

Policy Series 11

***PASTORALISM AND
SUSTAINABLE LIVELIHOODS:
AN EMERGING AGENDA***

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MORTON, John and MEADOWS, Nicholas (2000) *Pastoralism and Sustainable Livelihoods: an Emerging Agenda*. Policy Series 11. Chatham, UK: Natural Resources Institute.

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This work has been funded by the Rural Livelihoods and Environment Division of the Department for International Development (DFID). However the Department for International Development can accept no responsibility for any information provided or views expressed.

Price £5.00

Copies of this book can be obtained by writing to NRI Catalogue Services, CAB International, Wallingford, Oxon OX10 8DE, UK. When ordering, please quote **EP 11**.

Natural Resources Institute

ISBN: 0 85954 525 3

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CONTENTS

	Preface	iv
	Executive summary	1
1	Introduction	4
2	Definitions of pastoralism	6
3	Pastoralism, poverty and marginality	8
4	Trends in funding and changes in perception	10
5	The SL approach and pastoralism	14
	Livestock and five types of capital	15
6	SLs pastoralism and livelihood diversity	20
	Local action and policy	26
7	Opportunities	30
	Institution building and civic education	31
	Human services	33
	Non-livestock savings	34
	Supporting non-traditional livelihood strategies	36
	Policy	38
8	Concluding remarks	40
	Bibliography	42
	Abbreviations	49
	Other titles in this series	50

PREFACE

This series is principally concerned with current policy issues of importance to developing countries but also covers those relevant to countries in transition. The focus is upon policies which affect the management of natural resources in support of sustainable livelihoods. Much of the series will be devoted to concerns affecting the livelihoods of poor people in rural areas, recognizing the linkages with non-natural resource-based livelihoods. It will also include the interests of the urban poor, where these are linked to the use of natural resources as part of livelihood strategies.

The series will take a holistic view and cover both the economic and social components affecting livelihoods, and associated factors notably with respect to health and education. The aim is to provide topical analyses which are based upon field research where appropriate, and which will inform development practitioners concerned with issues of poverty in development.

The series is timely, given the increasing focus upon poverty and poverty elimination in the agenda of the development community. It is also timely with respect to the growing body of recent work which seeks to replace earlier, simplistic structural adjustment programmes, with more flexible approaches to livelihoods, institutions and partnerships.

Policy analysis is often assumed to be the remit of social scientists alone. Whilst it is recognized that social science may play a pivotal role, interactions with other disciplines may also be critical in understanding and analysing policy issues of importance to the poor. The series therefore draws upon a wide range of social and natural scientific disciplines reflecting the resource base at the Natural Resources Institute.

EXECUTIVE SUMMARY

This publication highlights some issues arising for donor support to pastoralism and pastoralists from the recent elaboration of the sustainable livelihoods (SL) approach. It seeks to demonstrate that the SL approach presents new opportunities and demands a reconsideration of reasons why donor support to pastoralism has declined.

Definitions of pastoralism are discussed, leading to the conclusions that:

- the number of poor people whose self-identity is pastoralist and who can be helped through development based on an understanding of pastoralism is larger than strictly economic definitions imply; and
- non-livestock-based livelihoods may be important to pastoralists defined either economically or by self-identity.

Secondary data on the extent of pastoralism and the poverty, vulnerability and marginality of pastoralists are reviewed. Despite these, there has been a tendency for donor support to pastoralism to decline. Some of the reasons for this decline are identified as:

- a perceived lack of entry points given the technical strengths of pastoralist production systems, but also their weaknesses in the face of major policy, economic and demographic pressures; and
- the influential argument that greater opportunities for increasing livestock production lie in the sub-humid zone.

The first, and most important, argument need not apply if sectorally defined natural resources (NR) development is replaced by an SL approach.

The role of livestock within the SL framework's analysis of capital is discussed, and in particular the fact that livestock, through their accumulation and their transfer in traditional gift and loan customs, engender or embody social capital. Some practical conclusions are that:

- truly participatory development must not treat livestock solely as 'natural capital'; they also function as financial and social capital;
- an understanding of livestock as social capital must inform any attempts to programme for increased livelihood diversity among pastoralists;
- an understanding of social capital must inform attempts to introduce non-livestock-based forms of saving; and
- the evaluation of restocking projects, which attempt to bring destitute ex-pastoralists back into pastoralism, must take into account the social capital dimensions of livestock.

The great historic diversity of pastoralists' livelihoods, incorporating non-herding NR-based strategies and non-NR based strategies is reviewed, as are more recent pressures to diversify, which are discussed through the concepts of coping strategies, adaptive strategies and their relation to different capital assets. Analysis of livelihood diversity and livelihood diversification can and should be carried out using an SL approach, to identify potential interventions.

There is a broad consensus emerging of the need to strengthen pastoralist NR management by action at every level, from the community to that of international policy, and scope for innovative partnerships between pastoralists themselves, non-governmental organizations (NGOs), bilaterals such as the Department for International Development (DFID), multilaterals and governments, to make this a reality.

Some opportunities for action within the SL framework, beyond animal health and the now widely accepted need to strengthen local-level resource management, are discussed as follows:

- an approach to pastoral associations based on building social capital and overall empowerment, rather than the delivery of particular project objectives;
- a programme of civic education of pastoralists in their rights (and obligations) as citizens;
- an approach to human health based on general primary health principles, but taking into account the particular cost and coverage problems of pastoral populations, the possibility of targeting through epidemiology, and the possibility of closer integration of human and animal health services;
- an approach to education, child and adult, that genuinely improves pastoralists' capacity to choose between herding and non-herding livelihoods, and strengthens, rather than weakens, the ongoing links between the two;
- an agenda for research into the role of cash in pastoral livelihoods, without immediately prioritizing the intervention of pastoral banking;
- a facilitation of processes of crop-livestock integration where appropriate, using new insights into the diverse nature of this process; and
- assistance in the development of non-NR-based livelihoods that addresses constraints in human, physical and financial capital.

These are clearly only possibilities for intervention, which must be confirmed by holistic and participatory diagnosis of the constraints on pastoral livelihoods, but they demonstrate some of the ways in which the SL approach can re-invigorate pastoral development.

1

INTRODUCTION

The recent adoption by development agencies, in particular the UK's DFID, of the SL approach presents new opportunities for development planning with pastoralists; new, at least, when considered in an integrated manner and by donor and governmental bodies more used to traditional NR programming. The SL approach also demands a reconsideration of the reasons why the prospects for development with pastoralists were seen negatively in the early 1990s, which appears to have resulted in a decline of donor support to the sub-sector.

In particular, the SL approach could imply:

- integrated support for pastoralists in a variety of traditional (livestock-based) and non-traditional livelihood strategies;
- support for pastoralists' access to social capital through institution building and civic education;
- support for pastoralists' access to human capital through innovative delivery of human services;
- support for pastoralists' access to financial capital through innovative alternatives to livestock accumulation; and
- integration of local-level development with efforts to address the policy trends that have so adversely affected pastoralism.

After a brief overview of information on pastoralism and poverty, this publication will: (a) discuss competing definitions of pastoralism and their development implications; (b) review reasons for declining donor support

to pastoralism; (c) outline theoretical issues relevant to pastoralism arising from the SL literature; and (d) briefly review in more concrete terms the new opportunities presented.

This publication will largely take as given the scientific and social-scientific basis for viewing pastoralism as a sustainable form of land use, which can be further strengthened by development aid, and the possibilities of useful intervention in animal health, in order to concentrate on elements not reviewed elsewhere.

