

**Resource Alienation,
Militarisation and Development**
Case Studies from East African Drylands

Edited by
Mustafa Babiker

**Proceedings of the Regional Workshops
on East African Drylands
(Khartoum and Addis Ababa)**



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in Eastern and Southern Africa (OSSREA)**

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Preface

The East African Drylands Research Programme is a collaborative venture between the Centre for Development Studies (CDS), University of Bergen, Norway, and the Organization for Social Science Research in Eastern and Southern Africa (OSSREA), Addis Ababa, Ethiopia. The programme involves researchers from Ethiopia, Norway, Sudan, Tanzania and Uganda. Its major objective is to produce development-relevant information on East African drylands. Taking a broad view rather concentrating on the issue of crisis management, the programme focuses on the spatial and temporal dimensions of resource management. A number of workshops had been held dealing with the issue of human adaptations in East African drylands.

This is the third of the proceedings published within the East African Drylands programme. The first one, *Managing Scarcity: Human adaptation in East African Drylands* (edited by Abdel Ghaffar M. Ahmed and Hassan A. Abdel Ati) was based on a workshop in Addis Ababa (24-26 August 1995), and was published in 1996. The second one, *Pastoralism and Environment: Experiences from the Greater Horn of Africa* (edited by Leif Manger and Abdel Ghaffar M. Ahmed) was based on two workshops, one in Addis Ababa (10-14 November 1997), and another one in Jinja, Uganda (8-10 March 1998). In the intervening period, we have had two workshops, one in Khartoum (8-9 December 1998), and another one in Addis Ababa (9-11 March 2000). The papers presented in the proceedings have all been read and discussed in one of those two last workshops.

Many of the authors have contributed papers in all the workshops; each paper, therefore, represents a step forward based on earlier papers and leading to the next one. However, each paper also deals with a particular issue, and should be read as an independent contribution. Hence, although it is important to be aware of the internal dynamics of the drylands programme workshops as a context for generating themes, we also hope that the papers in themselves reflect significant progress in our understanding of the dynamics of human adaptations in East African drylands.

Leif Manger
Abdel Ghaffar M. Ahmed

FROM DECLINE TO SURVIVAL IN EAST AFRICAN DRYLANDS: AN INTRODUCTION

Mustafa Babiker

The driving force behind much research on East African dryland pastoralism is a set of powerful, widely perceived and, at times, emotional images about its future. Many anthropologists, sympathetic to pastoral peoples, have repeatedly warned of the approaching end of pastoralism. In most cases, any trend towards the integration of herding with cultivation is interpreted as a loss of resources necessary for pastoral survival. However, such interpretations and the associated worries about the future of pastoralism are, of course, not without reason. In the Sudan, for example, the 1944 Soil Conservation Committee had recommended that where pastoralists are in direct competition for land with cultivators, it should be the policy that the rights of the cultivator be considered paramount because his crops yield a bigger return per unit area (El Tayeb 1985, 35). This view echoes Sir Charles Eliot's, then High Commissioner to the East African Protectorate, who, more than 50 years earlier, strongly asserted the demise of pastoral people in Eastern Africa. He predicted that their way of life would not be sustained in the face of the advances of Western ideas and technologies; the future lay with the cultivator, not with the herder (Anderson 1993, 121).

Moreover, worries about the future of pastoralism were further consolidated by the observed tendency in post-colonial development policies that invariably displayed a strong bias in favour of arable cropping in terms of jurisdictional, technical and economic assistance. The official engrossment with the question of how to restrict pastoral mobility and the associated settlement plans, added a further dimension to the concern about the future of pastoralism. The implications of such developments for the 'traditional' systems of pastoral production and resource management were posited as one of crisis: a 'crisis in survival'. The recurrence of droughts and famines in recent decades has lent great support to the prediction that pastoralism is on the verge of extinction (Baker 1977; Carr 1977; Morton 1988, 1993).

This introductory chapter attempts to contribute to the ongoing effort (Anderson 1993; Niemeijer 1996) to obliterate perhaps the two major hurdles in the progress of our understanding of the dynamics of human adaptation in East African drylands. These are the persistence of 'crisis scenarios' and the insistence on a 'herder/farmer' dichotomy when the future of pastoralism is problematic in the context of a resource competition and conflict. Thus, the following section of the paper questions the methodological foundations of the 'crisis scenarios'. The section that follows examines the relationship between farming and herding and shows how it is far more complex to be captured in a simple 'herder/farmer' dichotomy. The final section provides some concluding remarks and their implications for future research and policy.

1. THE CRISIS SCENARIOS

In recent decades, increasingly optimistic scenarios for the future of pastoralism began to emerge. This is especially true in the case of research inspired by the revival of 'actor-oriented' perspectives and the academic recognition of the so-called 'indigenous knowledge' systems as opposed to the different brands of structuralism, which dominated research in the 1970s. It is admitted that the '...pastoralists have historically experienced many cycles of herd growth and collapse, good weather and bad weather, and high and low prices for their products' (Barfield 1992, 216). Yet, they '...have proved remarkably resilient in the face of both natural and man-made disasters and there is no reason to believe that the end of pastoralism is near' (Hogg 1992, 135). Despite this optimism, gloomy scenarios are persistently held by many students of pastoral societies: '...many an anthropologist is deeply concerned about the fate of the people among who her or his work was done but still say that those people can take care of themselves. This view is nonsense: in every case that I know of, pastoralism is losing ground' (Aronson 1984, 74).

