range and pasture survey was carried out in 1986, but unfortunately the crucial aspect of range management was not covered (ACORD 1987d). Village grazing committees have been set up in order to control the use of pastures; but this has not been an ACORD initiative, and so far, ACORD has done little to

encourage or facilitate their potentially important activities.

A consultancy report on natural resource management provides useful data on land tenure and land use in and around the scheme (Flint 1988). The report concludes that there is no good evidence for overgrazing, but emphasises the growing constraints to livestock productivity as a result of deforestation and the expansion of cultivation (p.41). The author argues unconvincingly against the requests voiced by some villages for exclusive defined grazing areas, but fails to provide any other suggestions for range management.

Activities proposed by ACORD for 1989 include: small-scale milk-processing for cheese, butter and ghee-making; treatment of skins and hides for marketing; the training of certain settlers with a livestock background to assist stock owners in handling and administering veterinary drugs and vaccines; also poultry, fish, and bee-keeping activities.

SOMALIA: Sablaale Settlement Scheme (Sablaale District, Lower Shabeelle Region) ACORD. The scheme was set up in 1975 in order to receive people from central and especially from northern Somalia who were destitute as a result of the drought-induced crisis in their homelands; ACORD became involved in 1982. By 1985 there were some 8 550 displaced persons, settled in an irrigated area of some 1 200ha (Low et al 1985:26). About a quarter of the settler households are female-headed.

The ACORD programme, however, now involves the whole of Sablaale District, not just the irrigated area; and a 'semi-arid farming module' is proposed for the non-irrigated part of the District, where there are in addition some 11 708 local pastoralists and agropastoralists. The total settlement area now involves some 70sq km of land beside the Shabeelle river, and the ACORD programme is potentially to address some 30 000 people (Hassan Isaak 1988 and Hassan Isaak and Yuill 1988).

So far, the main emphasis of the programme has been on irrigated agriculture for subsistence (maize) and cash (sesame, melons) crops; small business development, and community development. Although some of the displaced persons keep stock, and the vast majority of the local people do (Low et al 1985:78), there has as yet been no livestock development; there are however proposals for a mixed farming component in part of the irrigated area (ACORD 1986:15), and for animal production and health development as part of the future 'semi-arid farming module' in the non-irrigated area.

UGANDA: Resettlement Project (Kapedo and Lolelia, Karimoja)  
OXFAM. This scheme is a ribbon development of new agricultural settlements over an arc of some 50km long and about 20km wide. 34 villages or 'settlement units' have been created since 1982. The project arose out of a relief effort in the area following a severe drought. The settlers are from the area or neighbouring areas. Though all have a livestock-keeping background, animal husbandry has until now not been part of project activities, and the keeping of livestock has been discouraged. Settlers have been encouraged to gain their livelihood by rainfed agriculture.

This project's future is now under review, as a number of problems have emerged over the years, including the following: the rainfall in the area is less reliable than expected; the soil is not as well adapted to agriculture as was thought, and there have been infestations of pests; settlers have experienced varying degrees of harvest failure; there have been severe problems with borehole maintenance, as no settlers have had any training for this, and spare parts are difficult to obtain; women have been overburdened with work, as they are doing most of the agricultural labouring including ox-ploughing, in addition to domestic work; and the continued political unrest and insecurity makes settlers vulnerable to raiding.

But perhaps the most important problem arises from the fact that these people are livestock-keepers, who are being expected to transform themselves into crop farmers overnight. Even if the land had been suitable for agriculture, it is arguable that the project still might not have been successful (Dyson-Hudson 1987).

OXFAM is now working on a new mixed farming approach for the future, with the possibility of a restocking programme. The general insecurity in the region, however, continues to give cause for much concern, especially since livestock are prime targets for raiding.

#### ISSUES

A Settlers' continued interest in livestock. All of the above schemes have come up against problems connected with the settlers' continued strong interest in livestock, even after several years' 'retraining' as crop farmers. As has been repeatedly pointed out elsewhere (see for example G. Sörbo 1977 re the Khashm el Girba Project, Eastern Sudan; and Pearson 1980 re the New Halfa Irrigation Scheme, Eastern Sudan), ex-pastoralists who for various reasons have joined crop farming schemes, tend not to sever their links with the pastoralist economy; on the contrary, they tend to use their new occupation as a way of building up their resources so that they may re-enter or retain a foothold in the pastoralist economy, or so that a member of their immediate or extended family may do so. Savings are invested in animals, which are herded either in the immediate vicinity of the scheme (especially animals in milk), or in pastures neighbouring the scheme; or they may be sent back to the settlers' homelands, to be cared for by relatives.

In QEN, many refugees originally arrived destitute and had no livestock (85% of a sample of 240 households, see Spooner 1981:124); the situation gradually changed over the years, however, with ever-increasing livestock numbers around the scheme (Devitt and Tahir 1984:11). In fact many of the settlers who had little experience of keeping livestock before their arrival followed the example set by the ex-pastoralists, and by 1984 they also were investing in small numbers of animals. This last fact in particular suggests that ex-pastoralists' continued interest in animals has less to do with their attachment to past practices, than with the benefits which they perceive animal

husbandry can bring to them in their present circumstances. These benefits include: a convenient source of protein and other nutrients, particularly for children (and this is particularly important on a scheme growing dura and sim-sim, where malnutrition has been a major problem); a means of transporting water, firewood, crops, people, etc. (donkeys and camels are used in this way); a convenient way of investing savings and storing wealth; and an efficient way of using the large amounts of crop residues on the scheme.

B Where settlers have restricted land rights, there is even more incentive to invest in livestock. Furthermore, livestock-keeping may represent to the settler an easier way of becoming an independent producer than crop cultivation, for the only option usually available on agricultural settlement schemes, is to be a tenant. It is particularly difficult for settlers to acquire land to farm in their own right in the vicinity of such schemes, since there is inevitably much opposition to this on the part of the local users; and the schemes do not allow for tenants to become land owners and independent producers on scheme land. Since it would be most tenants' ultimate aim to become independent producers, and if this seems easier to achieve through livestock ownership than through land ownership, then animal husbandry is worth a try, even to those tenant families for whom it is a new occupation.

In Sablaale, it is difficult for settlers to acquire land in the vicinity of the irrigated farming areas to farm in their own right: "it would appear from the Exploratory Survey that raising issues like registration of land will be viewed with extreme suspicion (Robinson 1987:24)". There has been a re-registration of land recently, though, and it is hoped that this will clarify the situation. But there remains the likelihood that any land registered in the name of a displaced person would represent land taken away from the local communities, with all the ensuing problems of arbitration between the needs and rights of both parties. Livestock, therefore, may be considered an alternative and easier way of becoming an independent producer, particularly since water and crop by-products are available; thus a build-up of animal numbers in the vicinity of the irrigated areas may be expected. Indeed, recent reports suggest that this is already happening.

C Conversion to agriculture may only be appropriate under circumstances of crisis, and for a limited period. In Mali, ACORD has terminated its oasis agriculture project for ex-herders, as they have gradually left their farming pursuits to return to animal husbandry. This initiative was originally intended to provide a permanent occupational reorientation for destitute herders, but experience has shown that it is unrealistic to expect this except in a few individual cases. The project has met an important temporary need in terms of post-drought rehabilitation, and may be considered a success in that it enabled people to return to their normal livelihood perhaps earlier than they would otherwise have been able.

D Best to incorporate livestock and mixed farming activities from the beginning, not to exclude them. In QEN, the syndrome of

overstocking and overgrazing around the scheme, of livestock damage to crops, of tenant families' investment of savings and labour in livestock-keeping rather than crop farming, all of this looked to some planners as if it was gradually becoming an obstacle to the smooth running of the scheme. What to do about livestock became a major issue. A livestock consultant was called in to assess the situation and make recommendations about the future. A lengthy report was produced (Devitt and Tahir 1984), with detailed suggestions for future developments. The consultant argued that livestock had become an important part of the scheme: "The economy of the scheme is now based on mixed farming; it is no longer an arable scheme where a few people keep animals (p.45)". Accordingly, a livestock development programme was proposed, and this is now gradually beginning to be put into practice.

A recent evaluation of OXFAM's Uganda Resettlement Project pointed out the need for a mixed livestock and farming approach, rather than an exclusive focus on crop farming, which has been the OXFAM approach until now. The crop farming only approach, however, has strong support from the government, which continues to express views as to the out-datedness of pastoralism and the desirability of settled agriculture for ex-pastoralist citizens. The evaluation stressed that the settlers, because of their background, possessed animal husbandry skills, which it would be a pity not to use; and that since subsistence from dryland farming alone is not possible in the area, a strategy of mixed farming or agropastoralism would be desirable, in order that animals may represent a fall-back food supply (Dyson-Hudson 1987).

E Problems of overgrazing AROUND the settlement area should be anticipated; it is not sufficient to plan only for within the settlement area. The livestock consultant for Qala en Nahal maintained that livestock development in QEN could not be considered in isolation from the development of water resources and natural fodder resources both within and in the immediate vicinity of the scheme. In fact, the provision of water for livestock was an urgent priority, and it was recommended that for every new hafir built on the scheme, one outside the scheme should also be built or renovated (Devitt and Tahir 1984:53). The larger nomadic herds should be kept off the scheme, "as they contribute relatively little to the welfare of the majority and consume a disproportionate share of the scheme's resources"; and the owners of smaller herds should be encouraged in their joint herding arrangements and in an increasingly intensive, from the point of view of land use, form of herd management. And the trend towards mixed farming with increased use of crop residues should be encouraged.

Unfortunately, these recommendations have on the whole not been carried out, in particular the central message that planning should include those areas immediately surrounding the scheme, which are bound to be profoundly influenced by what is happening inside the scheme area. The six hafirs which have been built are all inside the scheme area, none outside. Unfortunately, this can only be expected to hasten and worsen problems of overgrazing around the scheme (in fact a recent evaluation of the



environmental impact of the scheme by the Norwegian Refugee Council has drawn attention to this).

The problem remains that it may be difficult to persuade governments of the need to develop areas outside those allocated to the scheme, particularly where settlers come from different countries, and where their rights may be seen to conflict with the rights of the local people. Again, this emphasises the need for more precision about the relative land rights of settlers and local people.

In Sablaale, however, the situation seems more hopeful: the scheme area includes not only the irrigated farming area, but the whole of the surrounding District and its indigenous agro-pastoral population. Right from the beginning, the intention has been to monitor the effects of the settlement area on the district as a whole. Work on the 'semi-arid farming module' is to take place outside the settlement area and is to involve local people as well as settlers. Hopefully animal husbandry and mixed farming will be priorities in the development of rainfed farming systems.

## 2.1.2 RETRAINING OF EX-HERDERS IN TOWN

### PROJECTS

MALI: Barbe - Création d'un village d'installation agricole de familles bellahs déplacées par la sécheresse dans la région de Mopti - Mali. SUCO, OXFAM-AMERICA, and UN Association International Service.

Despite its title and its subsequent development, this project began as an urban initiative: it addressed the problem of the large numbers of Bellah pastoralists and agropastoralists who had suffered so badly during the drought of the early 70s that they had left their rural homeland and come to settle in shanty towns on land used for rubbish dumping or land subject to flooding from the rivers, at the confluence of the river Niger and the river Bani in the adjacent towns of Mopti and Sévaré. The initial project was to help clean up the rubbish dumps and the shanty towns, by teaching skills such as cart-making, mud and cement wall construction, latrine digging, and house construction; and to help the slum dwellers to secure an income by moving rubbish and carrying out building projects (SUCO 1987).

There was, however, amongst this population of displaced people, a desire to return to a rural life, and this became possible when the site of Barbe, near Mopti, became available. The first 110 families moved there in 1986, and by November 1987 there were 306 families there. The families practice rice cultivation as tenant farmers on land made available to them by the 'Opération Riz de Mopti'. They have had to dig wells, clear land for irrigation and rice cultivation as well as for food crops, build their houses, help with the establishment of services such as a school and a clinic, and so on.

It is not clear whether the project has ended its activities in the urban area; this certainly would be a pity, given the large numbers of people remaining in the shanty towns, compared with the small number of families which have been resettled. Nevertheless, Barbe remains a pioneering project, because of the emphasis it has given to a new, rapidly growing, and therefore vitally important issue: that of ex-herders in town.

SOMALIA: Pastoralist programme (location to be decided) ACORD.

In 1986 a paper was prepared for ACORD on the changing nature of Somali pastoralism, and the consequent need for a new kind of project in response to this (Low 1986). After describing many of the changes discussed in the first part of this report, he concluded that what is needed is a balanced set of interventions in the rangelands, and in the settlements of ex-pastoralists in the towns. What is needed in the urban settlements, he argued, are better services and retraining facilities; whereas the rangelands need to be made more attractive so that they can retain small-holders, by improving services, water provision and range management. He suggested that an initial point of contact be made in a regional or district centre, and that from there the personal networks of settlers be followed up so as to make

contact with pastoralists in the rangelands. The underlying assumption is that some urban settlers would be helped to return to the rural areas as herders or mixed farmers, according to their wish; whereas others would be assisted with retraining so that they could embark on an alternative urban career.

There followed a project pre-identification mission in 1987, and a detailed report (Low et al 1987), much of which is devoted to a comparison between four proposed alternative sites for the project: two districts and two cities. It is proposed that the district option be essentially a rural programme of assistance to agriculture and animal husbandry (see pp. 16-7 of executive summary), whereas the urban option might include a variety of activities such as business training, vegetable farming, and small-scale livestock schemes. But it is made clear that ACORD should choose between an urban programme and a rural programme (ibid p. 14), and that only one location would finally be selected.

Unfortunately, the ideas about a simultaneous approach in the town and in the rangelands seem to have been forgotten. If, of the four alternative sites, a district location is chosen, then this project could unfortunately be right back to a rather traditional approach to rural development for pastoralists. At least, if it has been definitely accepted that only one site can be chosen, then hopefully an urban site will be selected, in order to respond to the growing needs of urban ex-pastoralists - needs that have as yet hardly been addressed by NGOs.

Progress on the programme is awaiting certain ACORD staff appointments in Somalia, and its location has yet to be decided. ACORD is keen to build on the work it has already done, and is going to carry out, in Sablaale. Since many of the Sablaale settlers are pastoralists and ex-pastoralists from northern Somalia, it has been argued that the site for the future programme should be in the north. The current political situation, however, makes this an impracticable solution for the near future. Also, the links between Sablaale and the north are on the whole rural-rural links, and not the type of rural-urban links which were documented in the preliminary survey.

One way of getting around the problem would be to choose an urban location in central Somalia which is an important focus for agropastoralists and pastoralists in Sablaale District in terms of markets and labour demand. The new urban project would then be able to work hand in hand with the already-existing rural project, and the links between town and countryside could be fully exploited.

## ISSUES

A The need to address the growing number of ex-herders in urban squatter settlements. Some ex-herders in squatter settlements, of course, will hopefully have benefitted from general urban programmes which are not specifically aimed at ex-herders, such as ACORD's Port Sudan Small Enterprise Programme, Sudan. But given the numbers, and the desperate needs, of those destitute

ex-herders who have left the pastoral zones in recent decades throughout the semi-arid zones of Africa, in order to move to the peripheries of district and regional centres to seek their fortunes, it can readily be argued that they have been overlooked in the development planning process. The urban conglomeration which is the location for the Mali programme discussed above, for example, has a population of about 80 000 ex-pastoralists and ex-agropastoralists. There are similar large settlements of ex-herders throughout the semi-arid zone. But only one project was found in the course of carrying out this study to address this group of people.

B The special opportunities of working with herders in town. There are, however, particular opportunities to be exploited when considering the knowledge, experience and skills of this sub-group of the urban poor. Although some may choose to abandon completely their former way of life, and switch to very different occupations, others may prefer to take advantage of the skills they already possess: they may try to return to pastoralism or mixed farming at the earliest opportunity. Or they may prefer some occupation which takes advantage of the links between the urban area they live in and the rural area they come from: for example trading in livestock, or in animal products such as milk, ghee or cheese (for an analysis of milk-selling by pastoralists to urban centres in Omdurman District, Sudan, see Mohamed Salih 1985).