2

DEFINITIONS OF PASTORALISM

The definition of pastoralism most current in the development literature is that of Swift (1988), which reads in its essentials: ‘pastoral production systems are those in which 50% of gross household revenue (i.e. the total value of marketed production plus the estimated value of subsistence production consumed within the household) comes from livestock or livestock-related activities . . .’. This definition has the very important advantage of de-emphasizing nomadism. ‘Nomads’ – long used as a term for (some) pastoralists, focused on a particular strategy – mobility, not the production and consumption system within which it is used, and carried negative connotations of people moving for obscure psycho-cultural reasons, which needed to be overcome in the name of efficiency and civilization.

As Baxter (1994) points out, ‘pastoralism’ in this sense is an occupation, but occupations can also be vocations, even to those who cannot successfully follow them. Such a vocation can be a characteristic, even a definition, of an entire ethnic group, even if some of its members are not pastoralists by occupation:

. . . if I asked the question ‘What/who are the Boran?’, the answer was often just simply ‘People who love cattle’: and it did not matter if the respondent was stockless or the owner of large herds.

In this sense, the term ‘pastoralist’ has to be extended to individuals or households within groups holding such values who have been forced by destitution to depend on non-livestock livelihoods, but also wealthy households within such groups who have successfully diversified into trade, transport, agriculture or government employment. Arguably, it should also be extended to other ethnic groups who, while perhaps qualifying

economically as 'agro-pastoralist' (with more than 50% of household gross revenue coming from farming, and 10-50% from livestock), adhere to beliefs about the fundamental importance of livestock to their ways of life and self-perceptions, the Nuer and Dinka of southern Sudan being particularly important examples.

The issue of definitions has three important implications.

- It enlarges the number of poor people who can be considered pastoralists and who can be helped through development based on an understanding of pastoralism.
- Any attempt to suggest that non-livestock-based livelihoods are *by definition* insignificant to pastoralists has to be resisted. Even by an economic definition, pastoralists may derive 49% of gross revenue from non-livestock sources, and those sources can be made more sustainable and more productive. Under a wider 'vocational' or value-based definition, there is even more scope for support to non-livestock livelihoods for those who are voluntarily or involuntarily leaving pastoralism as an occupation.
- We see more clearly that livestock, and social ties engendered by livestock, are fundamental to value systems, and that truly participatory development must respect this and not treat livestock solely as 'natural capital'. This point is returned to below.

3

PASTORALISM, POVERTY AND MARGINALITY

There is general agreement that pastoralists (variously defined) are more likely than most other groups of rural people to be poor, and make up a small but significant proportion of the world's rural poor. Jazairy *et al.* (1992) include 'nomadic pastoralists' (together with smallholder farmers; the landless; indigenous peoples; small and artisanal fisherfolk; internally displaced people/refugees and female-headed households) as a 'functionally vulnerable group'; a group around whom 'development interventions have to be designed' in order to combat rural poverty. The definition of this group includes the criterion of not being settled in any specific area, which as discussed above is not generally considered necessary or desirable in defining pastoralism. Jazairy *et al.* (1992) include data for the following countries (omitting several others with significant pastoralist populations) (see Table 1).

Table 1 Data on nomadic pastoralists

Country	No. of nomadic pastoralists ('000)	Nomadic pastoralists as percentage of rural population (%)	Nomadic pastoralists as percentage of functionally vulnerable (%)
Algeria	402	2	9
Angola	208	3	4
Jordan	30	3	13
Kenya	954	5	7
Morocco	2029	16	22
Niger	1095	20	46
Pakistan	1904	2	4
Somalia	2639	57	64
Tunisia	72	2	5
Yemen	542	8	10

By their rather restrictive definition, Jazairy *et al.* (1992) estimate there to be 15 million nomadic pastoralists. This would make up a small proportion, 1.6%, of the International Fund for Agricultural Development's (IFAD's) official estimate of 939 million rural poor in developing countries. However, UNICEF/UNSO Project for Nomadic Pastoralists in Africa (NOPA) (1992) presents an estimate of 22.5 million of pastoralists in Africa alone, and Sandford (1976) in another widely quoted estimate, cited by Baxter (1994) as 'erring on the side of caution', estimates that there are 23 million or more pastoralists world wide. If such a figure had been valid in 1976, today's true estimate could be almost double that.

Although data are hard to come by, it can safely be assumed that many pastoralists are poor, in the sense of having low levels of household consumption or household imputed income. Some pastoralists and those recently forced out of pastoralism are poor in assets, while others could be judged wealthy in asset terms. What are more important here than definitions of poverty are the concepts of vulnerability and of marginality. Pastoralists, even those with significant current assets in the form of stock, are increasingly vulnerable to drought, as traditional systems of mobility based on communal land tenure break down through encroachment, privatization, sedentarization and the increase of conflict (Hendy and Morton, forthcoming). In addition, in most countries where they are found, pastoralists can be considered to be marginal and subject to further marginalization in several senses (Lesorogol, 1998): environmentally and economically, but also socio-culturally as members of non-mainstream cultures that may be ignored, misunderstood, attacked or patronized through the tourism industry; and politically in nearly every country. Such marginality can also be considered a form of 'social exclusion' that both feeds off and reinforces poverty and vulnerability.

4

TRENDS IN FUNDING AND CHANGES IN PERCEPTION

Despite the large numbers of pastoralists in the developing world, and their poverty and vulnerability, there is some evidence that donor funding for pastoralism declined in the 1980s and early 1990s. A review of World Bank projects (Pratt *et al.*, 1997) talks of a period of 'retrenchment' from 1980 to 1987, marked by 'general disenchantment with range-based projects'. For DFID, major bilateral projects dealing with pastoralism ending in the mid-1990s were not continued or replaced (although considerable expenditure on pastoral development through NGOs has continued). The ending of funding for the Overseas Development Institute (ODI) Pastoral Development Network in 1996 has been perceived outside DFID as a sign of decline in support for pastoralism. Additionally, DFID identified in 1994 the semi-arid production system, defined primarily as receiving between 400 mm and 1200 mm of rainfall per year, as one of its six priority systems for NR research, excluding areas beyond the 400 mm isohyet. This could be seen as both a symptom of declining interest in pastoralism and a further discouragement of initiatives in pastoralist areas.

Support for pastoralism has, paradoxically, been a victim both of the strengths of pastoralism and its weaknesses. The arguments of anthropologists and others that pastoralism is a rational and sustainable way of exploiting arid and semi-arid lands, backed by considerable indigenous knowledge and skill, have been widely and successfully disseminated. This has led to a generalized feeling that it is difficult for either scientific research or technical co-operation to improve significantly pastoralist production systems.

At the same time, two sorts of argument came into play on the weaknesses of pastoralism: arguments from policy and macro-economic

pressures and arguments from demography. Much recent writing on pastoralism has emphasized the adverse policy and economic environment; Hogg (1992) usefully summarizes this under expansion of cropping, livestock increase, insecurity, loss of power, market dependence and wealth differentiation. Misconceived land-tenure policies leading either to encroachment or division of the commons, and failure to support pastoralist livestock marketing could also be mentioned.

At the same time, the effects of rising human population have been dwelt on. Undoubtedly, advances in human health services over the whole of the century have reduced mortality and led to accelerating demographic growth. Even considering the many assaults that have been made on the 'Tragedy of the Commons' model, by which unlimited accumulation of cattle by each family leads to uncontrolled growth in livestock numbers, the effects of human population growth have to be taken seriously. It is a matter of debate, but also of geographical variation, whether average holdings of livestock per family have remained constant (leading to an increase in overall numbers and a presumption of environmental risk) or have declined (leading to inability to meet consumption needs from pastoralism) or some combination of the two. Meadows (1985), for example, projects a constantly growing human population in Turkana District, Kenya (95–100 000 in the 1960s, 170 000 in the 1980s, 240 000 in 2001) of whom only 90 000 people in each case can subsist from the range during severe droughts. The 'logical' conclusion is that the number of people who will need food relief in each successive cyclical drought will rise near-exponentially.