Many of the crisis scenarios, however, are rooted in a narrative that tells how things were in earlier times when the pastoralists lived in harmony with their environments; how the state, aid agencies and the pastoralists themselves have undermined that harmony. The persistence of the crisis scenarios is attributed, therefore, to the assumption that it serves well the interest of donor agencies and national governments in perpetuating

various forms of planned development interventions. Leach and Mearns (1996, 23) support this: '...the dependence of weak African government departments on official development assistance; and the political and moral pressures on donors to be seen to respond to their domestic constituencies and to act quickly... create a policy-making environment within which...“crisis narratives”...can flourish.' Moreover, the pastoralists themselves, in their attempts to secure development benefits and relief assistance, were seen by many commentators as contributing to the crisis discourse by exaggerating their actual or assumed predicament.

However, the crisis scenarios have resisted change due to much more than the priorities of national government departments, the interest of the donors, or the aspirations of the pastoralists. Rather, the reasons are rooted in the particular approach for the generation of knowledge including timing of observations, procedures for investigation and objectives of research: '... in virtually any discipline particular methods come to acquire credibility and authority, and it can be the inheritance of such methods... that explains the persistence of some received ideas. By defining what is acceptable as evidence, certain privileged methods also act to exclude other sorts of data. It is in this way that certain questions remain unasked, and certain types of evidence are ignored or dismissed as invalid' (Leach and Mearns 1996, 14).

Thus, a common methodological problem in much of the literature on African drylands is making assumptions about the future of pastoralism based on short-term observations and taking these as evidence of long-term trends, when they may simply describe one phase or a low point of some climatic cycle of aridity. As Barfield (1993, 216) puts it: '... the focus has been on what is observable in the short term and using that data to extrapolate current trends into the future'. Thus, one major methodological trap associated with the crisis scenarios is discerning *processes* from *forms*, which combine to give convenient and emotional, but highly misleading impressions about the destiny of pastoralism at the beginning of the Third Millennium.

Another methodological trap encountered in the crisis scenarios could be gleaned from the tendency for a general preoccupation with the *fate* of the pastoralists rather than the *future* of pastoralism: '...the collective future of traditional pastoralists is...at risk in East Africa. By the end of the century (20th) they may belong merely to memory, as traditional African

hunter-gatherer populations do' (Dyson-Hudsons 1982, 213). In this way, the pastoralists are '...too easily made the symbol of a past world, representing... a romanticist ideal of Africa's pre-modern values and aspirations, as people whose way of life should be protected against the assault of modernization' (Anderson 1993, 122). It is therefore not particularly surprising that the anthropological defence of the pastoralists in this context has been scornfully described as an 'ethnic preservationism' since it sounds like a call for '...a tribal reserve system in which the ethnic group is kept in a kind of living museum status, (Bennett 1988, 46). Of course, no one would dispute the justification for opposing the deliberate extinction of traditional pastoralism. This is certainly consistent with international morality as to the rights of self-determination of peoples, rights to cultural survival, and individual human rights to opportunity and to freedom to practice chosen occupations. However, it would not hold to insist that everyone borne into a pastoral society should inevitably remain pastoralist. Less than 200 years ago, more than half the American population lived on farms and now less than three per cent do, but no one considers this to be evidence of an agricultural crisis or decline (Barfield 1993, 218).

A further methodological trap in the crisis scenarios relates to the use of the term pastoralism to designate a *way of life* rather than an *economic activity*. This designation '...bears the danger of misleading the non-specialist into the belief that animal production and husbandry - herding, broadly - is all that pastoralists do. The trap is then set for outsiders to focus entirely on herding activities as they think about pastoralists' future' (Aronson 1980, 175). The fact that most rural societies in East African drylands have agricultural and pastoral, but mainly agro-pastoral, groups and changing from one mode to another has been more common than believed, provides yet a further justification for our earlier call for rejecting the preoccupation with the *fate* of pastoral people in favour of a focus on the *future* of pastoralism. In this fashion it would be possible to ask questions about the ways in which pastoralism has changed to make it more or less competitive in the modern world. There is ample evidence to suggest that rather than being static, pastoralism has adapted to new socio-economic and biophysical conditions and found a niche in the modern world. Perhaps the most significant change pastoralism is experiencing in many parts of the world is the increasing importance of raising animals for

exchange rather than for sheer subsistence (Barfield 1993; Behnke 1983; Kavoori 1996).