Such choices will depend partly on the individual's personal inclination, but more importantly on the prospects at a given time in one sector or sphere of activity in comparison with another. They may not be permanent choices, and activities may change as circumstances change. Also, different activities may be carried out simultaneously within the same household, and also by the same individual. It is to be expected that many urban-based ex-herders will thus retain some kind of a foothold in the pastoral economy.

C If urban ex-herders are resettled into rural crop farming communities, all the problems raised in section 2.2.1 are to be expected. Unfortunately, the new village at Barbe seems likely to fall into the same trap as other agricultural settlement programmes for agro-pastoralists and pastoralists: the settlers said that the skills they already had, and which they would like to be able to practice again, were crop farming, animal husbandry, and livestock commerce (SUCO 1987, see article 'Samango parle'). Since their only option at present is tenant rice farming, it can be expected that they will attempt to build up herds of their own, with all the related problems of overgrazing around the settlement. It is therefore a pity that the incorporation of livestock-rearing within the scheme could not have been addressed right from the beginning. Since the settlers were originally agro-pastoralists, Barbe could perhaps have been set up as a mixed farming village.

D Changing an ex-herder's occupation or helping him back into livestock-keeping. Changing someone's occupation, retraining them, is likely to be far more ambitious, costly and time-consuming than helping them back to their former occupation.

Moreover, unless there are very particular reasons why a change is necessary, many people feel happiest when they can continue to do what they are used to doing and what they feel best at. Refugees often have a particularly strong attachment to their former way of life and may hope and try to get back to it even after years of exile.

In the light of experience, the complete retraining of ex-herders should perhaps only be considered in certain circumstances where it is impossible to carry on in the livestock sector: for example, where refugees have arrived in an area where it is not possible to keep livestock; or where urban squatters do not have the opportunity of practising some of the livestock-related activities mentioned above. And even here, the retraining should not necessarily be seen as permanent, since some retrained ex-herders are likely to shift back into the pastoral economy as soon as circumstances permit; and many will attempt to invest their savings in livestock even while they are carrying out other occupations. Where this happens, the retraining should not be considered as a failure, but rather as an effort which was successful at helping the ex-herder pull through in a time of need, and reestablish himself in his preferred occupation.

But in all other cases, it seems sensible to consider in the first place support to the livestock sector, the subject of the following sections.

## 2.2 REINFORCING THE LIVESTOCK SECTOR WITHIN THE (AGRO)PASTORAL ECONOMY

### 2.2.1 COMMUNICATION BETWEEN DEVELOPMENT WORKERS AND LIVESTOCK KEEPERS: ENCOURAGING LIVESTOCK KEEPERS' COLLECTIVE ACTION

All pastoralist projects must involve at least to some extent communication with the beneficiaries; and many pastoralist project activities include collective action on the part of the herders. In this section, only a few of these projects will be discussed. The programmes, projects or project components which have been selected are : those which have paid particular attention to channels of communication, herder participation, or institutional development, and those for which information has been made available.

#### PROJECTS

KENYA: Group Ranches Education Programme (Narok, Kajiado and Kwale Districts) NOVIB. GREP was established in 1979, and arose out of work carried out by the Catholic Church there. The aim of the programme is to help pastoralists living in areas which have been developed as group ranches to discuss their own problems, and to enable group ranch members to become fully involved in the management of the ranches. The programme attempts to build up the confidence of the Maasai so that they are able to challenge injustices should these occur, and speak out for their rights. GREP's activities centre around workshops, which 'create awareness' amongst pastoralists. Group ranch leaders go through a four stage programme to gain 'leadership skills', and they then train group ranch members in their own areas.

The problems raised by the pastoralists include: delays in the registration of land as group ranch land; invasion of group ranch land by non-members; destruction of the environment by charcoal burners; silting of dams; the conflict between wildlife protection, and the protection of herders' rights to use local natural resources; difficulty in dealing with the Agricultural Finance Corporation over loans and loan repayments; pressure from some of the wealthier group ranch members to subdivide group ranch land in order that they can get private tenure on sections of group ranch land, thus reducing the amount of land available to other members (GREP 1988).

The main achievements are listed by GREP as follows: 1. No more harassment of the pastoralists by the anti-poaching unit of the Ministry of Tourism and Wildlife. 2. Some group ranches managed to change their committees, which were practising poor leadership. 3. Confronted and resisted successfully attempts at appropriating land by people from outside, and even from the government. 4. Managed to pressurise the registration of group representatives to pursue the government to review and amend some sections of the Lands Group Representatives Act. 5. Successfully carried out socio-economic survey of pastoralists. 6. Managed to bring together government officials to hold dialogue on the

subject of a grassroots as against a top-down approach. 7. Improvement of relations between group ranches and the personnel of the Ministry of Livestock Development and the Wildlife Conservation and Management Department. 8. Formulation of plans and active implementation by some of the group ranches of alternative sources of income for the benefit of members, e.g. sale of sand and firewood as group ranch resources, instead of leaving the same to be exploited by individuals or outsiders. 9. Controlled cutting of trees and burning of charcoal. 10. As a result of representation by the group ranches and successful intervention by the Maasai Inter-Church Committee for Rural Development with the Government Ministry concerned, illegal photography by tourists has been considerably reduced (NOVIB 1987). GREP has also participated and assisted in legal disputes concerning some of these issues, and is proposing to employ a full-time lawyer on the programme.

MALI: Appui aux actions associatives et coopératives (Timbuktu and Gao Regions) ACORD. This programme arose out of the firm belief that one of the major causes of pastoralist project failure is the lack of dialogue with herders on the subject of project design. The first step therefore was to identify the means for the participation of local herders in the setting up of the programme. This involved a lengthy process of communication with pastoralists, particularly the least privileged; with the various state structures; and with other development organisations working in the area.

As a result of this process, it was decided to work through the already-existing national network of producer cooperatives. 'Although officially "cooperatives" such structures were very often little more than village groups or nomad fractions that "cooperated" for certain basic functions, notably for the supply of agricultural inputs and the marketing of produce. They did however constitute the only rural structure in the region capable of promoting an "empowering" of populations vis-à-vis a southern based government and much anti-nomadic rhetoric' (Roche 1987:1). The type of activities proposed as a result of the 'listening process', and eventually carried out, ranged from restocking and well-digging in the pastoral areas, to seed banks and functional literacy (see relevant sections for more details).

Following certain problems with the large-scale cooperatives which will be discussed below, ACORD is embarking on a new phase in the Mali programme: activities are being concentrated in certain locations; and there is a shift from the systematic use of large cooperatives to a more flexible approach. For certain activities, smaller groups of producers may be preferred: these may be smaller cooperatives (sometimes resulting from the splitting up of larger cooperatives), fractions (the smallest administrative unit for nomads), or just informal groups of herders (ACORD 1987b:5-6).

MALI: Associations d'Éleveurs (Douentza, near Mopti, 5th Region) OXFAM AMERICA and NEAR EAST FOUNDATION. This programme, which became operational in Jan. 1985, has set up a number of activities to be carried out by herders' associations:

restocking, loans from a 'seed bank'; cereal purchase at a time of year when prices are good, for resale to members when grain is scarce and expensive; and construction of a storeroom for grain. By 1987, there were 6 associations with a total of 101 member families (i.e. between 7 to 31 families each). Much emphasis has been put upon institutional development.

CHAD: Ishtirak: Pastoral Associations in Batha (Oum Hadjer, Batha Province) OXFAM. This programme became operational in July 1987. The first aim is to set up pastoral associations, which are the focus of a range of training programmes and revolving credit schemes. It is hoped to set up about 50 associations during the 4 year duration of the project. Each association will number between 15 and 30 families. In a subsequent stage, it is envisaged that the associations will be grouped together in 'groupements' consisting of between 5 and 10 associations; and all the 'groupements' in the area of Oum Hadjer will be brought together in a 'unité socio-pastorale'.

By May 1988, 8 associations had been set up in three locations, numbering a total of 183 families. Two types of activities had begun: the training of two animal health auxiliaries per association (see section 2.2.6); and a programme of 'ré-élevage' whereby animals are bought by the association from the members, for them to keep in their herds and eventually sell on the local market within a period of 12 months. The aim of this scheme is to encourage herders to coordinate and rationalise their livestock marketing practices. Two further activities were being initiated by the associations: a cereal bank ('stock alimentaire de soudure'); and a growing out herd ('troupeau d'investissement') of male animals to fatten and resell at a profit (OXFAM Chad 1988).

## ISSUES

A The importance of communication with herders so that development initiatives can be related to felt needs. Fruitful communication with herders, and especially the setting up of herders' groups, is the key to the success of many types of intervention, particularly if it is intended to produce lasting results (Maliki 1988). It can however be a time-consuming business, which requires detailed local knowledge on the part of project personnel, and may only reach small numbers of people. It is of course easier to introduce changes in animal husbandry which can have an immediate and tangible benefit, such as the provision and use of certain veterinary drugs, than those designed to have more long-term results, such as the changing of herders' marketing strategies; but it is precisely in the latter area of intervention that good communication with livestock-keepers is so important.

An example of communication with herders not being given the priority it deserves, with inevitable negative consequences, is provided by German Agro Action's Projet Agro-Ecologie (ORD Sahel, Burkina Faso), which is described in more detail in section 2.2.4. The project was critical of local animal husbandry practices, and attempted to change them; resistance from



livestock-keepers, however, was met. The tone of project documents, however, suggests that the project was over-critical of present livestock-keeping practices, and possibly did not understand herders' survival strategies well enough. The following is an example of this over-critical tone: 'L'élevage actuel n'est plus productif ni écologiquement justifiable... En gardant cette forme d'élevage, on accélère la destruction de l'environnement et l'appauvrissement de la population' (Buritz et al 1985:48).

An evaluation of the project was carried out in 1984. It stressed the difficulties involved in trying to change the local farmers' animal husbandry practices. Amongst other things, it was recommended that a specialist in animal husbandry be recruited, in order to help the volunteer already working on this; and that sociological surveys be carried out within the herding communities, in order to facilitate the work (Koné et al 1984:22).

In 1987, an application for the extension of funding shows that the project objectives had been narrowed down so as to concentrate on social forestry and agroforestry, and that the proposals by the evaluation on animal husbandry had not been taken up. Manure demonstrations had been retained, but hay demonstrations have been dropped, as well as any attempt to approach livestock-keepers about their animal husbandry practices.

B Difficulty of trying to set up organisations before a plan of proposed activities has been established. It is particularly difficult to engage in dialogue with herders and to set up groups without being able to give clear indications from the outset about likely future activities of groups and expected advantages to project beneficiaries. The balance between 'responding to people's needs' and proposing a certain type of initiative, is therefore a fine one.

In some cases where it is problematical to draw up project proposals in such a way that they relate to herders' felt needs, it may be expedient to start working as soon as possible on some activity appreciated by herders, even if it is not seen as an important one by project personnel; this activity can then be the reason for returning to the camp, talking to herders, doing some more detailed research, and so on.

C Advantages and difficulties of working with herders' groups rather than directly with individual herders. Supporting collective action rather than individual initiatives is an important way of enabling NGO programmes to reach a wider audience, and for the programmes hopefully to have a longer life after the end of direct support. It makes it less likely that the programme will end up bolstering the interests of a small minority; and, in the case of programme activities which appear threatening to local authorities, it may help to protect individuals against retribution.

To take a more specific example, one of the advantages of distributing credit to producers via a group rather than directly

to individuals is that ideally the members of the group would put pressure on each other to make the repayments on time, in order to avoid sanctions which would affect all members. But there may be problems in encouraging producers to accept such responsibilities. For example, in Douentza, Mali, difficulty was experienced in getting the associations to manage the community-based credit schemes. 'In reality, the loans have been given on an individual basis, not on a community basis' (Maliki 1987).

Moreover, there may be difficulties when collective action becomes so well organised that it may present a threat to local or national authorities. For example, GREP (Kenya) has come into conflict with authority, in particular over their continuing struggle, with the help of the Public Law Institute, to establish a group ranch union (OXFAM Kenya 1987).

It is also arguable, especially in relation to certain communities, that herders prefer to be approached as individuals rather than as members of a group. This is the line taken for example by Tassaght, the small Malian NGO working around In Tillitt, Gao Region, and which is trying to avoid some of the problems that have been encountered in connection with the large-scale cooperatives (see below). On the other hand, it could equally be argued that the interests of the less influential may not be looked after so well given such an approach.

D Some advantages and disadvantages of working through already-existing, large-scale, nationally-regulated institutions. ACORD's Mali programme chose to work through an already-existing structure of producer cooperatives, some of which were huge (1 000 or even up to 3 000 member families). This had many advantages, in that time did not have to be spent on establishing alternative institutional channels, there was a ready link with the various local government services, and large numbers of people over a wide area could be reached without too long a delay. This approach, however, has not been without its problems: for example, the training needs of cooperative members and cooperative officials in what was expected of them far outweighed the practical possibilities of meeting them, and the accounting procedures in particular were neither adequately designed nor carried out. The programme has been an expensive one in relation to other NGO programmes, and there were allegations of financial mismanagement, according to which certain wealthier sections of the local population were alleged to have benefitted unduly from the programme.

Also, ACORD's task has been made considerably more difficult on account of the weakness of government services in these two remote regions of the country, particularly at the level of the link between the cooperatives and the regional coordinating bodies. In fact, rather than providing support to the cooperative movement, as was originally intended, ACORD has found itself having to provide the link between the population and the State services in some areas.

E Some advantages and disadvantages of working through smaller groups created or strengthened in response to project needs. This approach has the drawback that it may appear to rival government initiatives rather than to bolster them; it may be desirable, however, as a way of mobilising community initiative at the grassroots level. For certain activities can be carried out much more successfully in groups where numbers are low enough for every member to know the other members and keep abreast of their activities, and for the opinion of the majority to have a strong role in influencing the behaviour of individuals members. This is the philosophy behind the creation of pastoral associations or herders' groups. The Ishtirak associations in Chad, for example, number between 15 and 30 families each. The kind of activities which are possible under these circumstances obviously differ radically from those possible in the context of large organisations such as the Malian cooperatives, and help to explain the success of the pastoral association approach. We shall see in the restocking section, for example, that small pastoral associations have been more successful in retrieving loans from herders than have the large cooperatives. Success for the pastoral associations approach, however, is inevitably on a small scale in terms of the numbers of people reached.

In recognition of this and in response to problems experienced with the large-scale cooperatives, ACORD is embarking on a new phase in the Mali programme: there is a shift from the systematic use of large cooperatives to a more flexible approach. For certain activities, smaller groups of producers may be preferred: these may be smaller cooperatives, fractions, or just informal groups of herders.

F Problems of selection of members of herders' groups. Setting up herders' groups and recruiting members are activities which inevitably vary considerably from country to country, according to the government's policy and in particular the way in which this affects the rural areas and the livestock-keepers inhabiting them, and according to the government structures which are already in place. In many countries, however, there will be a choice to be made between setting up groups which coincide with ethnic (i.e. linguistic and cultural), social class (i.e. near-viable herders or the very poorest ex-herders), or administrative boundaries (i.e. within which people of diverse ethnic backgrounds and classes live together). These were issues for the Niger Range and Livestock Project, which though supported by USAID and without NGO involvement, nevertheless presented many points of similarity (Swift and Maliki 1984 and Aronson 1985).

NGO strategy leads them to targeting the poorest social classes, and they are often attracted by the cohesion of a single-ethnic group; whereas the government may place priority on local multi-ethnic groups, without particular emphasis on the social class of members. ACORD has recently renewed its efforts to target the poorest in its Mali programme, since it became apparent that some of the activities which had been carried out by the cooperatives and which ACORD had been supporting had been unduly benefitting some of the wealthier members of the local population.

There are likely to be even more subtle divisions within the community, and a recurrent problem in the setting up of herders' groups is how to include members of potentially conflicting interest groups, for example original settlers versus incoming groups; young household heads versus older ones; female-headed households versus male-headed ones, and so on. And, once groups have been set up, how to deal with any conflicts of interest which may occur. It is important to be aware of such divisions within the community, and to attempt not to exclude potential members on such grounds, unless there are strong arguments for doing so.