Cossins (1985) puts a demographic argument on the future of pastoralism eloquently, and with a corollary of particular interest to this publication.

The data we have on the future of pastoralism in East Africa is rather depressing. Even if we were to achieve the optimum in improvement of productivity, this is likely to be eroded within twenty years by human population growth rates. Pastoralists will be locked into a decreasing subsistence existence unless we find them something else to do. Irrigation projects are not, in my view, the answer, and the hunt must now begin as to what else pastoralists might do.

The report by Winrock International (1992) *Assessment of Animal Agriculture in Sub-Saharan Africa* incorporates implicitly or explicitly many of the above arguments, and in turn was influential in encouraging a lower priority for livestock development among pastoralists and in the drier regions.

The greatest opportunity for expanding agricultural production in sub-Saharan Africa lies in the medium-rainfall region – the subhumid agroecological zone and the wetter portion of the semi-arid zone.....Lower priority is given to the arid zone and the drier portions of the semi-arid zone. Little can be done to economically increase the production of vegetation on the rangelands. High priority should be given to sustaining production and to preventing degradation....Encouragement of outmigration of people to reduce human population pressures is desirable.

In terms of strategies for production systems, a number of possible interventions, including, but not limited to, research and development in livestock production and animal health, are proposed for mixed crop-livestock systems. A shorter list of institutional/policy interventions, plus recommendations to improve range monitoring through geographical information systems (GIS), and to establish paraveterinary services, is given for pastoral and agropastoral systems.

The environmental rationality of pastoralism based on mobility and communal tenure, 'other things being equal', has been persuasively demonstrated over the last two decades by scientific and social-scientific research (key references include Sandford 1983; Moris 1986; Behnke *et al.*, 1993; Behnke, 1994 and Scoones, 1995). Pathways from such an analysis towards practical development based on support to communal resource management have also been well described (see, for example, Scoones, 1995; NOPA, 1992; Pratt *et al.*, 1997). In general, both the intellectual case for pastoralism as a sustainable form of land use and the possibility of community-resource management at project level will be taken as given in the rest of this publication.

However, both policy pressures and demographic pressures have been perceived as placing insuperable obstacles in the way of pastoral development. This may well have been the case for sectorally-defined NR development, even that which recognizes the rationality of pastoralism and

builds on its strengths. It is not necessarily the case for development programming that follows an SL approach.

5

THE SL APPROACH AND PASTORALISM

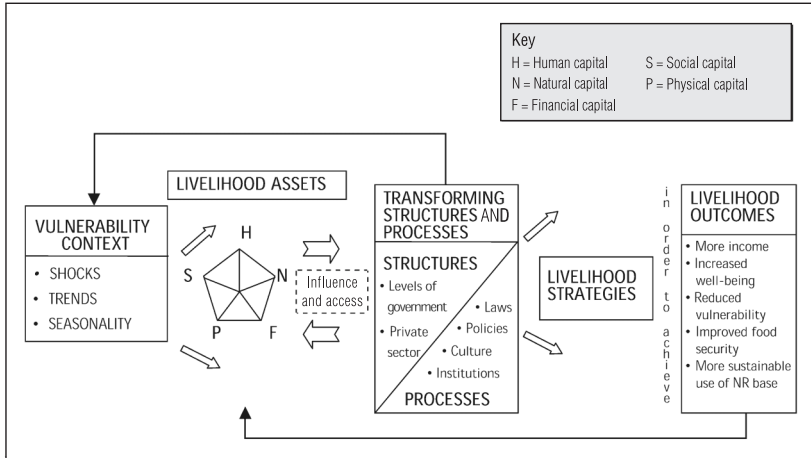
The SL approach, at least as advocated by DFID, is closely related to the SL framework, which is reproduced below in Figure 1. As DFID's Sustainable Livelihoods Guidance Sheets put it, the framework is intended to:

.... provide a way of thinking about the livelihoods of poor people that will stimulate debate and reflection, thereby improving performance in poverty reduction. In its simplest form, the framework views people as operating in a context of vulnerability. Within this context, they have access to certain assets or poverty reducing factors. These gain their meaning and value through the prevailing social, institutional and organizational environment. This environment also influences the livelihood strategies – ways of combining and using assets – that are open to people in pursuit of beneficial livelihood outcomes that meet their own livelihood objectives.

As an analytical model closely linked to development programming, the SL framework sheds new light on pastoralism in three interrelated ways:

- by conceptualizing the assets of the poor in terms of five categories of capital;
- by integrating the analysis of, and intervention in, NR-based and non-NR-based livelihoods; and
- by integrating action at the local (community) level and the level of policy.

In turn, by examining the applicability of the SL approach to pastoralism, some constructive criticisms of the approach as a whole are generated.



Source: <http://www.ids.susx.ac.uk:80/livelihoods/pdf/section2.pdf>

Figure 1 Sustainable livelihoods framework

LIVESTOCK AND FIVE TYPES OF CAPITAL

One of the distinguishing features of the SL approach is the emphasis on the analysis of assets through a framework of five types of capital: natural, human, financial, physical and social (Carney 1998; Scoones 1998). This has the advantages of allowing a holistic view of the assets of the poor, of starting from an analysis of strengths rather than needs, and of focusing on the institutions that allow the different types of capital to be substituted for, or traded off against, each other.

All these advantages apply to the analysis of pastoralism as much as to other social forms. Pastoralism raises questions of the way that the five types of capital are defined, but these can be resolved in a way consistent with the holism and participatory vision of the SL approach.

The central question is: what sort of capital are livestock? At one level, the question is ironic, as the very terms 'capital' and 'cattle' both derive from

the Latin *caput*, head (Spencer 1998, Asad 1979). At another level, the question allows us to grasp the multi-faceted nature of livestock as an enabling asset.

Livestock are clearly a form of natural capital ('the natural resource stocks from which resource flows useful for livelihoods are derived') in that they provide milk, meat, wool, hides and cash. But in most pastoralist (and smallholder mixed farming) production systems they also constitute, or at least act as, financial capital ('the financial resources which are available to people (whether savings, supplies of credit or regular remittances or pensions) and which provide them with different livelihood options'). Livestock of different species act as financial capital in different ways: stereotypically smallstock rapidly multiplying and acting as easily divisible spare change for everyday needs and small purchases; and cattle or camels as major items of investment, that in some societies are sold on a regular basis, in others only in emergencies.

More challengingly, livestock in many pastoralist societies can be regarded as constituting social capital, or at least embodying or engendering it. This is shown firstly by any number of rich descriptions by anthropologists of what livestock (usually cattle) mean to pastoralist peoples.

As the Somali proverb puts it: 'To be without livestock is slavery' or, as Boran say: 'A person without livestock does not have a life-spirit', that is, he or she might just as well be dead (Baxter, 1994).

Riesman expresses the multi-faceted nature of livestock as 'wealth'.

Cattle..... enable the FulBe to live as FulBe. Cattle can serve this function not primarily because they contribute to human survival – though they do – but because they are a form of wealth. We have to be very careful in reflecting on wealth not to assume that our appetite for consumer goods, heavily influenced by advertising and the mass media, is shared by everybody. Wealth is important in FulBe society not because it enables one to live better in terms of comfort, good food, fine clothes, etc., but because it enables one to accomplish all sorts of socially admired actions. It enables one to help relatives, to give lavish gifts to religious leaders and bards, to marry more women, and eventually to build up a following of people, which is the ultimate mark of social success. (Riesman, 1990).