If it proves impossible for such different categories of people to work together, then the creation of separate groups should be considered: groups for older herders; for younger ones; for women herders and for men, and so on.

G The danger of too great a focus on household heads and neglect of household dependents. Development approaches via individual households, via pastoral associations and via cooperatives are all subject to this bias, which may affect unmarried, divorced or widowed producers of both sexes and from a wide age range. Such household members may play important roles in animal husbandry, which may be overlooked and in the long run eroded by project activities which consistently focus on the household head. Because of cultural assumptions (by donors and planners as well as by members of the recipient community), women are more likely to be overlooked in this way than men (see next section).

### 2.2.2. THE INVOLVEMENT OF PASTORALIST AND AGROPASTORALIST WOMEN IN LIVESTOCK PROGRAMMES

There is plenty of rhetoric within NGOs about the need to involve women in all their programmes, at every level of decision-making, and at every stage in the process of programme design and implementation. And some NGOs specifically mention (agro)pastoralist women in this respect. Despite the rhetoric, the impact so far in terms of carrying out interventions is meagre: if (agro)pastoralist women are involved at all, it is usually not in relation to animal production activities, but in relation to other activities, such as primary health care, literacy and handicrafts. For example, an otherwise excellent consultant's report to OXFAM on the proposed involvement of agropastoral women in their Affolé Project, Mauritania, proposes project components for women, not in livestock-related production activities, but in literacy, human health, improved stoves, and so on - even though it is clear from the same document that women play an important role in animal husbandry (OXFAM Mauritania 1988:24-27).

The main exception to this is dairy projects: in Western eyes, milking and the processing of milk products is an acceptable, even traditional occupation for women (but the sexual division of labour varies considerably from society to society, and it is ironic that amongst the Twareg of Central Niger, for example, milking is seen as a man's job). This attitude on the part of donors and planners is being reflected in a few African NGO programmes for (agro)pastoralists. For example, ACORD's Mali programme has involved some women in the Unité Laitière Coopérative de Tin Hama. On the whole, however, such projects involve women as workers rather than decision-makers, and the latter are nearly always men.

If the impact of the rhetoric on the type of projects which are being implemented is meagre, the same cannot be said about data collection in connection with NGO programmes. A number of NGO programmes are currently attempting to fill their information gap on (agro)pastoralist women by commissioning special studies, with a view to using the findings in the planning of a further phase of programme activities: MALI: ACORD programme (ACORD 1987); SUDAN: ACORD Red Sea Hills Programme (McEwan 1988); KENYA: OXFAM and ITDG Turkana Waterharvesting Project (Watson 1988); and MAURITANIA: OXFAM Affolé programme (OXFAM Mauritania 1988).

In addition, OXFAM's Gender and Development Unit (GADU) has issued several short articles by OXFAM staff on (agro)pastoralist women in a number of the countries in which OXFAM operates: Erigavo, Somalia (Sulekha Ibrahim 1987a and 1987b); Central Somalia (Graham 1988); Turkana, Kenya (Watson 1987 and 1989); and Eritrea (Burgess 1987). Also, ACORD organised a workshop on Pastoral Systems and Social Change in Mogadishu in October 1988 at which two relevant papers were presented: one on the situation of ex-herder women in settled areas of Somalia (Fouzia Mohamed Musse 1988); and the other on women's role in the Somali pastoral economy and related development issues (Amina H. Adan 1988).

There is thus increasing evidence that women play an important role in animal production: not only in dairying; but also in the marketing of dairy products (see, in relation to agropastoralists in Nigeria, Water-Bayer 1985); and in a whole range of animal husbandry activities, including the herding and watering of livestock, and the caring of sick and young animals (Oxby 1983). In agropastoral societies, women may be performing duties related to animal production, in addition to much of the agricultural work. Moreover, the by-products from their agricultural work may provide valuable nutritional supplements for the household animals.

It is not intended to imply that we have sufficient information on such issues; merely that this is one gap which is beginning to be filled. The situation with regard to involving women in the subsequent stages of project planning and implementation, however, is far more worrying. One explanation is the inevitable time-lag between the data collection stage and the planning and implementation stages, and one can only hope that the next generation of livestock projects will reflect more closely, and build upon, the division of labour already existing in these societies.

Another reason is the cultural constraints faced by many individual donors and planners: holding the most open-minded and radical views on other subjects does not seem to prevent some persons from having highly unrealistic and stereotyped ideas on what women's role in society is and should be; and from reacting in a deeply conservative and negative way when it comes to absorbing and acting on the results of recent research about women's roles in agriculture and animal husbandry, proposing and implementing improvements to women's lives, or even merely counteracting the unwanted impact on women of recent changes in society.

One way to combat this is to create or strengthen special units (e.g. OXFAM's Gender and Development Unit) or special posts (e.g. ACORD's Women in Development Officer) at the NGO headquarters; and to ensure that the organisation gives them wide support in getting the results of research on women's roles in agricultural production translated into project activities for women. This of course means encouraging such staff to comment on projects which do not have a special women's component, not just on those which do; for it is precisely the former where gender issues may have been overlooked.

Following are descriptions of two rare NGO projects which have attempted to involve women in animal production activities (apart from providing labour in dairying projects). Both are restocking projects (for further project details see the chapter on restocking\*).

## PROJECTS

KENYA: Restocking Projects (Wajir, Isiolo, Turkana and Samburu Districts) OXFAM. In Wajir, the restocked families were all headed by women: either widows or women whose husbands could not

support them. In Isiolo, 8 of the 36 beneficiaries were women heads of household. In addition, there was a stipulation that each married man receiving stock would brand 10 for his wife or wives, who would retain their share in the event of divorce; this, however, was not enforced by project staff. In Turkana District, 14 out of 50 beneficiaries were women; and in Samburu District, 17 out of 53 were women (10 of these were actually Turkana women, but living in Samburu District). In other words, about a quarter of beneficiaries were women in Isiolo and Turkana, and about a third in Samburu.

Although people said how well the restocked women were doing, in fact the flock performance figures do not show any statistically valid difference between the restocked men and the restocked women. The projects evaluator explains this favourable attitude to women's performance as surprise that women are performing well at all. She concludes that women do represent a special case for restocking on the grounds that many women are in a more vulnerable social and economic position than men, particularly women who find themselves without a husband for a variety of reasons (Fry 1988:11, 45ff).

MALI: Programme d'appui aux actions associatives et coopératives (Timbuktu and Gao Regions) ACORD. The latest phase of this programme is targeting some of their restocking activities to women: in Gourma Rharous Cercle, Timbuktu Region, 30 of the 85 families restocked by September 1988 were female-headed. In Gao Region, there are separate restocking initiatives for men and for women: women beneficiaries are members of already-existing women's groups in Menaka Cercle and in Bourem Cercle. So far two women's groups in each district have been allocated smallstock, together with a fund to contribute towards animal health and herding costs (ACORD 1988a and c). Restocking is carried out in these projects in a rather different way from most other restocking projects, since the animals remain in a collective herd until they are fully repaid, rather than being transferred to the beneficiary's herd at the time the loan is agreed.

ACORD has also taken the important step of recruiting a local coordinator of all the project components affecting women in both Regions where the programme is operating.

## ISSUES

A The continuing need for current data on the role of women in animal husbandry in specific societies/regions. When planning interventions in (agro)pastoral societies, it is of vital importance to know about the local division of labour: firstly, in order to target programmes to the people who are used to doing the job. And secondly, in order to gauge the impact of a programme on all members of the community, not just the participants: specifically, are some responsibilities in animal husbandry being taken away from women as a result of project activities directed towards men? We are starting to get some of this data, but the need is still great.

B The increasingly common occurrence of female-headed households. A distinction needs to be made between women who are dependents in households (e.g. as wives, daughters, mothers, aunts etc.) and women who are heads of households. They are likely to have different roles in animal husbandry, and to need different types of support from NGOs. Female-headed households are becoming increasingly common, and especially so in some of the deprived communities in which NGOs find themselves working: men may be absent for long periods, or permanently, when they take up paid employment in the towns or when they are involved in fighting civil wars.

Refugee camps are notorious for the proportion of female-headed households: husbands and fathers may be away tending to livestock, on paid labour elsewhere, fighting, or dead. In Sablaale Settlement Scheme, Sablaale District, Somalia, for example, 25% of households are female-headed. In such circumstances, women may be taking on lots of extra responsibilities in animal husbandry, and this should be taken into account when planning livestock programmes.

The Water-harvesting project, Turkana District, Kenya (OXFAM and ITDG) aimed to improve local techniques of rainfed cultivation through the construction of earthworks with draught animals (see section 2.2.3). Initially, the project worked through men only, but after realising that women were in a majority in the food-for-work groups from which participants were recruited, the balance was redressed: by 1987, the majority of those selected for training in water-harvesting were women; the work of women was no longer limited to earth-moving, but included also surveying and construction control; and a quarter of the project staff were women (Cullis 1987:6).

C The need to involve (agro) pastoral women in productive activities related to livestock-keeping. It makes sense to focus project activities for women around the more productive activities in which they are already involved - i.e. in a livestock-keeping community, animal husbandry activities. This should apply whether women are taking major herd management decisions as female heads of households, or helping with subsidiary tasks such as the care of young or sick animals. Supporting their contribution to animal husbandry in many cases will do more to revive the local economy than teaching new skills such as embroidery or even horticulture.

Furthermore, it is often inappropriate to direct such activities as literacy, human health and hygiene, and family planning, to women exclusively: men also may be involved in taking decisions about such subjects and therefore the activities should in many cases be addressed to men as well. All too often such activities are automatically be seen as the obvious means for NGOs to support women, whilst more productive activities are reserved for work with men. The time has come for a change, in response to the actual roles of men and women.

D The need to involve women in decision-making roles relating to animal husbandry, not just as labour. When introducing new technology in animal husbandry, for example in animal health or



in dairy processing, it is important to teach women as well as men, so that women do not end up being excluded from such activities, or providing the labour while the men take decision-making roles, but are also where appropriate involved in managerial work.

E Beware of the phrase 'cultural constraints' as an excuse for not directing project activities towards women. One should ask what specifically are the cultural constraints in the community in question, and at the very least try to tackle them. One should also remember that many African societies are undergoing profound changes at the moment, including cultural changes, and it cannot therefore be excluded that some attitudes in relation to women's roles may also be changing. It is important to know about any such changes. One should also ask who precisely feels these constraints, in order to make an appropriate response: is it all of the community, or is it particular individuals? could it be some of the project personnel?

Depending on what exactly the problem is, and who feels it, different measures may be adopted: would special women's projects be more acceptable than trying to involve women side by side with men? Would recruiting female project staff help? Would clearer messages to men about proposed activities with women help? Would a concentration on what are locally considered to be subsidiary animal husbandry activities rather than major herd management activities make a women's livestock programme less threatening? Or a concentration on smallstock rather than large stock? The programme should be flexible enough to adapt to the local situation in such ways.

F Already functioning women's groups may be used as an institutional channel for project activities with women. This is the approach that has been taken recently by ACORD in their Mali programme, so far successfully. It is also a possibility for ACORD's Sablaale Settlement Scheme for agropastoralists in Sablaale District, Somalia: surveys have pinpointed two types of group which may be of relevance for future programme design: labour groups for agricultural operations (Goob Soor), and savings groups to pool money (Shalango) (Spooner 1989:26 and El Bushra 1986).

G Traditional women's livestock inheritance mechanisms may be used as a model for stock loans to women. In many livestock-keeping communities, women may hold stock in their own names, and pass the progeny down to their children. Some of these forms of ownership and inheritance have been eroded in the past few decades, as a result of the emphasis put on 'Western', male-focused patterns. Even if these female-focused institutions are no longer commonly practised, members of the community are likely to remember them. The Tuareg are familiar with such a form of matrilineal inheritance of livestock, which was widespread until recently, and is still practised to a limited extent in some communities to this day. It is known by different names in different Tuareg communities; one name is akh-idderan or 'living milk' (Oxby 1987). In the area where ACORD is operating in Mali, this same institution is known as ebatekh (Halatine 1989 pers. comm.); ACORD is considering this inheritance mechanism with a

view to using it as a model for their women's restocking programme (Roche 1989).

### 2.2.3 DEVELOPING NATURAL RESOURCES

In reviewing projects which fall into this category, different aspects have been taken into account. The obvious place to begin is with a technical evaluation of the given improvement. But this is not as straightforward as it seems: apparently successful projects often have not been operational for long enough to be able to make a satisfactory technical evaluation; in some cases, as with tree-planting, a decade or more would be the necessary time lapse after the project start before a proper evaluation could be made - and this is likely to be after the end of the project, when there are no longer the necessary facilities for such an evaluation. So there is often a lack of adequate historical data for a proper technical evaluation.

Also, the scope of a technical evaluation is not always wide enough: a well, for instance, may be perfectly constructed in technical terms; but its impact on the ecological balance of the area in which it is constructed may be disastrous. For example the construction of 6 hafirs within Qala-en-Nahal settlement area, though perfectly accomplished, may have increased the rate of overgrazing just outside the scheme. But it may be difficult to obtain the necessary data for a broad evaluation of a given development in this sense.

Finally, it is clear that much of the success of programmes to develop natural resources depends on the way the improved resources are used and managed. In some instances, no provisions have been made for this, so that what looks at first like a successful project may ultimately fail because of the lack of provisions concerning the handing over of management from project personnel to users in the community. In other cases, there have been repeated attempts at introducing community management, but without finding a successful formula so far. Such is the case with ACORD's Mali programme, where there have been regular attempts since 1976 to introduce 'range management' (gestion des pâturages) - namely, control of the use of improved pastures by members of the community. Nevertheless, there are important lessons to be learned from past mistakes, particularly when they concern such a delicate yet crucial issue.

The problems involved in evaluating natural resource management projects are further discussed in Skinner (1989). In the following account, it has been attempted to evaluate the projects in the broadest way - particularly with respect to management aspects. But lack of data inevitably leads to some gaps and question marks.

#### PROJECTS

KENYA: Turkana browse and fodder project (OXFAM). Fodder tree (acacia and others) plantation trials. Five trial sites were set up in early 1985 in different ecozones within Turkana District, ranging from 150mm to 400mm annual rainfall. The sites were 4ha fenced plots where 20 species (10 exotic and 10 indigenous) had been planted using four different treatments: micro-catchment 5m

by 5m; micro-catchment 10m by 10m; pits; and a trial within a spate water-harvesting scheme. The objective of the trials was to select promising browse species which could survive without watering. Project activities included forest management courses for chiefs, councillors and extension agents (Khan 1987).

By Jan. 1987 five indigenous and five exotic species were seen to be the most promising, but it was still too early to make a definite judgement (Voigt 1987).

KENYA: Turkana waterharvesting project (OXFAM and ITPG).

Waterharvesting for sorghum and fodder cultivation, with animal draught. The project became operational in Dec 1984 in negotiation with the EEC Turkana Rehabilitation Project, which facilitates food-for-work distributions to project beneficiaries. Between then and Feb 1987, 52 gardens were constructed on three sites near Lokitaung, Turkana District; the average garden size was 0.6ha. The main emphasis was on sorghum production, and it was hoped to improve on the traditional Turkana techniques of sorghum cultivation; in addition, the project was to introduce fodder production. These improvements were to be achieved by the construction of earthen bunds to retain flood water; by the surveying and levelling of gardens to ensure even flooding; and by the construction of stone-lined spill-ways to the next garden below. The project carried out trials with draught animals (30 donkeys and 12 oxen), using a range of equipment for soil-loosening and earth-moving. Local craftsmen were trained in harness and equipment manufacture, using locally available materials.

Beneficiaries were carefully selected after a consultation process between the extension worker and an informal network of local elders: the applicant normally had at least 15 female goats; was able to organise a workforce; and most importantly could prove specific rights over the land to be developed (e.g. a traditional garden; ancestral burial grounds; usual wet season grazing grounds; or long-standing grazing rights). Such criteria ensured that the project was for marginal pastoralists, rather than for destitute people.

Although the project initially worked through men only, it has been attempting to redress the balance after the realisation that women were in a majority in the food-for-work groups. By 1987, the majority of those selected for training in water-harvesting were women; the work of women was no longer limited to earth-moving, but included also surveying and construction control; and a quarter of the project staff were women.

It was too early in 1987 to make a proper evaluation of the technical achievements of the project, since rainfall patterns in 1985 and 1986 were particularly unfavourable, and there were too few 'run-off events' to give much indication (Cullis 1987 and Martin and Gibbon 1987).

MALI: Extension of Sobo pastures; and Youvarou pastureland regeneration (both Central Mali) OXFAM-AMERICA and VSF. Schemes to speed up renewal of the local 'bourgou' fodder plant by planting shoots grown from seeds on sites by the river Niger.

Accompanying activities: cutting and storage of bourgou hay; vaccination of animals. Plans for promoting range management of regenerated pastures included a proposed workshop in November 1988 as a first step in dealing with the problem of competing users of the new pastures. In addition, there were long term plans for the replanting of communal lands with a minimum of external assistance (OXFAM US 1987).

MALI: Programme d'appui aux actions associatives et coopératives en Sixième et Septième Régions du Mali, ACORD. Includes:

1) Construction, maintenance and repair of wells and boreholes in the pastoral zone: during the 1980-1988 programme, 46 pastoral wells were constructed in the Districts of Kidal and Menaka, Gao Region (ACORD 1988b:6). In addition, during 1988 a further two were completed in Menaka District, and four more had been started: two in Menaka and two in Kidal. The Kidal wells were officially handed over to their management committees in Jan/Feb 1989; this will also happen in due course in Menaka, but as many have been damaged by torrential rains, they will have to be repaired first (ACORD 1988a:20-22).

Where the water table is more than about 30m deep, it is usually decided not to proceed with constructing a well, but 5 of the 36 reconnaissance boreholes have been subsequently equipped with a hand pump for use by the community (Reyni s 1987:22). By the end of 1988, the end of the programme, 20 hand pumps had been installed in Kidal, Menaka and Bourem Districts. The community pays an annual repair and maintenance charge to the programme, which will continue to maintain these hand pumps until they also are handed over to their management committees (via a cooperative for maintenance and repair).

Accompanying activities included training sessions for well-diggers. The first session in 1986 was followed by a second in 1988; one outcome is a pamphlet with diagrams on the construction of wells and work conditions.

2) Fodder (bourgou) production: this component started in 1987; by 1989, 35 sites along the river Niger valley in Timbuktu Region were involved. This represents a total of 457ha, and concerns members of 20 villages and 15 'nomadic groups'. There are 26 nurseries for the production of bourgou seedlings; 6 of these are 'motorised' in that the water used is pumped mechanically from the river bed; the remaining 20 are hand-watered using mobile pumps. The motorised nurseries provide seedlings at low cost to supplement those produced in the other nurseries.

There are detailed plans for range management: plans to cut and store hay for use in the dry season; to collect seeds to sow the following year; to control the livestock for parasites before entering the new pasture sites; to encourage respect for a calendar of entrances and exits from the pastures, and for the carrying capacity of the pastures; and for a rotation between the new pasture sites and pastures on the dunes. The management of the sites in these ways, however, has met with problems: management committees have been set up, but they have not worked satisfactorily as yet. Renewed training efforts are envisaged

(ACORD 1988c:12-13). One of the problems is that it has been difficult to exclude other people who have used the land in the past; this will be discussed further below.

3) Wild grain (fonio sauvage / *Panicum turgidum*) production: there are plans for the re-sowing of wild grain in certain plains in Gao Region where it has been collected traditionally, but where supplies have been depleted. The plant has been studied and surveyed (ACORD 1988b:10 and 1988a:33); and there has been one season of successful sowing at Tin Hama.

In 1987-8, wild grain collected by local herders was bought by the cooperatives in the context of their 'programme approvisionnement céréaliier', and sold back to the local community a few months later when the price of grain had escalated.

4) Pasture/fodder plant surveys: regular samples of different species were taken during the different seasons of 1988, on several sites in Kidal and Menaka Districts, Gao Region, in the proximity of Project developments such as wells and dairy production units. The vernacular and scientific names have been noted; the nutritional value of the plants has been measured, and the use made of pasture on the sites by pastoralists' livestock has been studied (ACORD 1988a:33-34).

## ISSUES

A Conflicting labour demands. Many of the proposed improvements of natural resources, such as water-harvesting and fodder improvement, rely on a strong labour commitment by beneficiaries during the initial construction period and thereafter at crucial times of the agricultural calendar. The work involved in improving the land may present demands which come into conflict with the already existing labour commitments of the beneficiaries, particularly at times of year when there are already especially heavy labour demands such as at harvest-time, or during a drought or other crisis, when family members may be constrained to go in different directions in search of food. It is easier to plan project activities around regular seasonal bottlenecks than it is to cope with unexpected times of difficulty, or permanent labour shortage.

For example, ACORD Mali found that it was difficult to fit in work on the bougoutti res with other labour commitments to agriculture and to the maintenance of water control structures; in fact during a particularly bad season, many of the beneficiaries left the project area completely to go in search of wild grains for collection. The Turkana water-harvesting project met with resistance against using donkeys for earth-moving because they were needed for other household tasks such as transporting goods to and from the marketplace.

Care needs to be taken in programming project activities to find out about, and plan around, likely seasonal labour bottlenecks.

B The disadvantages of food-for-work may outweigh its advantages. The experience of some projects, particularly the ones which give longer-term benefits such as tree-planting or building water-control structures, is that food-for-work provides an important or even necessary incentive, at least for the first stages of the work, and can help to avoid some of the problems mentioned in the last paragraph, particularly the desertion of the project site during times of need and crisis.

On the other hand, food-for-work brings its own problems: it tends to attract destitute people, rather than the marginal pastoralists who are usually in the best position to make a success of project activities. Also, it may distract people from their usual ways of making a living, or postpone them getting back to their normal activities: the Turkana water-harvesting project found that the food-for-work which they were distributing was encouraging beneficiaries to stay around the distribution centres rather than follow their herds to the best pastures. In this case, a solution was found, namely to rotate access to food-for-work, so that people could not receive it continuously.

Even the very presence of other food-for-work schemes in the area may have undesirable effects on projects. Turkana is a case in point: the EEC Turkana Rehabilitation Project has been organising food-for-work schemes throughout the District for many years, including for large-scale reforestation schemes. OXFAM's small tree-planting project there concludes that this has probably presented a disincentive for people to plant trees by themselves of their own accord, the ultimate objective of the project; and that a similar project would perhaps have had more success in an area where such large-scale food-for-work schemes did not exist.

In situations where potential beneficiaries are short of food, solutions apart from food-for-work may be considered, such as cereal banks or the provision of low-cost grain.

C The need for attribution of rights to the improved land. Improving land hopefully makes it more desirable to use. Consequently, land development is very often followed by a surge of potential users who have stronger or weaker claims to it and to the services or resources on it. Unless access is restricted to those who put in the labour to develop the land and their dependents, these people may be unwilling to continue working on the project and maintaining the improved resources; for the effect of the improvement may be cancelled out by too heavy pressure of use. This is why the improvement of communal pastures may present problems, unless by 'communal' is meant 'belonging to a precisely defined community to the exclusion of others'.

At ACORD's Tin Hama site where common lands have been resown with wild grain seeds, access is to be restricted by only allowing community members to enter for limited periods and at certain times of the year; and community members are to patrol the pastures. It is too early to evaluate this strategy, and information about how things will work out in practice are eagerly awaited. OXFAM AMERICA and VSF's Pastureland Regeneration Projects (Sobo and Youvarou, Central Mali) also include plans for the replanting of common lands; but it is not clear from the

documents seen how rights to the improved resources are to be controlled.

D The need for official recognition of such attributed rights.

The Turkana tree-planting project found that beneficiaries had no incentives to plant trees in the future for themselves, because the planter's rights to his tree had not been clearly defined by government. The Turkana have a well-established traditional system of tree management by users of the land; but the problem here is that this is neither recognised nor enforced by the local authorities; until this happens, there is little to prevent an outsider from grazing his cattle on the newly planted trees, particularly when project personnel have left.

ACORD's Mali programme has found that the management of newly constructed wells has been unsatisfactory, even where a management committee composed of local herders has been appointed, because the rights of that committee have not been officially recognised. This is why the wells are being officially handed over to their 'comités de gestion'.

The Malian bourgouttières in both projects mentioned above have come up against continued conflicts over rights to use and to cut grass on the regenerated pastures, because of the difficulty of excluding other potential users. Before the improvements, such lands were used on a seasonal basis by members of many different pastoralist communities, whose precise grazing patterns and movements varied slightly from year to year according to the quality of the grazing and many other factors. The pastures were also used increasingly by local settled villagers for their own livestock. Experience has shown that it is difficult to manage such improved rangeland without official recognition by the local authorities - and not just by project personnel - of specific rights to specific people or groups of people.

After becoming involved in several disputes between conflicting interest groups over access to the regenerated pastures, ACORD reached agreement with the local authorities that the user community should be specified and officially recognised before work on improving the pastures could begin. In a small number of cases, where agreement was not reached between the conflicting parties even after arbitration by the local authorities, all project work has had to be postponed. In the majority of disputed cases, however, agreement has been reached by dividing the site or by proposing an alternative site to one party. This has so far been possible because fodder may be produced in larger quantities on smaller stretches of suitable land than is usually the case when it grows naturally on the open rangelands.

E The need to defend and enforce these rights. Even where rights to improved resources have been allocated to communities and officially recognised, they still have to be enforced; and this may prove difficult where traditional users insist on claiming traditional rights. For example, the herder management committees which ACORD has been promoting in connection with the bourgouttières in Gao Region, Mali, were not able to exclude the traditional users who arrived to graze their herds there, during the first dry season after the new management plans had been



drawn up (Dec. 1987). In order to enforce the new management of the pasture land, the following question has to be addressed: where are excluded traditional seasonal users meant to go? In the absence of alternative provisions for them, enforcement of newly attributed rights may be impossible.

F The need to provide for traditional users who find themselves excluded. The success of projects to improve natural resources may therefore ultimately depend on there being enough unimproved resources outside the project area for those who find themselves excluded from project benefits. These people may be unwilling for various reasons to change their way of life in such a way as would make it easier for them to exploit their own fields for the cultivation of fodder; for this may involve at least some members of the family settling around the improved resource for some part of the year, and could make what they consider to be the proper care of livestock more difficult to carry out.

In order to guarantee the rights of such people to the common pasture and water resources on which their chosen livelihood depends, these community resources need protecting for their use: again, attribution to named groups of users needs to be considered; as well as official mechanisms to prohibit agriculture and to prevent colonisation of the demarcated rangelands by migrant farmers and other people coming from other areas in search of potential arable land.

ACORD is recognising this need, and there are plans for action-research on 'agro-pastoral units', which would include land used by both settled agropastoralists and by nomadic pastoralists, and would address the complementarity and interconnectedness of the two economies (ACORD Sept. 1987:25). What is needed is surveys of who uses the land and when, including seasonal users and 'bad year only users'; and a strategic regional land use plan, which would take into account the needs of all the different categories of users.

G The cost of bought fodder: cheap for some but prohibitive for others. It has been argued that the cultivation of bourgou is a very economical way of producing animal feed in the riverine zone of Timbuktu Region, Mali, especially when considering the main cultivated alternative which is rice hay; in fact bourgou hay may fetch good prices when taken to the nearest village market for sale (ACORD Dec.87 annexe IV). This represents an additional source of income for producers, and serves the interests of village and town-based livestock owners, a fast-growing group as we have seen.

On the other hand, the cost of bourgou cannot be but high for pastoralists who find themselves excluded from the bourgoutti res and who were used to helping themselves free to what they considered as a common property resource. This is why it is so important, when helping to transform what was previously open-access rangeland into fodder plant fields for the use of specified groups, to make alternative plans such as have been suggested above for those who find themselves excluded from the new benefits.

#### 2.2.4 PROMOTING THE INTEGRATION OF ANIMAL PRODUCTION AND CROP FARMING

ACORD's Mali programme (Timbuktu) (see section 2.2.3) can be said to be promoting the integration of crop farming and livestock-keeping in that beneficiaries of the latest restocking initiatives include livestock-keepers who are from agricultural village backgrounds as well as those from a nomadic background; and animal husbandry activities are linked with the fodder cultivation and rice cultivation components of the same programme, in order to ensure that the restocked animals will have access to cultivated fodder plants and crop residues in addition to the pasture on the open rangelands.

We also saw that in ACORD's Qala en Nahal Refugee Settlement, Sudan, crop residues were fed to livestock owned by settlers, and animal feed trials had been carried out with the various crop residues, as a way of supporting and promoting the benefits to livestock-keepers of some of the by-products of agricultural production (see section 2.1.1). And OXFAM's Turkana Waterharvesting Project (Turkana, Kenya) has been supporting the local people's own efforts at integrating livestock-keeping with sorghum production (see section 2.2.3).

In addition, some projects have focussed even more directly on this topic, and are listed below.

#### PROJECTS

**NIGER:** Embouche bovine (Liboré, near Niamey) ACORD. This cattle-fattening project ran between 1976 and 1979. It targeted village groups of agropastoralists, who fed the cattle with, in addition to hay and fodder plants like bourgou, agricultural by-products: the grass that was weeded out from between the rows of millet (rainy season) and from the rice fields (Feb-March), the straw from the harvested rice (May), and also millet bran, rice bran, and cotton seed (Wardle 1979:12).

**BURKINA FASO:** Projet Agro-Ecologie (ORD Sahel, Prov. Seno, Soum, Oudalan) GERMAN AGRO ACTION. The first phase of this project ran between 1981 and 1985; it included a component entitled 'intégration de l'élevage dans l'agriculture'. One of the main premises of the project was that present 'extensive' and 'unsupervised' animal husbandry practices were one of the main causes of erosion and ecological degradation. It was therefore proposed to 'intensify' animal production. The cutting and storing of hay was the subject of demonstrations to livestock-keepers. The advantages of livestock-keeping to crop farming were also stressed: the importance of manure was explained to farmers, as well as how to collect and store it until it is used either during the rainy season on rainfed farms, or at the appropriate time on irrigated plots (Lindena 1985 and Buritz et al 1985).

An evaluation of the project was carried out in 1984. It stressed the difficulties involved in trying to change the local farmers' animal husbandry practices. Amongst other things, it was

recommended that a specialist in animal husbandry be recruited, in order to help the volunteer already working on this; and that sociological surveys be carried out within the herding communities, in order to facilitate the work (Kone et al 1984:22).

A 1987 application for the extension of funding shows that the project objectives had been narrowed down so as to concentrate on social forestry and agroforestry. Manure demonstrations had been retained, but hay demonstrations had been dropped, as well as any attempt to approach livestock-keepers about their animal husbandry practices. The proposals by the evaluation on animal husbandry had not been taken up. Problems with the communication between livestock-keepers and project staff have been discussed elsewhere (see section 2.2.1).

BURKINA FASO: Programme agro-pastoral (Kiembara, ORD Volta Noire) proposed ACORD. As with original proposals for the previous project, this programme plans for a range of erosion control measures; for the construction of manure trenches and night enclosures for animals; and for controlling animal movements in order to ensure proper management of village land (ACORD 1987:9). Again, the justification is as follows: "Future development of agriculture and animal husbandry must be based on more intensive methods and greater integration of animal husbandry with agriculture and vice versa" (ibid). In line with government policy, the programme is to be carried out through village groups, including 'groupements villageois éleveurs', with their 'responsables élevage villageois' (ibid, annexe 10).

Given the similarities between this programme and the previous project, it is not clear enough why this one will succeed in areas where the previous one failed; hopefully, the involvement of herders' groups will make a fundamental difference to the outcome.