Livestock are used in pastoralist societies to create social relations. They do this through a variety of institutions that vary considerably across pastoralist societies (see many anthropological accounts; and, within development literature, Toulmin, 1984, and Oba, 1997). Such institutions include: 'stock friendships' where stock are loaned between approximate equals; traditional herder contracts between a large herder and (typically) a younger man; traditional restocking loans after drought or more personalized destitution; and, perhaps pre-eminently, bridewealth and other marriage payments. The prevalence of these customs in many pastoral societies means that livestock are constantly transacted between households, and that they are subject to a network of claims, debts and use-rights rather than unequivocal property relations.

...to grow and prosper, stock must be set in motion, so most stock spend only a short period in the herd into which they were born. The social records of stock store information, not only about claims a person has in them, but also claims between people. (Broch-Due 1990)

Variation among pastoral societies cannot be ignored. Spencer (1998) shows how diverse the forms of stock distribution (and therefore the creation of social ties) through marriage payments are, distinguishing three major systems even among non-Muslim pastoralists of East Africa. What the systems have in common is that the accumulation and distribution of livestock are used to establish the *trustworthiness* of individuals or family units, and to create *trust* between individuals or families. Such social ties can extend well beyond the boundaries of what are seen as 'tribes' or 'ethnic groups'.

There is an ambiguity in the way 'social capital' has been used in recent development literature. On the one hand, the classic definition from political science: 'the features of social organization such as trust, norms and networks that can facilitate the efficiency of society by facilitating co-ordinated action' (Putnam, 1993), as used, for example, by Mearns (1996) and others, implies that social capital is a property to be ascribed to whole societies, translating as 'trust' or 'reciprocity'. The definition used in the SL literature: 'the social resources (networks, social claims, social relations, affiliations, associations) upon which people draw when pursuing different livelihood strategies requiring co-ordinated actions' (Scoones, 1998, see also the adaptation by Carney, 1998) implies much more that social capital

is a property of individuals and families, with possible referent in specific cultural contexts such as 'trustworthiness', 'status' or even 'honour'.

Whichever formulation of social capital is preferred, it is clear that in many pastoral societies it is so bound up with livestock accumulation and transactions in livestock that it is no exaggeration to say that livestock *are* social capital. This clearly varies between pastoral societies: among Muslim pastoralists the accumulation of stock may serve to establish status, but property rights in stock may be less complex. This may also go hand-in-hand with a more commercial attitude towards, and a longer history of, regular livestock marketing. The extent to which livestock are social capital also varies between species; it is most important (but by no means exclusively so) for cattle.

There is also the question that livestock, viewed either as financial capital or objects of economic value, or as social capital creating ties between households, can be converted through systems of marriage transactions into human capital or additional dependants (wives and, subsequently, children) for men. The implications of this are uncomfortable for anthropologists, who have attempted to downplay evidence from some (though by no means all) pastoral societies that bridewealth transactions are haggled over and viewed by participants as very much 'economic' in nature (Spencer, 1998), and for development workers, who will need to reconcile local institutions related so closely to social capital with the development of women's human capital beyond their role as dependent labour and mothers of children.

The practical implications of viewing (or admitting the possibility of viewing) livestock as social capital are diverse.

- It requires a reappraisal of the way livestock accumulation is viewed in development circles. The desire to defend pastoralists against a charge of irrational, at-all-costs accumulation has led to a denial of the 'non-economic' reasons for accumulation (see the continuing tendency to mention, and then to refute, Herskovits' (1926) theory of the 'cattle complex', in Sandford (1983) and many other works). Necessary as such a defence has been, it has led to a divorce between anthropological understandings of the social role of livestock and development practice. On the other hand, it must be understood that through loans, partnerships, herding contracts and marriage

transactions, the benefits of accumulation are spread far beyond the 'owner' of livestock.

- An understanding of livestock as social capital must inform any attempts to programme for increased livelihood diversity among pastoralists. Pastoralists adopting non-livestock livelihood strategies are likely to seek to retain some livestock, or at least some claims on the livestock of others, not only as a means of distributing economic risk, but also to maintain a stake in broader social networks.
- An understanding of social capital must inform attempts to introduce non-livestock-based forms of saving (see below). Social capital dimensions may either contribute to the reluctance of those who can accumulate to save or invest in banks, etc., or produce unintended disbenefits to the poor, who would otherwise have benefited from stock loans or other transfers.
- The evaluation of restocking projects, which attempt to bring destitute ex-pastoralists back into pastoralism, must take into account the social capital dimensions of livestock. Restocking projects may be successful as interventions to increase the access of the poor to social capital, even when they do not succeed in cost-effectively restoring households to economic self-sufficiency.

6

SLs, PASTORALISM AND LIVELIHOOD DIVERSITY

Pastoralist livestock production, when external factors allow it to operate successfully, is now realized to be sustainable within the definition of the SL framework: 'a livelihood is sustainable when it can cope with and recover from stresses and shocks, maintain or enhance its capabilities and assets, while not undermining the natural resource base' (Chambers and Conway, 1992). However, most, if not all pastoralist societies have also pursued other livelihood strategies, as complements to livestock production, or when livestock production has become overwhelmingly difficult for some or all of their members.

Many studies have examined livelihood diversity among settled farmers. Less systematic attention has been paid to the subject among pastoralists. This is partly due to the assumption that pastoralists, by definition, depend directly or indirectly on their livestock. As discussed above, this assumption is not strictly entailed either by economic definitions, still less by broader value-based definitions of pastoralism. Most discussions of non-livestock-related livelihoods in development literature concern colonial and post-colonial attempts at settlement to produce arable crops (often, to a greater or lesser degree coercive) or to 'involuntary' or opportunistic responses to drought.

However, there is ample evidence from anthropological writing and elsewhere that many pastoral societies pursue, and have pursued for some time, highly diversified livelihood strategies. Firstly, *within* livestock production, many pastoral societies are regularly involved in commercial sales of all species of livestock, and there is good evidence that in many cases this trade is of great antiquity (Kerven, 1992; Little, 1995). The sale of milk by pastoral societies, including pastoral women, is reported in

various areas (Coppock, 1994; Herren, 1990; Sikana *et al.*, 1993), and in Asia and small niches in Africa sales of wool and hair are important. Related, though now being replaced by motor transport, is the use of animals for commercial transport: the trading of salt on their own account, and caravanning, by Tuareg and other pastoralists in the Sahara. Guiding and raiding were also historically important livestock-based activities.

Many pastoral societies are involved heavily in cereal cultivation (reviewed by Fowler and Moorehead, 1992) or the tending of date palms or other oasis agriculture (Salzman, 1994; Ferry, 1998). While there is ample example of externally conceived irrigation schemes largely planned to settle pastoralists, and failing both economically and socially (Baxter, 1993; Hogg, 1983 and elsewhere), some accounts of schemes from Sudan, particularly New Halfa, show a more nuanced picture of pastoralist adaptation to irrigation (Sorbo, 1985). Although externally conceived attempts to organize fishing among pastoralists have acquired a bad reputation, in many parts of the world, notably the Sudanese and Eritrean coasts, Lake Turkana and Pakistani Baluchistan, pastoralists (by some definition) or other groups with whom they are in close exchange networks, fish and collect marine products. On the Red Sea Coast, as well as fresh fish, the following products have been made or collected either recently or during the 20th century: salt fish; preserved roes; pearls; sea slugs; trochus shells; and sea salt.