## ISSUES

Many of the issues raised by this type of project do not directly concern the technical aspects of the integration of animal production and crop farming: they concern such areas as the communication between project staff and livestock-keepers, the setting up of herders' groups, the retrieval of loans, and so on, which are dealt with elsewhere in this report. Two points, however, can be raised here:

A The importance of approaching livestock-keepers, not just crop farmers, about new technologies. If the project is seen to approach crop farmers first, or give priority to crop farmers over herders, then it may be more difficult to approach the latter. ACORD Mali policy in their Timbuktu programme, for example, is to approach an equal number of communities from a pastoral nomadic background as from a settled village background, so as to be seen to be fair.

B The new technologies it is proposed to introduce may be difficult to reconcile with a nomadic way of life, therefore it

may be sensible to target semi-settled or settled livestock-keepers. It should not be expected that nomadic pastoralists will change their way of herding livestock overnight in order to participate in a mixed farming project. There are many sound reasons for moving livestock around, and any changes are likely to be gradual. The most promising beneficiaries for this type of project are those livestock-keepers who have already decided, for various reasons, to have a settled base and who possibly already carry out some subsistence farming. In many places there is already a trend towards agropastoralism, and it would seem sensible to recognise and support this.

### 2.2.5 RESPONSES TO CRISIS: DESTOCKING AND RESTOCKING

Most of this section is devoted to restocking projects. At first, there was a lot of opposition to the concept of restocking, since many people felt that one of the main problems of the pastoral zones was overstocking, and restocking would therefore only exacerbate the problem. It was easier to accept the need for restocking as a temporary relief measure in response to dramatic animal losses during a severe drought, such as when the Niger government launched a large-scale stock redistribution plan after the drought of the early 1970s; but more difficult to think of restocking as a desirable development initiative even several years after a drought.

Since then the situation has changed, and it is now generally accepted that overstocking is a localised problem, particularly around settlements and water points, and that many of the remoter pastures are understocked; that pastoral nomadism is in many cases the only viable way of using rangelands in semi-arid and arid areas; and that previous attempts to remove people from the rangelands and encourage them in other rural or urban occupations have often met with failure (Hogg 1985). Further advantages of restocking are that there is no need for any retraining as the beneficiaries are already familiar with herd management; and restocking reduces pressure on the environment around settlement centres by relocating a proportion of the population.

Also referred to briefly are destocking projects. It may seem strange to be discussing two seemingly opposite types of initiative in the same context of drought relief - namely restocking and destocking. In fact they are responses which are appropriate at different stages in the progression of a crisis: as we shall see, help with destocking is appropriate at the height of a crisis, when livestock-keepers are being forced to sell animals at low prices in order to buy food at high prices; whereas restocking facilities are appropriate at a later stage, in order to help producers build up their depleted herds when the worst of the crisis is over.

One of the most important donor responses to disasters is to facilitate grain distribution, whether by organising free handouts, enabling the subsidised distribution of grain, or supporting specially created local buying and selling institutions such as cereal banks. All of these mechanisms have been used in the case of pastoralists and agropastoralists, but the same means have also been used in the case of other people such as crop farmers; often the target group is a mixed one. It has been decided not to include this type of donor initiative in this study, on the grounds that the issues raised are applicable generally to the rural poor, not specifically to livestock-keepers. In this way ACORD's vast programme 'Approvisionnement céréaliier', part of its Mali programme, is not selected for discussion; neither is the recently popular approach of setting up cereal banks (for further reading on cereal banks in an agropastoral community, see Fulton and Winter 1988a and b).

## PROJECTS

### Destocking

MALI: 'Dried meat project', part of ACORD's programme in Mali's 6th and 7th regions. During the 1983-5 drought, as livestock prices plummeted and cereal prices soared, cooperative and intercooperative meetings of herders underlined the necessity of destocking their herds as rapidly as possible but at a price that would allow some purchasing power on the cereal market. Livestock was bought from herders by the cooperatives, and slaughtered after being examined by cooperative veterinary agents. The meat was then dried following traditional techniques, and purchased by various relief agencies as a nutritional supplement to rations being distributed in the feeding camps around Gao, Timbuktu and other nearby urban centres. This project was a great success among herders. The project was also remarkable in that it did not jeopardise the ongoing programme of support to local cooperatives, in the way that other relief measures such as food distribution might have done: indeed, it strengthened these long-term goals (see Nieuwkerk 1987 and Roche 1987).

### Restocking

There are so many different examples of restocking projects facilitated by NGOs in the various semi-arid zones of Africa. The following ones have been selected because they illustrate rather different types of initiative: small-scale versus large-scale stock distributions; loan arrangements according to an indigenous or an introduced model; loans direct to herders, via a pastoral association or a cooperative, and so on. And because they raise rather different types of issues. Several other well-documented cases of restocking are only referred to briefly, but may provide valuable further reading: for example, OXFAM's 'Revitalising pastoralism' in Khor Dirdab, Derudeb District, Red Sea Province, Sudan, where 400 goats had been distributed by 1988 and 100 remained to be distributed (OXFAM Sudan 1988); and VSO's 'Restocking pastoralists' in Northern Kordofan, Sudan, where 1148 sheep and goats were distributed to 130 families between April 1986 and August 1987 (Department of Pastoral-Nomadic Affairs Dec 1986, Feb 1987, and Aug 1987).

**NIGER: Habbanae (Abala, Filingué) OXFAM.** 'Habbanae' or 'animal of friendship' is the Fulfulde term for a particular type of animal loan, which has been imitated by the project. The distinctive characteristics of this pioneer restocking project were first, that no cash was involved in exchanges with herders, either to buy the animals (these were bought in exchange for quantities of cereals) or in connection with the loan itself: animals were handed over to the families concerned, and the loans were later repaid in animals (Maliki 1987). Secondly, different numbers of livestock were distributed to different families, according to the size of the families and their relative poverty. This demanded an intimate knowledge of the local community by project staff, even before restocking could begin.

Thirdly, the project rather than the herder bore any loss of

loaned animals, such as through disease or theft. This was in line with the traditional Fulani loan system from which the project took its name, whereby the owner of the animals, rather than the beneficiary of the loan, bore any such losses. Fourthly, there was additional back-up to every restocked family in the form not only of cereals distributions but also of cash distributions, in order to help meet day to day needs and prevent the need to sell stock in order to do so. Fifthly, the main livestock species loaned was cattle. Sixthly, the 350 families concerned were divided into 8 groups, at the head of which was a leader whose job it was to liaise between the project director and the families.

The project had a successful repayment rate: 87% five years after the initial distribution. It ended in an unexpected way in that the herders made it clear that although they were prepared to pay back the loaned animals, they would rather buy them. This was eventually done, and the money was used to finance other projects in the same zone.

MALI: Prêts Ovins-Caprins, component of ACORD's programme in the 6th and 7th regions. Between 1975 and today there have been three restocking initiatives, each with slightly different arrangements for the restocking process; so they will be dealt with in turn. The original scheme, which ran from 1975 to 1980, was a very large and ambitious enterprise in comparison with any of the other restocking schemes discussed here; some 4500 families were restocked in the Gao and Timbuktu areas. The loans were but one of a number of activities carried out in the context of setting up and strengthening rural cooperatives. These cooperatives were, on paper at least, very large organisations, with typical memberships of 1000 to 3000 families each. Only cooperative members were eligible for the restocking and other activities, and arrangements for the loans were made via a hierarchy of cooperative personnel. The loans were made in cash and had to be repaid in cash.

The main problem faced by the scheme was over the repayments. Not at the beginning, for between 1975 and 1978 the repayment rate was apparently a surprising 100% (Marty 1985:599). But the situation deteriorated very rapidly after that. And it was not the herders who were singled out for blame, since the majority did repay what they owed: the problem occurred at the various levels of cooperative officialdom, where the money was filtered off without trace, or disappeared into other cooperative funds.

A new programme was started in 1982, which attempted to redress the problems faced by the earlier scheme. Figures for beneficiaries were much smaller, and the loans were no longer made at the level of the cooperative, but at the lower level of the 'fraction' (or smallest administrative group for herders); and only 3 herders per fraction were eligible. Loans were still in cash, and repayments were still to be made in cash. After a good start, however, major problems of non-repayment were again faced, and yet again the project came to a halt.

Following pressure from herders involved in the development of ten bourgouttière (fodder) sites in 1987, a further programme of

restocking was launched in 1988 in Gourma Rharous District, Timbuktu Region. By the end of Sept. 1988, 85 families (of which 30 female-headed) in 4 communities had been allocated 62 cows, 588 smallstock and 2 reproductive bulls (ACORD 1988c:14 and Service de l'Elevage, Mali, 1988, section on 'le volet reconstitution du cheptel'). Loans are in cash, repayable in cash after 2 years (smallstock) or 4 years (cows); loans are made via a management committee to individual families, and eligible families are very poor (très démunies); animals remain the property of ACORD and are herded together in a community herd until they have been repaid fully; the reproductive bulls, though paid for, remain ACORD property and are only loaned to the community. The local Service de l'Elevage and other administrative departments are responsible for registering the loan, informing beneficiaries about repayments, and applying the agreed herd management guidelines; this is to be carried out via a management committee composed of community members having responsibility for such aspects as: animal health, bourgou (fodder) management, loan repayments, and supply of equipment. And there are two special commissions, one concerned with buying stock; the other with general 'supervision'.

It is likely that the beneficiaries of the restocking component will have to include in their repayments a fixed cash contribution to the costs of herding the animals (specifically milking and watering them), and for veterinary care (vaccination and anti-parasite treatment) (ACORD Dec. 1987: 'Objectifs et Résultats Economiques Prévisionnels du Volet "Appui aux Eleveurs"' pp.11-2).

In Gao Region (zone pastorale), there are two separate restocking initiatives: one for men and one for women. All have to be very poor (les éleveurs les plus pauvres) to qualify. The project for men has reached two groups of 25 beneficiaries in Menaka Cercle, each of which have received 250 goats; and similar actions are planned for Ansongo and Gao Cercles (ACORD 1988c:25).

The women beneficiaries are members of already existing women's associations, so far in two locations in Menaka Cercle. Many of the women are heads of household. Each group has received a collective herd of goats and sheep, and a fund to cover animal health and herding costs for the first year. In one group, the profit has been distributed at the rate of 2 goats in milk per beneficiary. The collective exploitation of milk is planned (ACORD 1988c:30).

In Gao Region (zone du fleuve), there are two restocking exercises for women in Bourem Cercle: each group has been allocated a collective herd of 70 goats, and 17 sheep for fattening; and a fund to cover animal health and herding costs for the first year (ACORD 1988c:18).

KENYA: Restocking Projects (Isiolo, Wajir, Turkana and Samburu Districts) OXFAM. Between 1983 and 1986 OXFAM carried out a series of restocking projects in the drylands of Kenya, beginning with the pilot project in Isiolo. All of the restocking initiatives were accompanied by regular free distributions of food, for between 9 months and a year. Although these were not



sufficient to cover all the families' needs, they did cover a substantial part; and OXFAM felt that this was much needed in order to prevent the distributed animals from being sold in order to buy food. In addition to food, each family received a plastic jerry can for water, and an axe; and most families received a pack animal to carry the food supplies.

The restocked families had to accept monitoring and close supervision of their stock by the project, which meant that all animals were marked and periodically checked, and the movements of the family were to be recorded. Also, certain conditions were laid down, such as no sales or slaughters allowed in the first year; some sales of males were allowed in the second year, but only with the monitor's approval.

Because a large proportion of the destitute families on food relief in the pastoral areas were female-headed households, and because this was the group from which participants in the earlier projects were selected, the restocking effort considered women beneficiaries. In fact in Wajir, all of the recipients were women; in Isiolo and Turkana, about a quarter were; and in Samburu, about a third ( Fry 1988:47; see section 2.2.2 for further details).

There was no systematic attempt right from the beginning to recover the stock loans in the first two projects, Isiolo and Wajir: the stock were in effect gifts with conditions attached, rather than loans, and no repayment was ever considered. In the case of Turkana, OXFAM staff were very vague about the repayment of the loans, both to recipients and, it seems, among themselves: the rules signed and witnessed for each recipient stated that the family were to acquire full rights to the stock after two years "but may be required to return the original stock". OXFAM is currently attempting to retrieve some of the loans in Turkana; given the background, though, it is only expected that beneficiaries will return 25 of the original 75 animals; and the revolving fund is diminishing rapidly.

In Samburu, on the other hand, it was made clear from the beginning that the loans were to be repaid: after two years, 50 stock were to be returned in payment of the original loan of the same number of animals. These animals were then used by the local committees for recycling to other beneficiaries. In Samburu, therefore, the revolving fund is revolving healthily (Fry 1988).

MALI: Associations d'Éleveurs (Douentza, Mopti) OXFAM-AMERICA and NEAR EAST FOUNDATION. The setting up of herders' associations is a major target of this project, which began in 1985 and is still continuing. The 101 recipient families have been grouped into 6 such associations, with between 7 and 31 families each. Restocking has been the main project activity. It was hoped that the loans could be given to the association rather than to individual household heads. In practice, however, this has not worked out, and the loans, as with other restocking projects, have been arranged directly with the latter.

The distinctive feature of this restocking initiative is the buying arrangements: although the loan is in cash, the money is

handed over by project personnel at the point of sale, once the recipient has himself selected the stock he desires and settled the price with the seller. By the end of the first year after restocking, the majority of recipients had made the appropriate proportion of their repayments, and the money was used to buy more female stock to loan out (Maliki 1987).

## ISSUES

A Cost of restocking. Restocking is cheap in comparison with irrigated agriculture, and comparable with gravity-fed and water-catchment agriculture (Fry 1988:57). The average cost per household of a number of restocking projects, in relation to the number of households concerned and the number of animals distributed, is given in Toulmin 1986:15. It is interesting to note that ACORD's first initiative in Mali is the cheapest of those considered at US\$75 for 5000 households (5-10 smallstock per family); and OXFAM's Isiolo Kenya project the most expensive at US\$1200-1300 for 70 households (50-80 smallstock, pack animals, domestic equipment and regular grain distributions for each family). Restocking is obviously cheaper if livestock is distributed as a loan (as with ACORD Mali) rather than as a gift (as with OXFAM Isiolo Kenya) and if loan repayments are taken into account; and if local rather than expatriate workers are engaged, as has been done in the case of OXFAM Samburu, Kenya.

B Locally known loan model versus an unfamiliar one. Habbanae project was facilitated by the fact that it was based on a well-known and widely practised Fulani loan system. Many pastoral societies have similar loan arrangements; and it is important to check locally to find out which system is in use in order to follow it as far as is convenient, as it is likely to facilitate acceptance of the project by herders. Such loan arrangements may not be restricted within ethnic boundaries, but may be practised between neighbours of different cultural groups: for example, the Tuareg of Dakoro, some 400km to the east of the Habbanae project, were familiar with this same type of loan which they knew by the same Fulfulde term (habbanaya), and which they practised with local Fulani (Oxby 1978:82-3).

C Timing of restocking. The speed of restocking is partly dependent on fortunate timing; for example if another drought hits shortly after restocking, herd reconstitution may be seriously delayed, as happened in Isiolo, Kenya. The recent OXFAM evaluation warns against restocking too closely after a disaster, since time should be left to allow the traditional system of recovery to operate (e.g. collecting animals from credits and exchanging large stock for smallstock), so as not to undermine its usefulness in times of future stress (Fry 1988:9 and 63).

D Gift or loan? This is a much debated topic, both in the early days of restocking, and still today. On the one hand, it is argued that repayments are necessary in order to keep the costs of the project down; on the other hand, that repayments, especially if they are required at an early stage, delay unacceptably the process of restocking. Fry supports the view of certain OXFAM staff who devised the Kenya restocking projects:

that if the donor wants to maximise the recipient's chances of surviving the next drought then the animals should be an outright gift, not a loan. If donors insist on full repayment of their capital investment, however, then return of the animals should not begin until the initial herd size has doubled twice (approx. 8-10 years), and repayment should not exceed 10% of the loan per year (Fry 1988:61).

The reality of most restocking projects, however, is very different: most use loans rather than gifts, and start demanding loan repayments within a year or two.