Wild product collection has probably always been more important than the literature on it suggests. Among the best-known and highest-value wild products are gums and resins collected widely throughout the Horn of Africa (Farah, 1994), but other tradable products are both the leaves (for matting) and the nuts (as vegetable ivory) of the doum palm (*Hyphaene thebaica*), *Cassia senna-mecca* collected as an internationally traded medicine, *Pennisetum spectabile* traded as a herb between Sudan and Egypt, and the wild gourd *Colocynthus caeruleus*. (Morton: field notes from the Red Sea Hills and Sudanese Government archives). The trade in charcoal and/or fuelwood from many pastoral areas is of course highly significant, as a contribution to household income, especially, but not solely, in droughts, as a contribution to urban energy use, and for its deleterious environmental effects.

Many pastoralists migrate seasonally as agricultural wage labour (see Hill, 1968), and there is a scattered literature on both non-farm rural

employment of pastoralists, for example in mining, and in urban migration of pastoralists, a classic example being the stevedoring trade in Port Sudan, which was dominated from the 1930s until comparatively recently by members of the traditionally pastoralist Beja ethnic group (see Lewis, 1962; Milne, 1974 and Morton, 1989). The employment of pastoralists or ex-pastoralists as night watchmen is widely reported in several countries. Among wealthy pastoralists, investment in shops and transport is common, and patterns of investment in urban property are also reported (Waldie, 1990).

There are or have been, therefore, a huge variety of non-livestock livelihood strategies practised by pastoralists in different areas. Quite apart from the issue of the pastoralists cultivating and the continuum between agro-pastoralism and pastoralism, there is evidence that in many pastoral societies these non-livestock livelihood strategies have long been a very important part of livelihoods (see Salzman, 1994 for Baluchistan; Morton, 1989 and other writings on Port Sudan and the Red Sea Hills). The SL literature can cast light on this 'diversity of diversities' in several ways (see Ellis 1998, a, b and c; 1999; and Titi and Singh 1995, as well as Scoones, 1998 and Carney, 1998):

- by distinguishing the state of livelihood diversity from the process of diversification;
- by introducing the distinction between coping strategies and adaptive strategies;
- by viewing diversification as something that can take place at individual, household or community level; and
- by analysing the interrelation between capital assets and diversification.

The historical record shows how in Asia, North Africa and West Africa, though less so in East Africa, pastoralists have traditionally pursued non-livestock strategies and enjoyed livelihood *diversity*. Over the 20th century and especially its three last decades, there have been accelerated processes of livelihood *diversification* among pastoralists virtually everywhere. Much of the diversification has been involuntary, driven by drought and the web of socio-economic and demographic trends, and

government policies, that increase vulnerability to drought (Hendy and Morton, forthcoming). This has resulted in sedentarization on large agricultural schemes, migration to the less favoured sectors of urban and rural labour markets, or pauperization in relief settlements.

However, some diversification takes place for other reasons. Conceptually, diversification can be seen as taking place either:

to meet consumption needs:

- when households have become destitute of livestock;
- when livestock production does not assure consumption in all seasons; and
- where more than one income source is desired to minimize risk;

or for reinvestment:

- to restore livestock holdings following a drought;
- to accumulate livestock as social or financial capital; or
- to accumulate other forms of capital.

The first, second and, to some extent, the fourth of these strategies are often referred to as 'coping strategies'. The large body of literature on 'coping strategies' is extremely useful, but often mislocates diversification processes as primarily (if not exclusively) involuntary. This has diverted attention from other processes more voluntary in nature and covered by the last of the above strategies, involving the adoption of activities complementary to pastoralism, the pursuit of education, and, for wealthier pastoralists, non-pastoral investment.

The issues around voluntary and involuntary livelihood diversification have received surprisingly little attention in the SL literature produced in the UK (although Hussein and Nelson, 1998, do discuss the issues). In any case, in the pastoralist context, the distinction between voluntary and involuntary diversification is not necessarily precise or easily definable. It is perhaps a more appropriate starting point to use the concept of 'adaptive strategies',

notably as used in a series of studies undertaken in the 1990s by the International Institute for Sustainable Development (Titi and Singh, 1995; Singh and Kalala, 1995 and others). Titi and Singh (1995) following the work of Susanna Davies, define coping strategies as ‘...poor people’s responses to declining food availability and entitlement in abnormal seasons or years’, characteristic of secure livelihood systems in periods of stress. Adaptive strategies are seen as more permanent, as responses to more permanent ecological and economic shifts, as more far-reaching in their implications for society, institutions, and their feedback into the ecosystem, but also as more voluntary at an individual or household level.

Titi and Singh see local adaptive strategies, together with contemporary (i.e. formal, Western) knowledge, and social and economic policy conditions, as key interactive elements in sustainable livelihood systems. They further discuss the differentiation of coping strategies, while at the same time noting that among pastoralists, particularly in the Sahel and the Horn of Africa, coping strategies have become adaptive strategies in a dynamic environment.

As is explicit in the SL framework, adaptive strategies can be pursued, and balanced against one another, at the levels of individual, household, community or even ethnic group. This allows the incorporation into SL analysis of strategies, such as education and urban migration, that take individual pastoralists far away from pastoralism.

Diversification strategies are pursued according to a household’s endowment of assets:

Assets both facilitate, and are facilitated by, diversification . . . the easier it is for individuals or families to convert one type of asset into another, the more options are opened up for livelihood generation and the greater the sustainability that is then made possible between activities. (Ellis, 1998a)

This draws attention to the differences in diversification strategies between poorer and wealthier households within an ethnic group or community, but also to the differences between communities and cultures based on the relative valuation of types of capital and the existence of institutions for converting one type of capital to another. On the first point, while variations abound, it is still probably a useful generalization to say that

poor pastoralists adopt strategies that risk severing their links with pastoralism altogether, while wealthier pastoralists build up a portfolio of livelihoods that complement pastoralism. Pastoralists in the middle of the wealth spectrum may adopt similar strategies to the poor, but in a way that does not sever their links with pastoralism, or remain relatively 'pure' pastoralists, i.e. specialized livestock producers.

On the second point, the variation between pastoral societies (referred to above) as to the extent to which livestock are seen as social or financial capital affects diversification. It is highly unlikely that a Mundari of southern Sudan would sell a bull in order to invest in maize seed or a small enterprise, whilst other groups with a more 'commoditized' approach may sell/trade their animals in an apparently more economically 'rational' manner. By the same token, diversification such as temporary wage labour may in some cases represent solely a means to enlarge one's herd considered mainly as social capital, while in another context it might be specifically to raise financial capital, either for investment outside the herd or for family consumption expenditure, purchase of building materials, etc.

The usefulness and potential of the SL approach in the field of diversification lies in a number of areas.

- Enabling analysis of whether capital accumulation is being undertaken, of what sort of capital, and why.
- Providing a model that incorporates the dynamics of shift between different forms of capital; of particular importance where it is unclear whether diversification is an end in itself (rather than a means to increase herd size and thus mainly social capital).
- Illuminating historically how various strategies have evolved and changed from 'coping' to 'adaptive', how diversification has developed, and why. This requires an examination of the economic and policy context, etc., over time, which is sadly lacking in much pastoralist literature.
- Moving toward a flexible definition of the size of the unit of analysis, which in turn implies the need for a deeper understanding of who may diversify, how and why.

- By analysing the various forms of capital, enabling development agencies to identify the strengths and weaknesses of the system(s) and identify potential interventions.