Two points in favour of loans rather than gifts are: firstly, that it is easier to repudiate claims by needy relatives and friends upon recently restocked families if it is made quite clear to beneficiaries that the animals are a loan rather than a gift. And secondly, as we have seen, many herding societies are already familiar with loan arrangements (though these are not usually loans of whole herds, but loans of small numbers of animals to supplement an already-existing herd).

E Loans to households or to herder groups? Several of the projects discussed above have attempted to distribute stock to herder groups, whether pastoral associations or cooperatives, in such a way that herder members of the group would hopefully take over from the project many of the responsibilities associated with restocking, such as selection of recipients, monitoring of herds, and retrieval of loans. In practice, however, such attempts have on the whole failed, and loans have been made directly to individual households or household heads. In some cases, governments have been unwilling to support the particular type of group proposed by the project (as in the Douentza project); in other cases, herders have perhaps been reluctant to take on responsibility for each other's actions, particularly in the area of loan repayments.

F Loans in cash or in livestock, and buying arrangements. Habbanae project staff took on the responsibility of buying the stock themselves, a task which necessitates much specialised local knowledge. The OXFAM restocking projects in Kenya did likewise, and tended to build up special relationships with local traders for the purpose.

ACORD Mali, on the other hand, distributed cash to beneficiaries. This had the advantage that the herders could choose to buy the animals which they preferred, rather than accept what the project gave them, and it was also less onerous on project staff, who did not have the responsibility of buying animals and taking care of them until they could be transferred to the beneficiaries. Also, it is often difficult to find large numbers of suitable animals for sale when required for restocking. This buying system minimises this problem to the project by shifting it onto the herders.

But it was difficult to check whether the herders actually spent the money on stock or whether they used it for some other purpose. In fact Marty (1985:602) makes it clear that although the cash transferred was sufficient for each herder to buy 10

sheep or goats, in fact the numbers bought were certainly inferior to this. He points out, however, that this was not necessarily a fault in the scheme, since this flexibility helped herd reconstitution in an indirect way, by limiting the need to sell other animals so as to meet their day to day needs. This was especially likely since at no stage in ACORD'S Mali programme were cash or cereals systematically distributed to every restocked family, as in other restocking programmes (though some families may have benefitted from other components of the programme, such as the sale of subsidised cereals).

The Douentza project adopted an intermediary system: although the loan was in cash, the money was handed over by project personnel at the point of sale, once the recipient had himself selected the stock he desired and settled the price with the seller. This system would appear to have the advantage over the other two so far considered (1. buying by project staff and 2. by recipients) in that on the one hand project staff do not have to be so experienced in selecting stock, neither do they have to look after the stock until it can be handed over to recipients; and, on the other hand, there is not the risk that the money will be spent on something other than stock. But there is perhaps the danger that the presence of project personnel in the market place may push livestock prices up.

G Livestock of which species? A decision has to be taken on whether to distribute smallstock or large stock or a combination of both. In general, smallstock are preferred, because they are easier to purchase and exchange on the market, and less of a risk in their larger numbers than a single or small number of large stock would be. Goats are usually preferred to sheep because of their greater subsistence value. In OXFAM'S pilot project, Isiolo, the mistake was made to buy sheep rather than goats, because sheep were easier to buy; but it was later realised that sheep were less useful than goats in the subsistence production of milk. Subsequent projects consequently focused on goats.

But there are examples of large stock being preferred: Habbanae project distributed mainly cattle because of the local herders' reliance on this species; and in ACORD'S latest restocking initiative in Timbuktu Region, Mali, beneficiaries may choose between 8 smallstock and 2 cows with 5 smallstock.

H How many livestock per household? This is a much-debated topic. Firstly one has to decide whether the livestock to be received by each beneficiary is supposed to represent a viable herd in itself; or whether it is intended to supplement an already-existing herd. Ideally the total number of livestock would represent a viable herd. But in both cases, calculations are complicated by the lack of agreement over what constitutes a viable herd size: this varies not only according to such obvious factors such as livestock species, but is also related to more subtle considerations such as the condition of those stock, the time of year when restocking takes place (if just before the rainy season, then fewer animals are needed), a variety of local factors such as the prevalence of disease, and whether/how soon the donor will insist on repayments.

Meanwhile there is considerable variation between projects as to the numbers distributed: the Samburu local committees (OXFAM, Kenya), for example, decided to bring down the number of small ruminants from 75 to 50. Compare these figures, which appear to represent a viable herd size, with, for example, the ACORD/Mali/Timbuktu figures quoted at the end of G above, which can only represent a supplement to an already-existing herd.

I Selection of recipients. The number of stock to be distributed will affect how beneficiaries should be selected and in particular how many stock if any they are required to possess to be eligible for restocking: if a viable herd is to be distributed, then in theory utterly destitute ex-herders could be eligible; if on the other hand only a herd supplement is to be distributed, then the destitute could not be eligible and only those who were near-viable herders would be. Ideally, the number of stock allocated per family would vary according to the number of animals already possessed, in order to bring the total number up to a viable herd size; but the Habbanae project is the only restocking project among those reviewed to attempt such a fine match of family needs and number of animals loaned. All other projects have established a fixed number for every family. The selection of recipients therefore is extremely important: in theory, the only eligible families should be those who already possess the number of animals which, together with those to be distributed, would add up to a viable herd size.

It is always difficult to find out how many animals an individual, and even more so a family, owns; and so selection of recipients is potentially a very time-consuming and problematic process. Several solutions, sometimes in combination, have been tried: reliance upon the decision of an expatriate who has several years experience of the immediate area (e.g. Habbanae, Niger; Douentza project, Mali); referral by other local project personnel (Turkana, Kenya); and the setting up of local committees (Samburu, Kenya).

One principle, which has been taken on board by most agencies, is that the most destitute families should not be selected, even if a viable herd is to be distributed, as such people may be unable to avoid selling stock in order to meet debts and immediate needs. The exception is ACORD's 1989 restocking initiative in Mali: project documents emphasise that only the 'familles les plus défavorisées' will be eligible for restocking. Since the numbers of stock to be distributed are low, it is not clear how recipients will be able to become viable herders after restocking.

Another set of criteria for the selection of beneficiaries concerns their animal husbandry skills and their willingness to return to the range. For OXFAM/Kenya and for the Department of Pastoral-Nomadic Affairs/Sudan, these are perhaps the most important factors.

One problem to beware of, is that of local persons of influence who see restocking as a source of patronage (in relation to OXFAM's Turkana Restocking Project, see Burke 1987:15); such persons should be excluded from taking decisions about the

nominations of families and, as far as possible, from influencing those who do take the decisions.

J. Extras: desirable? necessary? There is no agreement as to the priority to be given to the distribution of 'extras' such as food and veterinary drugs. It is argued by some that food is needed in order to avoid animal sales; and drugs, in order to avoid animal deaths. On the other hand such free distributions may provoke feelings of resentment amongst those excluded: why should a restocked family have special access to food and drugs, whereas a family which was not fortunate enough to be restocked, is also ineligible for these other benefits?

If very poor people are selected and if only small numbers of animals are distributed, then there is a strong case for accompanying gifts or loans of cash and cereals, so that recipients will not be obliged to sell animals in the initial restocking phase in order to buy food. Fry suggests that food should be given until the animals produce milk, at the rate of one 90kg bag of maize per family per month (Fry 1988:62). If cereals are distributed, then it may be necessary to allocate pack animals such as donkeys for transport, as OXFAM has done in Kenya.

K. Repayments. Loan repayments have proved easier to organise in the smaller restocking projects, those with greater supervision by project staff of repayment arrangements: the Habbanae project (350 beneficiary families) had a successful repayment rate: 87% five years after the initial distribution.

Although it is early days, the Douentza project (101 beneficiary families) also seems to be going well in this respect: the majority repaid the 15% expected at the end of year one. The main problem faced so far has been the realisation that the repayments were often made at the expense of having to sell reproductive animals. This, aggravated by the fact that many of the animals were bought at the height of the drought and were therefore in bad condition and were subsequently lost, has meant that herd reconstitution has been seriously delayed.

ACORD's large Mali restocking programme, however, has faced severe and repeated repayments problems. According to Marty, the project was too geographically dispersed, which made for unsurmountable problems of follow-up for the local government departments concerned. According to the 1983 Project Evaluation, the chefs de fraction and their advisers were particularly singled out for blame: they had listed non-existent beneficiaries; they had chosen beneficiaries from amongst their wealthier supporters, rather than amongst the needy; and, in certain cases, they had managed to list themselves as beneficiaries. In the cooperatives of Menaka area and at Talataye, the supposed restocking for needy families had been gradually transformed into a system of cash loans to cooperative officials, who had used the money not for restocking but for their own business purposes (Thébaud et al 1983:48-50).

The 1987 evaluation cited the following reasons for the non-repayment of loans and the consequent breakdown of the

restocking project: the scheme was badly explained, or not explained, to the herders. In some cases, beneficiaries were chosen, and loans were handed over, without any follow-up about repayments. The absence of accompanying benefits or services, such as systematic cereals distributions and animal health provisions for all restocked families, probably led to a particularly high rate of animal losses through sale or death. And finally, not enough resources had been allocated, at the project planning stage, to follow-up of the loans (ACORD Sept. 1987c:15-6).

To this may be added the points already referred to that ACORD was only distributing small numbers of stock per family; and was not ensuring that the selected families already were nearly viable pastoralists, but was including destitute families. There was, therefore, the probability that many families were not in a position to manage the repayments when they were demanded; and that if they had been able to repay the stock, this may have considerably delayed or even impeded any prospect of them being restocked and becoming viable pastoralists once again.

L. If animals allocated to beneficiaries are kept in special herd, then restocking will be postponed. ACORD Mali's most recent restocking initiatives represent quite a move from common practice in that the animals, rather than being handed directly to the recipient at the time the loan is agreed, are kept in a special herd until the loan is repaid several years later. Such arrangements, although they may ensure better loan repayment rates, will undoubtedly postpone the time when the beneficiary will be able to become a viable and independent producer again, and when he or she will be able to return to the rangelands to give the animals better pasture than is available around settlements - the ultimate aims of most restocking projects.

But since ACORD is only supplying a small number of animals per family, rather than a viable herd, then perhaps it has rather different aims from most other restocking projects: perhaps it aims to provide an income supplement rather than create a viable livelihood. The question then arises, how can one justify the selection of the poorest families for this type of project, since such people will have no income to supplement.

M. Monitoring problems when restocked herders return to the rangelands. Because of the success of the Habbanae restocking project, in that it enabled families to be viable as livestock-keepers, many of them were able to move away from the project area into other administrative districts, and even over the frontier to Mali. The problem of difficult follow-up is one that was experienced and has subsequently been experienced by other restocking projects.

It seems that there is a fundamental incompatibility between the ultimate aim of restocking - namely to enable herders to return to a way of life based on livestock-keeping, which will often need to be nomadic - and the need for follow-up and monitoring of restocked families: families on the move following their herds to the best pastures are notoriously difficult to keep track of; and it is probably unrealistic to hope that the local livestock

services will be able to give priority to this. In the light of this the desire for detailed long-term monitoring may have to be curtailed, and all possible measures taken before the animals are distributed.

The most obvious need for follow-up and monitoring is in the field of veterinary care: livestock bought on the market are notorious for their health problems, and less than full health may be the reason why the owner wanted to sell. OXFAM's Kenya projects - with one exception - were not successful in working closely with the district veterinary services, and as a result the project staff ended up spending a lot of time, often too much time, on animal health monitoring and on facilitating the supply of drugs. Also, the monitors who were engaged by the projects were usually local school-leavers, and did not have the experience necessary either for taking charge of or even for carrying out the data collection. A local senior supervisor would have been needed. Problems of data collection were exacerbated by the fact that OXFAM had not finally decided exactly which data were required for useful and realistic monitoring of the stock (Moris 1987). The recent evaluation of these projects recommends that all animals for restocking should be bought within the area rather than imported from neighbouring areas; and should be dosed against all the diseases prevalent in the area before being delivered to the families (Fry 1988:63).



## 2.2.6 ANIMAL HEALTH AND THE TRAINING OF HERDERS, HERDER SPECIALISTS, AND LIVESTOCK TECHNICIANS

Most of the programmes considered in this section concern training in the subject of animal health. All are responding to the gap between the herder's needs and the provisions made by local government veterinary services - a gap which is felt particularly in remote pastoral zones of low population density, where such services are often difficult to provide. But three different approaches to this problem are taken: one approach is to train herders directly, as individuals or as members of herders' associations, so that they are better able to care for their own livestock.

A more popular approach, in terms of the number of NGO programmes following it, is to select one or a small number of herders from each community, and to give them a basic training in veterinary care. The idea is that they will become local veterinary specialists, able to provide some care for all the animals in the community, and willing to report any special local needs to the local veterinary authorities. These people, once trained, may be called animal health workers, auxiliaries, ancillary workers, para-vets, barefoot vets, and so on.

The final approach is to give a broader training to local government animal health workers than they would normally receive, in the hope that they will understand the herders' problems better, and respond to their needs more satisfactorily.

All these three approaches, however, rely on an adequate supply of drugs and vaccines, and on the stock-keepers being able to reach that supply and afford to pay for it. The last programme considered in this section is a cooperative which supplies, among other things, veterinary products to herders.

### PROJECTS

KENYA: Livestock programme, Kamujine Farmers' Centre (Lower Meru) ITDG. Proposed training of herders. The Kamujine Farmers' Centre is run by the Diocese of Meru and is currently funded by OXFAM. It is an agricultural training centre for local farmers, and work is carried out in cooperation with local women's, youth and farmers' groups. Until now, activities in the livestock field have been limited to improving animal health with tick control crushes, and work with ox-drawn ploughs.

Since the Centre is in an agropastoral area, and many farmers keep livestock, it is being proposed to create a special livestock programme. ITDG has produced a feasibility study for this, including a detailed socio-economic survey of livestock-keeping in the area (Young 1987). As a first step, it is suggested that an animal health store be opened at the Centre. Subsequently, there would be training programmes on topics such as: access to inputs; fodder availability and animal feeding; animal health; general livestock husbandry; breeding and fertility; the integration of livestock with crop production;

improved breeds; and marketing.

KENYA: Community Animal First Aid Worker Programme (Nginyang Division, Baringo District) ITDG. Training of herder specialists. The CAFAW programme is part of a wider Food Security Programme, which includes other activities such as the provision of water, rangeland improvement, and animal exchange.

The first two-week training course took place in October 1987 (Trittler 1987:3). This was followed by others, at which selected livestock owners from the project areas, as well as project extension workers, were trained in the setting up of a decentralised animal health service. The livestock owners were selected by their own communities. They were trained to recognise and treat the common diseases, such as worms and ticks, and to advise their neighbours on simple methods of disease prevention. The training also included simple record-keeping. Afterwards they were given a first aid kit of equipment and medicines and they returned to their communities. They charge for the medicines used, at a small mark-up, and then purchase more medicines from the project with the proceeds. They refer more serious cases to the extension workers.

The extension workers were first of all trained in training techniques so that they could help in the training of the CAFAWs. In addition they received training to support and monitor the CAFAWs, and to sell them more medicines. In a second course they were trained to recognise and treat the common more serious diseases such as pneumonia and trypanosomiasis. The extension workers regularly inspect the CAFAWs' record books and then transfer the information onto summary sheets; and they keep records of the serious cases they treat themselves. The data thus provides a detailed picture of the animals treated by the programme.

A proposed second stage of the project would be concerned largely with the transfer of skills to Kenya Freedom From Hunger staff, who would continue to implement the animal health component of the Food Security Programme without assistance from ITDG (ITDG 1988).