LOCAL ACTION AND POLICY

It is an important practical implication of the SL approach, and an assumed marker of its difference to earlier NR development approaches, that it should operate both at field and policy level with clear links between the two (Carney, 1998). This is entirely in accord with the analysis in so much development literature on pastoralism of the erosion of pastoralist viability by adverse policy trends, and the need for policy changes. This need has been noted in recent major multilateral documents on pastoralism. Pratt *et al.* (1997) identify macro-economic and sectoral pricing policies for 'review and perhaps amendment during project preparation'. NOPA (1992) dwells on specific state policies towards pastoralism (water policy, sedentarization, land reform) and also wider issues of equity and civil rights. Additional discussion of many of these issues is also provided by the Livestock, Environment and Development (LEAD) Initiative (1999, particularly under the location <http://www.fao.org/lead/toolbox/Grazing/PolPress.htm>).

We briefly review some of these policy issues.

Sedentarization has been favoured at various times by colonial and post-colonial governments, for a variety of reasons; a sedentary population is seen as easier to control and tax by the state, easier to deliver services to, and simply more 'modern'. Behind this lies a lack of recognition that mobility is a necessary and rational response to environmental conditions, and not merely the product of cultural wanderlust. Sedentarization policies, which included the use of irrigation schemes to settle pastoralists, are now rarer, or at least less explicit, than they were in the 1960s and 1970s. Generally pastoralists have reacted at best opportunistically to state-sponsored sedentarization, continuing to keep or reinvesting in livestock, and such policies have not delivered either welfare or environmental benefits. It is important that there should be no return to policies that expressly promote the sedentarization of pastoralists: the development of alternative models for service delivery to mobile populations (see below) will be an important part of this. At the same time there are spontaneous processes of sedentarization (for example, to gain access to different

economic opportunities, or where land becomes available year round by tsetse clearance). Different policies will be needed to manage these processes to enhance livelihoods and equity while maintaining environmental sustainability.

A great array of *land tenure policies* have eroded local NR management, environmental sustainability and pastoralist livelihoods. These have included bureaucratic state control of rangeland, favouring encroachment on rangeland by external commercial interests, and parcelling rangeland into individual or small group ownership. Such policies have variously decreased the absolute area available to pastoralists, failed to provide the scale and internal diversity of management units necessary for pastoralism, or unintentionally replaced functioning local management systems with an open-access free-for-all. Alternatives to such policies, which revolve around strengthening and devolving management to local institutions, are now documented (see below and Lane and Moorehead, 1995; Swift, 1995; Shanmugaratnam *et al.*, 1992).

Water policies for pastoral areas, in particular public provision of boreholes or subsidies for private boreholes, have become increasingly controversial. The technical arguments around borehole provision are complex (see Sandford, 1983), but it is clear that borehole siting can have profound unintended consequences on grazing resource management and resource use. It is important to move away from subsidies (of operating costs in nearly all circumstances, and capital costs in many) and to site boreholes through careful processes of participatory planning.

The policy issues around *pricing* of pastoralist products and inputs are numerous and complex. It is clear that macro-economic policy choices such as currency devaluation, which are not made primarily to influence pastoralism or the livestock sector, will affect pastoral systems in complex ways (Moll and Heerinck, 1998). At the same time, policies on tariffs, price controls and subsidies, will have huge and often unintended effects on pastoralists' livelihoods and the rangeland environment. Generally speaking, subsidies on inputs are likely to be a poor way of enhancing the livelihoods of ordinary or poorer pastoralists. The concept of safety nets against negative affects of macro-economic policies needs to be applied to poor pastoralists as much as to other categories of the poor (NOPA 1992).

NOPA (1992) argues for the rethinking of aspects of national and international policy that go far beyond pastoralism, while profoundly affecting it; redefinition of the roles and functions of the state, international equity, stability (in the face of armed conflict), legal and administrative frameworks (that are transparent and accessible to pastoralists), and *civil rights*. As well as the universal human rights, specific rights for pastoralists need to be recognized and incorporated into development planning: rights to cultural survival, to priority access to traditional territories, and to economic development that accords with pastoralist needs and aspirations. The idea of a social contract against famine between pastoralists and the state also fits here (Swift, forthcoming)

A different angle on the question of policy can be seen from two very different pieces on pastoralists and NGOs, both published in 1992. Hogg (1992) reviews three major pastoralist projects in Ethiopia and Kenya. He sees a variety of problems with the NGO approach in general, of which two are poor relations with government, and 'the inappropriateness of the small-scale approach':

...many of the problems facing pastoral peoples and areas are regional and national, and cannot be resolved by local community interventions. A criticism of the NGO approach is that it is so small-scale as to be irrelevant given the larger context of pastoralism. If empowerment as a process is to stand any realistic chance of helping local communities it has to be pitched at a level which provides real voice to local demands....NGOs have to be prepared to work at both micro- and macro-levels and trace the linkages between the two.

Hogg notes with approval the Oxfam-supported pastoral steering committee in Kenya, while also noting its need for better linkages with government and large donors. Cullis (1992) also reviews the macro-level and policy pressures upon pastoralism, the challenge of new research to the 'old orthodoxy' which promotes such policies, and the need for dissemination of those research findings to policy makers. He sets out an agenda for Northern NGOs to assist pastoral peoples and pastoral organizations through advocacy work.

There is then a broad consensus emerging, not only of the essentially rational nature of pastoralist natural resource management, but of the

need to strengthen it by action at every level from the community to that of international policy. There is clearly scope for innovative partnerships between pastoralists themselves, NGOs, bilaterals such as DFID, multilaterals and governments to make this a reality.

7

OPPORTUNITIES

This section will review in more concrete terms some new opportunities presented by the SL approach for development intervention, under four headings.

- Institution-building and civic education.
- Human services.
- Non-livestock savings.
- Supporting non-traditional livelihood strategies.

These interventions are not new in an absolute sense; what is new is the opportunity to carry them out in response to a holistic analysis of pastoralism and in co-ordination with more mainstream NR interventions such as animal health, livestock marketing and water development. The latter (and technical range-management interventions) are not further reviewed here, except in their institutional aspects. Clearly the arguments for and against these interventions are complex and already reviewed elsewhere.

There is a shortage of information on recent, innovative experiences in the areas reviewed. What is drawn upon in this section is primarily a few key references on pastoralism (NOPA, 1992; Oxy, 1989; Pratt *et al.*, 1997) with reference to some ongoing research, and to some wider policy perspectives (particularly Wolmer, 1997; Ellis, 1999).

INSTITUTION BUILDING AND CIVIC EDUCATION

Building pastoral associations of various sorts can now be seen as a mainstream pastoralist development activity. This is thanks in part to the advocacy of the World Bank based on experiences in the Sahel (Shanmugaratnam *et al.*, 1992, and, more cautiously, Pratt *et al.*, 1997); articles by Swift (1995) and Sylla (1995) have also been influential. The approach has also been popular with NGOs, for example in Oxfam's Wajir Project.

Pastoral associations can have a variety of functions: natural resource management, service delivery, livestock marketing and advocacy. While the possibility of pastoral associations stimulated or brought into being through projects serving the first three functions can now be accepted, there is a broader set of questions concerning pastoral associations' role in advocacy, their post-project sustainability and the extent to which they really contribute to building social capital. Some of these questions emerge from recent studies carried out under a DFID-funded project by IIED (Hesse *et al.*, 1998; Toure, 1998a, b and c).

- Can pastoral associations gain the right to represent pastoralism over a broad spectrum of issues, not merely those prescribed in project design?
- Can there be a real national-level policy shift to empower pastoral associations in their various activities, and in future activities they themselves choose to take on?
- How can pastoral associations be institutionally strengthened, and what time scale of external support is necessary?
- How can pastoral associations evolve away from a role as seekers of donor funds for micro-projects, towards initiating their own actions and taking a long-term perspective?
- How can pastoral associations become financially sustainable?
- How can they focus their activities and avoid activities for which they are technically unqualified?

- What is the balance between traditionalism and relying on traditional leaders and (a) equity, and (b) harnessing the energies of a new, innovation-minded, class of leaders?

In the end, many of these questions come down to a difference between an approach that sees pastoral associations as transmission belts for the delivery of services and implementation of policies from above, often with short-term project objectives, and an approach which seeks to empower pastoralists, a process that is inherently unpredictable. One concept useful to those taking the latter approach is that of *civic education* (NOPA, 1992). As this radical concept has not, to the authors' knowledge, been operationalized in development projects, it is worth quoting the relevant passages at length.

(Pastoralists are often) ignorant of legal procedures concerning administrative matters, the exercise of justice, regulations concerning animal markets, rules concerning forestry and natural resource use, the management of credit schemes, banking and insurance mechanisms. In short, they have limited knowledge of their general rights and obligations as citizens. Such ignorance renders pastoralists helpless in the face of potential manipulation and exploitation, leads to powerlessness in the assertion of their rights, and reduces the general productivity of their economy.

An important component of any strategy aimed at empowering pastoralists and favoring their full participation in development activities would be the creation of appropriate programs of civic education for pastoralists. The basic aims would be to inform pastoralists of civic affairs and to establish processes of conscientization which would allow them to grasp and act upon their full rights and obligations as citizens in a modern society. Civic education could be transmitted through functional literacy programs, radio broadcasts, and other forms of adult education, and could form the accompaniment to the establishment of pastoral associations. The role of local chiefs should also be acknowledged and their leadership capabilities enhanced. Their education, information and sensitization should be considered crucial for generating awareness and responsiveness. At the level of pastoral communities, paralegals should be trained to facilitate and improve the relationships between members of the associations and the administration.

The idea of civic education for pastoralists entails building not only the social capital of pastoralists but also their *political capital*, the absence of which in the current SL framework has been mentioned by various commentators. Civic education could form a useful link between agendas based on NR management and pastoral associations and those based on human services, and more broadly between SL and rights-based approaches.

HUMAN SERVICES

It is a principle of the SL approach that constraints in the access of pastoralists to human capital (health and knowledge) must be assessed, and acted upon if they are significant. Pastoralists have particular patterns of health problems (see NOPA, 1992 for a brief summary, see also Swift and Toulmin, 1987, for an annotated bibliography), and in general have low levels of literacy and formal education (which is not to deny the enormous human capital constituted by indigenous environmental knowledge, etc.). Access to both health and education has been severely limited by the inability or unwillingness of government health services to serve populations that are dispersed, mobile or both; in the case of health and education services the fact that pastoralists are frequently linguistic minorities and culturally marginalized has been an extra factor limiting useful access to these services.

In many ways the agenda for improving human services among pastoralists is similar to that elsewhere: increased use of paraprofessionals, and association of service delivery with participatory local bodies. Certain additional factors come into play for pastoralists.

- In view of the problems of mobility and low population density, there will be a need both for innovation in organizing service delivery and a concern for cost-effectiveness if delivery is to be sustainable. Sandford (1978) surveys the cost-effectiveness of different delivery models. Mobile models for education – ‘tent schools’ – may be less feasible under many migration regimes than has previously been assumed. NOPA (1992) suggests using the tools of epidemiology better to target health interventions.
- The possibility of integrating human and animal health services should be thoroughly explored.

Education needs to be seen as a means of building human capital for sustainable livelihoods (as well as building social and political capital as discussed above), and not as a means of sedentarization or cultural assimilation. This should be the objective to which mobile schools, adult education and boarding schools, in various combinations, are means. NOFA (1992) supports the use of boarding schools under the following provisos:

- education is part of a developmental package with parental participation;
- it does not disrupt pastoral values and lifestyle;
- curricula are relevant to the pastoral economy; and
- training cycles are suitable to pastoral seasonality.

However, one should modify this agenda in the knowledge that many pastoralists (in a broad definition) will wish or need to pursue non-herding or non-NR-based livelihood strategies. To the radical (and as yet unfulfilled) agenda set out by NOFA is added one even more challenging: to develop pastoralist education in that it genuinely improves pastoralists' capacity to choose between herding and non-herding livelihoods, and strengthens, rather than weakens, the ongoing links between the two.

NON-LIVESTOCK SAVINGS

The idea of encouraging pastoralists to invest in forms of financial capital other than livestock has gained prominence recently, partly because it features prominently among the recommendations produced by the International Livestock Research Institute (ILRI's) major research programme on pastoralists (Coppock 1994). Coppock's recommendation for a 'keystone' intervention is: 'Risk management of cattle assets including alternative investment for wealthy and middle-class households in the form of simple saving accounts in banks'. Coppock enlarges on this concept at some length, arguing amongst other things that there would be positive environmental side-effects in the limited de-stocking he proposes, reduction in demand for forage at the early stage of drought, conservation of the monetary value of cattle, and a post-drought pool of cash for re-stocking. His basic assumption is that sale of unproductive male cattle

would provide the cash base. He notes, however, the twin requirements of ‘. . . not only getting the pastoralists interested in banking, but also devising a system that allows people in remote areas easy access to their money.’

Coppock’s work is highly detailed and includes sophisticated economic comparisons with the ‘orthodox’ strategy of saving via animal ownership. Although Coppock notes some barriers to implementation of the concept, we consider it merits a greater degree of scepticism. For many, possibly most, pastoralist societies, the concept of non-livestock/cash savings appears almost oxymoronic. This is particularly true amongst groups which ascribe high social-capital value to herd size. In these instances ‘saving’ of cash (or tradable smallstock) is generally a means to the end of cattle/camel purchase.

Nevertheless, as pastoralist societies have been incorporated into cash/market systems, the role of financial capital in the pastoral portfolio has inevitably increased. The increasing involvement of pastoral women in sales of milk and crops for cash (Sikana *et al.*, 1992; Smith, 1998; Meadows, 1998) is one aspect of this. However, involvement in the market system does not necessarily imply saving as such, beyond accumulation to acquire a particular purchase. In addition, several pastoralist groups are known to have easily convertible reserves (besides livestock), such as jewellery, which plays an important role in marriage ceremonies, but which can also be sold as a drought-coping strategy.

There is still a shortage of literature and experience on the subject. Oxy (1989), in her survey of NGO interventions, makes no mention of any attempts to promote saving. It is interesting to note that even where relatively sophisticated pastoralist associations have been established (perhaps most notably by OXFAM UK/I) cash savings have not been implemented, or even prioritized.

Risking over-generalization, the barriers confronting pastoralist cash saving appear enormous. These include the following.

- The status, in some societies at least, of livestock as social capital, either conferring status on the owner by its accumulation, or enhancing his network of obligations through gifts, loans, etc.

- The simple fact of inflation in most of the countries under consideration, making it doubtful whether financial savings can outperform livestock accumulation in the long run, even taking periodic drought into consideration.
- The possible disbenefits to poorer pastoralists if wealthier herd-owners were persuaded to save in the form of cash, rather than put out animals as gifts, traditional loans, etc.
- The Islamic ban on interest.
- The existence of 'traditional' forms of savings, such as the purchase of jewellery.
- The practical difficulties of banking in remote and often insecure areas.
- Inexperience of bank staff in dealing with pastoralists, together with high illiteracy rates and a likely (though not certain) mutual distrust.
- Experience of corruption being widespread; an unwillingness to deal with any 'officialdom.'