ERITREA: Veterinary Project (all of Eritrea) WAR ON WANT and ERA. Training of herder specialists. Proposed activities include: a comprehensive vaccination programme against diseases such as rinderpest, anthrax, black quarter, rabies and sheep/goat pox; and the setting up of a 'cold chain' for the delivery of vaccines to some 75 'peasant vaccinators' who will implement the scheme. Secondly, the upgrading of peasant vaccinators to 'para-vets', by broader training and the provision of drugs and materials to them. The para-vets will treat trypanosomiasis, parasites, wounds, infections, and so on. Para-vets will receive food-for-work, food to be provided by the Mole Valley Farmers, South Molton, Devon, UK. And thirdly, the establishment of improved veterinary investigation facilities so that field operators may identify parasites and causes of infection as well as perform post-mortems. This involves setting up a central laboratory, with suitable equipment, and short-term expatriate aid to set up routine veterinary diagnostic procedures (ERA 1984

and Bandaïd 1986b).

By 1987, an efficient vaccination programme, run through a revolving fund, had been established by the EPLF's Livestock Subcommittee (Robinson 1987a:14-5).

ACORD is currently working with the Agricultural Commission of the EPLF on a research and training programme (Euro Action ACORD and ERA 1986 and Robinson 1987). It is hoped that ACORD will be able to provide technical assistance in order to facilitate the close working relationship between vets and herders; and also to collect baseline data on the whole spectrum of livestock-keeping, from pastoral nomadism to settled agro-pastoralism.

SUDAN: Para-vet programme (Terekeka District, Equatoria Region)  
OXFAM and ACCOMPLISH, Training of herder specialists. ACCOMPLISH (Action Committee for the Promotion of Local Initiative in Self-Help) is a local NGO. In cooperation with a livestock adviser provided by OXFAM, and the paramount chief for the Mundari, 21 para-vets were selected in 1986. These then received training, with the help of a government veterinary officer at a local government farm. Much emphasis was placed on training relating to prevention rather than cure, and on the need for vaccinations. The para-vets were then supervised as they vaccinated cattle in cattle camps. 'After 3 weeks vaccination work most of the para-vets had reached a satisfactory standard' (Almond 1987:3). About 16 of the para-vets originally selected were working well in 1987, and the following numbers of livestock had been vaccinated: 150 000 against rinderpest; 50 000 against H.S.; and 2 000 against C.B.P.P. (ibid:5-6).

The role of the supervisor is important: the para-vets are usually in their villages or cattle camps, and bring any information about disease problems to the supervisor, who takes appropriate action. If a vaccination campaign is necessary, the supervisor calls for the para-vets and sets up a team.

A simple laboratory has been set up at ACCOMPLISH in order to facilitate diagnostic work. The 'cold chain' for the freezing of vaccines, vital for the success of vaccination programmes, comprises of a freezer and a refrigerator in Juba, and kerosene refrigerators in Tali Post and Terekeka towns. A revolving fund was set up for the purchase of drugs and vaccines, to be supplied via ACCOMPLISH. Prices charged to herders reflect the real cost of supplies, plus 10% for the para-vets. When the para-vets are required to work together as vaccination teams they are paid on a daily basis from funds raised through vaccine sales. Stock owners, aware of the fatal nature of the disease and its ability to spread rapidly, showed little or no resistance to paying for Rinderpest vaccinations; but they were less likely to request vaccine for H.S. and C.B.P.P., probably because mortality is lower and these diseases do not occur as major epidemics.

The main problems encountered result from the effects of the civil war. Epidemics of C.B.P.P. and East Coast Fever were the direct result of overcrowding of cattle into restricted areas around Juba town. Insecurity makes it difficult for staff to travel within the district; and it is increasingly difficult to

ensure the supply of vaccines to Tali Post and Terekeka.

CHAD: Ishtirak. Pastoral associations in Batha (Oum Hadjer, Batha province) OXFAM. Training of herder specialists. Each of the 8 pastoral associations set up in the context of this project (see section 2.2.1) have designated two veterinary auxiliaries from their membership: one in charge, and one his deputy. These 16 auxiliaries attended a three day training course in basic animal health at Oum Hadjer in February 1988, which was organised by project personnel. At the end of the course, each association was given a revolving fund of veterinary products, to be sold only to association members. The selling price is the buying price increased by 10%, in order to reimburse the project. The auxiliaries are not paid, but receive in exchange other types of service from the association. They are expected to keep their association members informed about the local incidence of animal disease, and have already played an important role in facilitating a systematic vaccination campaign against anthrax. All association members' animals were vaccinated. Vaccinations are paid for, and needy cases may use an advance from the association's special 'social fund', which is financed out of membership fees (OXFAM-Chad 1988a:4).

CHAD: Session de recyclage et formation des agents techniques de l'élevage (N'Djaména, Ati and Oum Hadjer) OXFAM. Training of government livestock technicians. A series of three training courses has been organised by DEFRVZ (Direction de l'Enseignement, de la Formation et de la Recherche Vétérinaire et Zootechnique, Ministère de l'Elevage et de l'Hydraulique pastorale); they took place in Dec. 86, April 87, and May 88. The aim of the courses was to attempt to broaden the outlook of ATEs (Agents Techniques de l'Elevage) from being narrowly concerned with animal health issues, to a more multi-disciplinary approach to the various animal husbandry problems of the region. The courses included, in addition to animal production and animal health, the sociology and economics of pastoralism and agropastoralism; the study of grasses and fodder plants of the region, and possibilities for the intensification of fodder production; range management; cartography; and a review of livestock development projects in the country.

About 50 ATEs from all of the veterinary posts in the sahelian zone of the country were able to attend. Each session lasted for five days. The sessions were in sequence, so that each ATE was expected to attend all three sessions. The methods of communication used were small discussion groups and plenary sessions, in order to encourage the ATEs to speak freely. The training sessions were successful in that they were much appreciated by the ATE'S. It is too early, however, to judge the extent to which ATEs will be able to put into practice what they have learned.

MALI: Animal fodder development project (Douentza, Mopti) VSF. This project has already helped to set up a veterinary cooperative, which is managed jointly by the local herders, VSF (Vétérinaires sans Frontières), and the Office de Développement de l'Elevage, Mopti. The project activities - purchase and sale of fodder and veterinary medicines to member herders - will be

sustained by the sale of cattle, the returns from which will provide a rolling fund for the purchase and administration of further inputs (Bandaïd 1986a).

## ISSUES

A How to decide between the training of groups of herders, the training of herder specialists, and the training of livestock technicians? The solution will obviously depend on the location, the government services already available there, and the type of support that can be expected from the government veterinary services. The training of groups of herders requires lots of time and effort to reach but a few people.

The training of herder specialists is usually preferred because larger numbers of livestock-owners can be reached: whereas the herder is only concerned with the health of his own stock, the para-vet is partly responsible for the health of all the livestock in his community. One of the advantages of the training of herder specialists over the development of local government veterinary services is that the former are based in the livestock-keeping communities, are therefore more likely to hear about animal disease, and are on the spot to take the necessary action. They are also more accustomed to living in cattle camps, and can take advantage of the early mornings for treating livestock. The town-based veterinary officer, on the other hand, may try to restrict the time spent away from town, and may insist on returning to town at night even during vaccination campaigns in remote areas (Almond 1987:4). The case for the para-vet approach, in this case for northern Kenya, has been put by Halpin (1981).

The further training of livestock technicians or veterinary officers has a potentially even wider impact, providing the location in question is already adequately served by such government services; but it requires lots of support from the government in order to implement the lessons learnt in the training process, and depends on the government having adequate resources to do this.

B Herder specialists: mobility. If a disease outbreak occurs in a cattle camp which is a long way from the nearest veterinary post, it may take some days before a para-vet on foot can report to his supervisor; this was a problem in Terekeka. Equatoria, Sudan, and subsequently the Mundari have been supplied with bicycles.

A consequence of such problems of mobility is that para-vets find it easiest to care for the livestock-keepers living in their immediate vicinity. If the para-vet is based in a settled or semi-settled community, then the more nomadic livestock-keepers may find that they are not receiving the desired attention. The Nomadic Animal Health Auxiliaries programme of the Association Française des Volontaires du Progrès: Développement d'un oasis en Somalie du nord (Garole District, Somalia) found that although the programme was designed for nomadic pastoralists, the people it was actually helping most were members of the semi-settled

oasis community (DONS 1988).

C Herder specialists: remuneration. Para-vets are usually unsalaried, but are allowed to charge herders an additional 5-10% over the cost of the supplies they provide (though not Ishtirak, see above), which they retain for themselves. A common complaint from para-vets is that they are not adequately compensated for their time and trouble, especially if their work requires them to move over long distances. The CAFAW programme in Baringo, Kenya, has experienced such problems. So has the programme in Terekeka, Equatoria, Sudan: as a temporary solution, ACCOMPLISH has arranged to supply food-for-work to the para-vets there.

D Herder specialists: links with government services are crucial. Experience of the Niger Range and Livestock Programme and the Niger Livestock Service with the training of veterinary auxiliaries (though not an NGO initiative, there are many useful points of comparison with the NGO programmes considered in this section) suggests that there needs to be a clearer understanding, both by herders and by the technical services, of the role auxiliaries can play. Government services with inadequate budgets are understandably tempted to see auxiliaries as voluntary extension agents for government programmes, and to try to use them accordingly, or alternatively to dismiss the auxiliaries either as incompetent or as competitors.

Herders on the other hand sometimes see auxiliaries as simple dispensers of free drugs from the government. The auxiliaries themselves, keen to practise their new skills but with a limited amount of time to spend away from their own herding tasks, may find themselves uncertain about their role and have second thoughts about spending a lot of unpaid time; alternatively they may come to see their auxiliary work as a first step towards a job in the most junior grade of the civil service.

The programme of which the training of auxiliaries is a part deliberately tried to multiply honorary posts so that each office-holder felt that he or she was one of several people doing jobs for the common good, but a change of perception is also needed on the part of civil servants as to the limitations but also the real potential of the auxiliaries (Swift and Maliki 1984:21).

E Herder specialists: success depends on supply of drugs at prices acceptable to herders. Para-vets cannot mark up the cost of supplies too much in case the price becomes prohibitive to livestock-keepers, who may prefer to travel long distances to acquire drugs at lower prices, and administer them themselves. Where the supply of drugs at acceptable prices is a problem, then one solution to consider is the setting up of a veterinary cooperative amongst the livestock-keepers, along the lines of the one in Mopti, Mali, described above. Another solution under consideration by the CAFAW programme, Baringo, Kenya, is to support community members such as traders or women's groups in their efforts to supply simple medicines (ITDG 1988:5).

F Herder specialists: government restrictions on the handling of certain drugs. Para-vets may not be allowed to handle certain

drugs which are restricted to use by veterinary surgeons. This has been the most serious problem faced by the CAFAW programme, Baringo, Kenya. It has resulted in some cases in the herders losing confidence in the Community Animal First Aid Workers, so that these are bypassed and instead the extension workers or government staff are approached directly about serious diseases. Such issues have to be considered and possibly negotiated with government early on in the project planning phase; in the absence of a compromise, the training of para-vets has to be closely planned in accordance with the regulations applying in the country.

G Training of livestock technicians: the need for continued support from government. This was a problem with the training sessions in Chad: it had been hoped that the same two DEFRVZ training officers would participate in all three courses, and would eventually constitute a permanent group which would take charge of future training courses. Unfortunately, this was not possible: the persons kept changing, and as they were newly qualified, they did not have the necessary experience or knowledge of the field. The project did not have the support of the Director of DEFRVZ, even though it had been discussed before signing with the Director-General of the Ministère de l'Élevage. Meanwhile OXFAM is left wondering whether DEFRVZ was the most appropriate partner for this kind of initiative (OXFAM-Chad 1988b).

A related problem was encountered: the ATEs grasped this opportunity of expressing complaints about administrative aspects of their employment and career structure, and were disappointed when it became clear that immediate solutions would not be forthcoming.

H Livestock technicians: their work within the livestock-owning group may be hampered if they refer data on livestock holdings back to the tax collector. This was unfortunately the case with some of the 'cooperative veterinary posts' set up in the early 1980's with support from ACORD's Mali programme (for example that of Tessalit). Such posts were manned by an 'agent d'élevage' supplied by the government livestock service, whose duties also included enumerating herds for the purposes of tax collection (Thébaud et al 1983:62). For this and other reasons, this component of the programme has not been renewed.

### 2.2.7 DATA COLLECTION ON PASTORALIST AND AGROPASTORALIST ECONOMIES

Given the relative lack of knowledge about (agro)pastoral societies and economies in comparison with agricultural ones, many programmes are starting with a period of local data collection during which time the details of the programme are worked out. For example, ACORD's Red Sea Hills Programme, Sudan is collecting information on the local pastoral economy including women's role in it, in order to prepare for the operational phase of the programme (Babikar Abbas 1988 and McEwan 1988). Both OXFAM's Affolé Project, Mauritania and ACORD's Mali programme are collecting information on women's role in animal husbandry in anticipation of a new project component (see section 2.2.2). In addition ACORD Mali is collecting or is planning to collect data on livestock marketing and transport problems in the pastoral zone (Timbuktu); and on pasture development and the users of water points (Gao) - all with a view to guiding the planning of future project components (see ACORD Mali project documents).

ITDG has been carrying out socio-economic surveys of livestock-keeping in Lower Meru, Kenya, in connection with the proposed livestock programme at the Kamujine Farmers' Centre (Young 1987); and in Baringo, Kenya, in connection with the Community Animal First Aid Worker Programme (ITDG 1988:3). Both surveys are to assist subsequent programme planning in animal health. And ACORD's Qala en Nahal Refugee Settlement, Sudan is collecting data on a wide number of topics in relation to its future programme planning in livestock-keeping (see section 2.1.1.), and so on.

Other programmes are collecting data throughout their duration, in order to refine and adjust the work in relation to the most up-to-date local information. This is the case for OXFAM's Ishtirak Project, Chad, which is collecting information on livestock marketing, in collaboration with a livestock technical agent from the local Service de l'Élevage; and has plans for regular surveys on the local agropastoral economy in connection with the establishment of herders' associations (see section 2.2.1).

Such an approach is also planned for the semi-arid farming component of ACORD's Sablaale settlement scheme, Somalia: preliminary village surveys have already provided valuable data on land use (specifically land rights, the private registration of land for agriculture, the enclosure of riverain pasture land, and the alienation of land for large-scale projects) and on responses to such changes by indigenous communities in order to protect their interests and/or adapt their economic survival strategies (Spooner 1989:9-11). It is anticipated that data collection, in this case called 'adaptive research', will be an integral part of programme activities, in order to plan, amend and refine the various programme components (Robinson 1987:7 and Hassan Isaak 1988:4).



In some cases, data collection and processing represents the main thrust of programme activities. One example is OXFAM's Ganndal Ngaynaaka (Ferlo, Senegal), a recently completed project whose purpose was to build up a body of information on pastoralist society and animal production in the area in question, with a view to orientating two further projects in the same region, one on the training of veterinary auxiliaries, and the other on the setting up of village associations. Several pamphlets have been produced in the local language, Poular or Fulfulde, along with a full report in French (Bonfiglioli and Diallo 1988).

Another example is OXFAM's Red Sea Hills Programme, Sudan, which has been collecting province-wide nutritional and economic data in order to target accurately their food distribution activities there (Walker 1987).

OXFAM has also been collecting 'early warning data', in order to be able to have advance warning of possible future drought-related emergencies, and so as to be able to target their assistance in a precise way. In addition to the regular reporting of such data by projects via the country representatives and the desks at OXFAM House U.K. to the Emergencies Unit there, OXFAM set up a special early warning project in early 1987: the Drought contingency planning project (Turkana, Kenya). This is a high technology enterprise, and a quarterly bulletin is issued, containing some 20 pages of computerised data on the subjects of: rainfall (from 47 station throughout the district), state of water sources and natural vegetation, nutritional condition of livestock, animal diseases, livestock births, livestock sales and prices, bleeding and milking of livestock, cereal purchases by households, food consumption, school attendance of pastoralist children, family members leaving for work, and the nutritional and health status of pastoralist population, especially children. The information on these indicators comes from a variety of sources, including: regular surveys of rural households, data from district technical services and administrators, and air surveys (Early Warning System Bulletin 1988).