The extent of cash capital, how acquired and how used, should undoubtedly be explored as part of the integrated SL approach. However, given the obstacles it is difficult to argue that the promotion of pastoral banking *per se* should be a priority in SL work.

SUPPORTING NON-TRADITIONAL LIVELIHOOD STRATEGIES

Oxby (1989) reviews NGO projects aiming to retrain herders as farmers (which of course has also been the subject of many large donor and governmental projects) or to retrain ex-herders in town. She identifies as major issues for the former:

- settlers' continued interest in livestock as (to use SL terminology) natural, financial and social capital;
- restricted land rights for settlers;

- conversion to agriculture as a short-term crisis response or coping strategy rather than an adaptive strategy;
- need for early inclusion of livestock in project planning; and
- problems of overgrazing around the scheme area.

The record of training pastoralists in cultivation in order to sedentarize them, and/or as a response to drought and its aftermath has generally been poor. However, there are spontaneous processes of sedentarization, diversification into agriculture, and integration (at various levels) of crop and livestock production taking place across the pastoralist world. There is scope for projects that work from the basis of increasing pastoralists' options by providing information and opportunities for cultivation. Such projects should be guided by the emerging findings of an ongoing research project at the Institute for Development Studies (IDS) (see Wolmer, 1997):

- that there is no single necessary route to 'crop-livestock integration', rather a number of different trajectories involving different crop and livestock production strategies and relations between them at household, community and inter-community levels; and
- that the role of institutions in governing access to resources (land tenure, manure-crop residue exchange customs, labour relationships) is both crucial and specific to times, places and social categories.

The findings of Morton *et al.* (1997), that information on livestock production will be important for sedentarizing farmers, but that different households will adopt new techniques at different times, will also be relevant.

Turning to training ex-pastoralists in town, Oxby sees both a need and an opportunity for this type of work, but is also cautious on the priority that should be given to such retraining relative to support for livestock production. She also found few NGO projects to review under this heading, although ex-pastoralists have also benefited under more general urban income-generation projects. However, since Oxby's paper was published, there has been increased interest at a policy level in promoting non-herding livelihoods, largely driven by perceptions of inexorable human

population increase on the rangelands (see Sandford, 1995). It is now necessary to examine how such an agenda could be operationalized.

Oxby does not mention possibilities of promoting non-herding livelihood strategies in the pastoral areas themselves. Craft projects would need very careful design and appraisal, but there may also be opportunities, at least at the margins, for increasing pastoralist involvement in the lucrative trade and transport sectors. There is also the possibility of promoting the collection and trade of desert products, as has been done with gums and resins by the NGO SALTICK in Kenya under DFID funding. While strictly speaking NR-based, this is likely to be a supplement rather than a substantial replacement for herding, and shares some features with non-NR-based strategies. In the case of SALTICK, the project fell foul of a highly fluctuating world market in gum arabic dominated by a single producing country, Sudan.

Projects to promote non-NR-based livelihoods need to be based on a realistic appraisal of current livelihood strategies within rural areas (e.g. craft production, involvement in trade and in the transport sector) and in towns. In terms of the SL framework this should include an analysis of the motives for non-NR-based livelihood strategies; risk spreading and different forms of accumulation, and the structures and process which affect non-NR-based strategies.

Such projects need to recognize the human capital, physical capital and financial capital dimensions of livelihood diversification. In other words, as appropriate, they should address the training, infrastructural and credit constraints on diversification (see also Ellis, 1999). They should also:

- be integrated with child and adult educational development projects and policies; and
- to the extent that they promote specific livelihoods, be based on a sound market analysis for the good or service promoted.

POLICY

The above discussion shows some of the opportunities for SL-inspired interventions, generally at the project or programme level. As already

discussed, the SL approach should be one that also operates at a high policy level, and is vital that donors and governments continue to consider:

- land tenure for pastoralists, using the new insights from research and project experience on local resource management;
- the effects (positive and negative) on pastoralists of macro-economic and sectoral policy, including price liberalization, the differentiation of those effects between pastoralists of different wealth strata, and the arguments for 'safety nets'; and
- an expanded conception of civil and human rights for pastoralists, including rights to security, accessible government, cultural survival, land and appropriate development, and the incorporation of such rights into development policy.

CONCLUDING REMARKS

This publication has been intended to stimulate thought, rather than to produce concrete recommendations. Its main conclusion is that, because the SL approach comprises so much more than NR development, it creates more opportunities, and therefore more arguments, for effective development with pastoralists. Donors should not allow either pessimism about the external pressures on pastoralism, nor a belief in the technical self-sufficiency of pastoralism, to stand in the way of new development interventions for and with this significant category of the poor.

General lessons from a theoretical review of the SL framework and how it relates to pastoralists could be summarized as follows:

- the number of poor people whose self-identity is pastoralist and who can be helped through development based on an understanding of pastoralism is larger than strictly economic definitions imply;
- non-livestock-based livelihoods may be important to pastoralists defined either economically or by self-identity;
- truly participatory development must not treat livestock solely as 'natural capital'; it also functions as financial and social capital;
- an understanding of livestock as social capital must inform any attempts to programme for increased livelihood diversity among pastoralists;
- an understanding of social capital must inform attempts to introduce non-livestock-based forms of saving;

- the evaluation of restocking projects, which attempt to bring destitute ex-pastoralists back into pastoralism, must take into account the social capital dimensions of livestock; and
- analysis of livelihood diversity and livelihood diversification can and should be carried out using an SL approach based on the links between different types of asset and adaptive and coping strategies, and their integration at individual, household and community level, to identify potential interventions.

There is a broad consensus emerging of the need to strengthen pastoralist NR management by action at every level from the community to that of international policy, and scope for innovative partnerships between pastoralists themselves, NGOs, bilaterals such as DFID, multilaterals and governments, to make this a reality. Some of the most relevant higher-level policy issues are those of land tenure, the effects of macro-economic policy on pastoralists, and an expanded concept of pastoralist civil rights.

Some opportunities for action within the SL framework, beyond animal health and the now widely accepted need to strengthen local-level resource management, are as follows:

- an approach to pastoral associations based on building social capital and overall empowerment, rather than the delivery of particular project objectives;
- a programme of civic education of pastoralists in their rights (and obligations) as citizens;
- an approach to human health based on general primary health principles, but taking into account the particular cost and coverage problems of pastoral populations, the possibility of targeting through epidemiology, and the possibility of closer integration of human and animal health services;
- an approach to education, child and adult, that genuinely improves pastoralists' capacity to choose between herding and non-herding livelihoods, and strengthens, rather than weakens, the ongoing links between the two;

- an agenda for research into the role of cash in pastoral livelihoods, without immediately prioritizing the problematic intervention of pastoral banking;
- a facilitation of processes of crop-livestock integration where appropriate, using new insights into the diverse nature of this process; and
- assistance in the development of non-NR-based livelihoods that addresses constraints in human, physical and financial capital.

These are clearly only possibilities for intervention that must be confirmed by holistic and participatory diagnosis of the constraints on pastoral livelihoods, but they demonstrate some of the ways in which the SL approach can re-invigorate pastoral development.

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ABBREVIATIONS

DFID	Department for International Development
GIS	geographical information systems
IDS	Institute for Development Studies
IFAD	International Fund for Agricultural Development

ILRI	International Livestock Research Institute
LEAD	Livestock, Environment and Development
NGO	non-governmental organization
NOPA	UNICEF/UNSO Project for Nomadic Pastoralists in Africa
NR	natural resource/s
ODI	Overseas Development Institute
SL	sustainable livelihoods

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