A new OXFAM project is starting in Chad: Hadara - Knowledge of Kanem and Lake Regions of Chad. It is an information-gathering project, and the aim is to get a better understanding of the local agropastoral economy. More specifically, the project is to help the Ministry of Animal Husbandry develop an appropriate pastoral monitoring system, and to provide OXFAM with a socio-economic profile of a vulnerable area of Chad. These objectives will be achieved by setting up and testing a methodology for collection and analysis of data from the livestock sector (market price of animals, state of pastures, animal health, etc.), by training local livestock agents in the data collection system, and by training a technician from the Statistics Office of the Ministry to take over the system at the end of the two year term of the project.

## ISSUES

A The different purposes of data collection. Three different types of data collection are distinguished: firstly, one-off exercises at the beginning of the project or before the operational part of the project starts, in order to determine or assist with project design; secondly, regular information-gathering throughout the project, in order to refine and amend the project as it goes along; and thirdly, data collection as the main purpose of the project. The nature of the project, and the particular need for information will determine which approach is most appropriate in each case.

B Focusing data collection narrowly on chosen topics. Data collection is potentially a very time-consuming business, and the need for the data has to justify the trouble involved in collecting it. Because of budget restrictions, it is usually difficult to carry out regular surveys on all desirable indicators. This is particularly the case where data collection is to be a regular project exercise, rather than a one-off exercise at the beginning of the project. In order to maximise benefits to the project in question, data collection should focus narrowly on previously chosen topics.

C The use to which the data will be put. An early priority is to settle how the data will be written up, presented, and used, as this will determine how it is measured and collected. This is especially important when data collection is a regular and major part of project activities.

D The cost-effectiveness of data collection. Because much data becomes rapidly outdated, it has to be carefully considered how worthwhile it is to collect it. The expected use will give a guide to this: enormous expense could be justified for the collection of regular early-warning data, for example, if it could enable an NGO to respond to a disaster situation more rapidly than more informal and less expensive reporting would. If a disaster did not occur during the life-time of an early-warning project, then expensive data collection could perhaps still be justified if it were being regularly processed and written up for other purposes, such as to help build up a picture of the changing conditions for (agro)pastoralism in a particular area over a particular period of years. (But the processing and writing up of data is also very expensive, and this also should be taken into account; again, preferably at the beginning of the project.)

## 2.2.8 EXCHANGE OF INFORMATION ON (AGRO)PASTORALISM AND DEVELOPMENT

Since livestock-keeping is often carried out in areas remote from the centres of communication, people working on livestock programmes may at times feel very much out of touch with other similar programmes in different regions or countries. They may not even realise that other people in different parts of Africa may be living similar experiences and facing similar problems to their own. For this reason, the exchange of information on livestock projects is particularly important. Below are some source of information to watch out for. Many of these publications are sent free or at a subsidised rate to persons based in Africa; addresses of organisations have been included wherever possible.

There are a number of northern-based journals specifically concerned with pastoralist economy and society: the Overseas Development Institute produces its Pastoral Development Network, many of whose articles have been quoted throughout this study (address: ODI Agricultural Administration Unit, Regent's College, Inner Circle, Regent's Park, London NW1 4NS). The Commission on Nomadic Peoples, International Union of Anthropological and Ethnological Sciences (address: c/o Department of Anthropology, McGill University, 855 Sherbrooke Street West, Montreal, Quebec, Canada) issues its journal Nomadic Peoples. Paris University's Production Pastorale et Société has unfortunately had to stop publication due to lack of funds after number 20 issued in the spring of 1987; but ORSTOM's Working Group on Nomadic Societies and the State (Equipe Les Sociétés Nomades dans l'Etat) has recently issued its first publication entitled 'Nomadisme: mobilité et flexibilité' (address: ORSTOM, Département H, 213 rue La Fayette, 75480 Paris CEDEX 10, France). And OXFAM's Gender and Development Unit produces a regular series of newspacks, many of which contain information about (agro)pastoralist women (address: CADU, OXFAM, 274 Banbury Road, Oxford OX2 7DZ).

In addition, there are two new journals: the International Institute for Environment and Development's Haramata. Bulletin of the Drylands: People, Policies, Programmes (address: IIED, 3 Endsleigh Street, London WC1H 0DD). And OXFAM's Baobab. Journal of the Arid Lands Information Network (address: ALIN, OXFAM, 274 Banbury Road, Oxford OX2 7DZ).

Southern-based initiatives are scarcer (or less widely known?). A series of pamphlets prepared for training purposes by A. Maliki, Sociétés Pastorales Sahéliennes, has been published by ENDA-Tiers-Monde, Dakar, with funds from OXFAM-America. And the International Livestock Centre for Africa's African Livestock Policy Analysis Network issues regular papers (address: ALPAN, ILCA, P.O.Box 5689, Addis Ababa, Ethiopia).

A series of Workshops on Pastoral Development is being organised by OXFAM in Kenya. The first was held in Nairobi in June 87; there followed others in Maralal (Nov. 87), and in Loitokitok (May 88). In Jan 1989 there was a general meeting in Nairobi which covered in particular issues of land rights and access to

land. Then in Feb 1989 an Animal Health Services Workshop was held at Kositei, Baringo; and finally a workshop on pastoralist women is planned for May 1989 in Lodwar, Turkana. The seminars have been attended mainly by OXFAM Kenya staff, but also by members of other NGOs working with Kenyan pastoralists, and, in some cases, by OXFAM staff working with pastoralists in other parts of Africa. More seminars are being planned, and further information can be obtained from the Arid Lands Unit or the Kenya Desk at OXFAM House (address as above).

Though not an NGO initiative, it is worth mentioning the Workshop on Basic Animal Health (Santé Animale de Base), held in Bangui, Central African Republic, in Feb. 1988. It was organised by GTZ, the German Bilateral Aid Programme, and the Institut d'Etudes de Médecine Vétérinaire Tropicale, Paris, and followed on from two similar meetings held in Burundi in 1984 and in Malawi in 1985.

A Workshop on Pastoral Systems and Social Change was organised by ACORD in Mogadishu, Somalia, in Oct. 1988; several papers from this meeting have been quoted in this study.

And finally a Workshop on Pastoral Land Tenure Issues in East Africa was held in Arusha, Tanzania, in Dec. 1988. It was organised by J. Swift (Institute of Development Studies, Univ. of Sussex) and C. Lane (International Institute for Environment and Development). As a result, a 'pastoral committee' was set up, which can supply a report of the workshop, and further information about future seminars on a similar topic (address: c/o OXFAM, P.O. Box 40680, Nairobi, Kenya).

## CONCLUSIONS

In addition to the sector by sector discussion of issues at the end of each section in part two, following are some more general conclusions: about the relative weight given to each sector, about gaps in NGO programmes for livestock-keepers, and about the role of NGOs. Many of these points arise from the fact that the recent changes and trends in the social organisation of herding described in part one have not yet been taken sufficiently into account. The critical nature of the conclusions should not detract from the fact that many of the projects and programmes reviewed in this study have had considerable success in reaching and supporting livestock-keepers in their struggle to earn a living in these changing times.

A Urban ex-pastoralists. Given the increasingly large numbers of urban ex-pastoralists who have left their homelands to live in squatter settlements on the fringes of towns and cities, surprisingly little effort is being spent on this. People who have left the range because they did not have enough livestock to be viable herders, but who would like to return there, should be considered as prime targets for restocking and other livestock programmes in the pastoral zone. This study did not come across any restocking programme which considered this target group. Apart from the need for a range of urban income-generating and retraining programmes, there are also opportunities for livestock programmes on the urban peripheries which link up with the pastoral economies of the open rangelands: for example the marketing of livestock and of dairy produce to urban dwellers.

B Transfer of ownership of livestock. It is difficult to see what NGOs can do to reverse the trend of the transfer of ownership of livestock to settled farmers and to urban-based people. But again they could consider non-viable herders, who have been forced into being paid herdsmen through necessity, but who are aiming to become viable herders once again, as prime candidates for restocking and other livestock programmes. Also, it is of utmost importance for NGOs to be aware of this trend in planning and implementing their programmes, for it may affect their work fundamentally: aid agencies can expect very little cooperation over range management and other natural resource control programmes, if the beneficiaries are paid workers rather than herd owners, since such people are more concerned with their pay packet than with creating a healthy environment for other people's livestock.

C Land rights. Reinforcing the livestock sector, and restocking ex-herders in particular, assumes that there are enough natural resources to support this. Given that the open rangelands of Africa are diminishing on account of the constant turning over of pasture land to other uses, particularly crop farming and private and state ranching, NGOs need to accompany or even better to precede their livestock programmes with initiatives to preserve pasture land and pastoral water resources for the use of local livestock-keepers.

This does not mean carving up the common resources by registering

plots in the name of private individuals, because there is unlikely to be enough land to give to every member of the user community. In some cases, however, there may be strong arguments for handing particular parts of the common land over to private ownership, for example irrigable land in river valleys; but this should always be part of an overall strategy of rangeland use, which also addresses the needs of previous users who find themselves excluded from such lands. Land rights are not only crucial for semi-settled livestock-keepers, but also for the nomadic ones: a pastoralist family should not have to lose out on land rights just because it feels that a more sedentary life-style is incompatible with the proper management of their livestock.

Pressure therefore needs to be put on governments to allocate specific pieces of common land and particular water sources to groups of users; and to create and maintain community access tracks so that livestock may reach grazing areas where there is much cultivation. Unless this is done, there is no way of monitoring or controlling the disappearance of community rangelands, and the current successful restocking and other initiatives may ultimately fail through lack of control over the necessary natural resources. It is too late to tackle issues of land tenure and land use once they have been drawn to the attention of the project as a dispute involving project beneficiaries.

In the particular case of refugees from another country who do not have citizenship or any prospect of it in their country of residence, there may still be scope for negotiating some degree of land security with the host government.

D NGO cooperation. In order to push for vital issues such as the allocation of pasture land and water resources to groups of users, there is a need for cooperation between NGOs working in the same country or region, including of course the local NGOs. Much more emphasis needs to be put on the negotiation of such issues with governments before beginning implementation of the programme: if several NGOs can identify similar constraints, then this may well carry more weight in negotiations with government. The case for regional cooperation amongst NGOs, in particular indigenous ones, is made by Kabiru Kinyanjui (1988).

If an acceptable compromise cannot be reached, then NGOs should consider pulling out. For of what long-term use is it to develop resources for the owners of small herds, for example, if it is found that after the programme ends these resources pass into the control of other more influential users such as absentee stock owners and large private land owners?

E Exchange of information between NGOs on their strategies for (agro)pastoral development. There is a need for a greater sharing of information between NGOs about their programmes for pastoralists and agropastoralists. The impression gained from studying the various programmes is of people facing similar situations and problems in different and often remote parts of Africa, with often little or no contact with each other. Even at the level of the NGO headquarters, there seems to be little

policy discussion between NGOs on their strategies for (agro)pastoral development. Discussions remain largely confined within country borders (i.e. the country programme), rather than about a certain type of programme which is being carried out in different countries and regions. This is all understandable in terms of the organisation of agencies. It is nevertheless particularly regrettable for specialist subjects such as (agro)pastoral development, because of the relative lack of information about them. NGOs should be encouraged to formulate and update their policies for livestock-keepers, and to discuss them with other agencies.

OXFAM has begun to expand and coordinate its policies for (agro)pastoralists with the establishment of the Arid Lands Unit, much of whose work is related to this subject; with the organisation of a series of pastoralist seminars in Kenya (see section 2.2.8); and with the appointment of a Pastoral Development Adviser for Sudan, with responsibility for (agro)pastoral programmes throughout this vast country, from Kordofan to the Red Sea Hills to Equatoria. (The appointment of a West African Regional Pastoral Development Adviser was unfortunately short-lived, for upon the resignation of the first incumbent the post has been frozen.) But, even for OXFAM, this has only happened recently, and is only a beginning: many fundamental questions about the future of livestock-keeping remain unanswered, and there is as yet insufficient coordination with the work on (agro)pastoralism being undertaken by other NGOs.

LIST OF PROJECTS AND PROGRAMMES REFERRED TO, BY COUNTRY:

(\* indicates not an ACORD Consortium programme)

BURKINA FASO

'Projet Agro-Ecologie' (ORD Sahel, prov. Seno, Soum, Oudalan)  
GERMAN AGRO ACTION

'Programme Agro-Pastoral' (Kiembara, ORD Volta Noire) proposed  
ACORD

CHAD

'Ishtirak: Pastoral Associations in Batha' (Oum Hadjer, Batha  
Province) OXFAM

'Session de recyclage et formation des agents techniques de  
l'élevage' (N'Djaména, Ati and Oum Hadjer) OXFAM

'Projet Hadara. Connaissance de l'élevage du Kanem occidental  
et du Lac' OXFAM

ERITREA

'Veterinary Project' (all of Eritrea) WAR ON WANT and ERA

KENYA

'Workshop series on pastoralism' OXFAM

'Community Animal First Aid Worker Programme' (Nginyang  
Division, Baringo District) ITDG

'Group Ranch Education Programme' (Narok, Kajiado and Kwale  
Districts) NOVIB

'Restocking Projects' (Isiolo, Wajir, Turkana and Samburu  
Districts) OXFAM

'Drought contingency planning' (Turkana District) OXFAM

'Turkana water-harvesting project' OXFAM and ITDG

'Turkana browse and fodder project' OXFAM

'Livestock programme, Kamujine Farmers' Centre' (Lower Meru)  
ITDG\*

MALI

'Programme d'appui aux actions associatives et coopératives en  
Sixième et Septième Régions du Mali' (Timbuktu and Gao Regions)  
ACORD



'Barbe: création d'un village d'installation agricole de familles bellahs déplacées par la sécheresse dans la région de Mopti' SUCO, OXFAM AMERICA and UNAIS

'Associations d'Éleveurs' (Douentza, Mopti) OXFAM AMERICA and NEAR EAST FOUNDATION\*

'Extension of Sobo pastures' and 'Youvarou pastureland regeneration' (Central Mali) OXFAM AMERICA and VSF\*

'Animal fodder development project' (Douentza, Mopti) VSF\*

#### MAURITANIA

'Affolé project' OXFAM

#### NIGER

'Habbanae restocking project' (Abala, Filingué) OXFAM

'Embouche bovine' (Liboré, near Niamey) ACORD

#### SOMALIA

'Sablale Settlement Scheme' (Sablale District, Lower Shabeelle Region) ACORD

'Erosion Control Project' (Erigavo district) OXFAM

'Pastoralist programme' (location to be determined) proposed ACORD

'Nomadic Animal Health Auxiliaries Programme' of the Développement d'un Oasis en Somalie du Nord (Gardo District) ASSOCIATION FRANCAISE DES VOLONTAIRES DU PROGRES\*

#### SUDAN

'Qala en Nahal Refugee Settlement' (Gedaref District, Kassala Province) ACORD

'Red Sea Hills Programme' OXFAM

'Revitalising pastoralism' (Red Sea Province) OXFAM

'Red Sea Hills Programme' ACORD

'Restocking pastoralists' (Northern Kordofan) VSO\*

'Para-vet programme' (Terekeka District, Equatoria Region) OXFAM and ACCOMPLISH

#### UGANDA

'Resettlement programme' (Kapedo and Lolelia, Karimoja) OXFAM

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## IIED'S DRYLANDS PROGRAMME

The Drylands Programme at IIED was established in 1988 to promote sustainable rural development in Africa's arid and semi-arid regions. The Programme acts as a centre for research, information exchange and support to people and institutions working in dryland Africa.

The main fields of activity are:

- Networking between researchers, local organisations, development agents and policy makers. Networks help exchange ideas, information and techniques for longer term solutions for Africa's arid lands.
- Support to local organisations and researchers to encourage sharing of experience and ideas, capacity building and establishing collaborative links.
- Action-oriented research in the practice and policy of sustainable development in Africa's drylands, focusing on the variability of resources and incomes on which populations depend, development-oriented research methodologies, and natural resource management systems.

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ACORD is a broad-based international consortium of non-governmental organisations working together for long-term development in Africa. The consortium is independent of any political and religious affiliations. ACORD responds to development needs when collective action is deemed appropriate and where local agencies are not available. The consortium also assists in strengthening local agencies with the aim of achieving self-reliant development.

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