Finally, in most crisis scenarios, the pastoralists are invariably remaining silent and impotent. As Anderson (1993, 122) puts it: ‘...debates about the past, present and future of pastoralism in Africa have been (and perhaps remain) largely academic battles, wars of words, in which the voices of “outsiders”... have invariably been heard to the exclusion of pastoralists themselves’. Thus, rather than the dreadful sense of fatalism that taints the crisis scenarios, the present paper calls for a balanced outlook in the sense that the state, the market, drought, agriculture, etc., should be viewed not only as constraints, but equally as opportunities that generate differential but purposeful responses on the part of individual as well as groups of pastoralists. This can only be achieved if one forsakes the *crisis in survival* frame of mind in favour of a *survival in crisis* perspective.

2. HERDING-FARMING RELATIONSHIP

The interaction between pastoralism and agriculture in East African drylands is an extremely complex issue. Despite the considerable amount of literature on the subject, there is still very little agreement on the nature, forms, and outcomes of that interaction. This lack of consensus has, in turn, created a climate of uncertainty that casts grave doubts on the potential role of anthropology and other social sciences in influencing national policy-making and development planning for the sustainable use of resources in East African drylands.

Many scholars have noted that the literature is replete with varying descriptions of the interaction between herding and farming (Toulmin 1983a, 33-41; Little 1987, 195). What is lacking is a wider debate to explain those variations. Indeed there appears to be a general tendency for ignoring debatable issues in the study of East African pastoral societies relative to the literature on peasant societies: ‘... scholars who have studied herding groups are at least partly to blame for their inability to engage in larger debates on agrarian transformations’ (Little 1992, 1f). This is perhaps one of the reasons why our understanding of the interaction between pastoralism and agriculture is still uncertain. In fact, it is as uncertain as it was when Camilla Toulmin, more than 15 years ago, first called for the need to develop a new vision that would take full

account of the historical experience and the socio-cultural complexities of African rural societies (Toulmin 1983b).

The lack of significant progress on the subject could perhaps be traced to the general tendency for research to focus on ‘... a herder/farmer dichotomy drawn along ethnic lines and phrased, for example, in terms of Kikuyu farmer versus Maasai pastoralist (Kenya)... or Hausa cultivator versus Fulbe herder (West Africa) (Little 1987, 195), and, I would add, Nuba agriculturist versus Baggara nomad (Sudan). In this way, the arenas for resource competition and resource conflict were entirely confined to those related to “inter-group rather than intra-group” interactions and that ‘...land tenure and land use problems in pastoral areas are seen as stemming from outside factors, such as farmer encroachments, rather than from processes within the pastoral community (Little 1987, 195). Even in those cases that focus on internal competition and conflict area, as tended to be the case in the literature on the ‘new pastoralism’, the discourse on the interaction between herding and farming is always loaded with populist sentiments. As Ramisch (1996, 5) puts it: ‘... the populists provide a convenient and emotional focus on the fate of pastoralism at the end of the twentieth century. Pastoralism is dead, long live the pastoralist.’

This is perhaps nowhere clearer than in some of the literature on the problems of resource degradation and the usual conclusion of pointing a finger of blame. In some cases, the finger of blame was pointed in all directions, albeit with variable force. In the Sudan, for example, environmental problems in the semi-arid parts of the country were blamed on one occasion on peasant farmers and pastoralists but ‘... the major culprits are both the urban merchants... and the national and international decision makers’ (Ibrahim 1988, 229). Only the researchers are left out! On another occasion, the usual culprit was singled out: the ‘rich’ farmer. Thus, ‘... accumulation and increased social differentiation...are positively correlated with increased degradation’, since ‘... the long-term concerns of affluent tenants are not primarily in agriculture. Although most of them are farmers, they aspire to educate their children for other careers’ (Salem-Murdock 1988, 337f). Following this line of reasoning, one might suggest policies that ban rich farmers from sending their children to school! Moreover, ‘... most of the land these people farm is rented, not owned, and they see it in their interest to use the land for short-term gains without concern for longer sustainability’ (Salem-Murdock

1988, 338). However, when one affluent tenant displayed consciousness of soil quality and the importance of resting the land, which he actually practices by renting in more and more land, the researcher was not impressed since that was 'not the only reason'. Rather, this rural tycoon, persistently denied any credit by the researcher, is getting more and more land because, in the Scheme Administration, '... he has many friends who come and see him several nights a week, and for whom he provides food and drinks' (Salem-Murdock 1988, 344f). One really wonders if there is any researcher in the field who has not been occasionally entertained, if not fully accommodated, some times including transport, by a rich farmer, an affluent pastoralist or an urban merchant. However, such otherwise informative accounts are, unfortunately, self-undermining and, in the process, their utility for policy making (or unmaking) is severely constrained.

The position taken here should by no means be construed as a total negation of the importance of the herder/farmer dimension when one analyses issues of resource competition and conflict. The point is that the complexity of interaction between pastoralism and farming cannot be adequately understood based on a herder/farmer dichotomy. In most parts of East African drylands, the herder/farmer distinction is progressively dissolving and farmers are investing more of their surpluses in livestock and herders are more relying on farming, i.e., they are becoming "herder-farmers" or "farmer-herders" in the sense the terms were used to describe the blurring of occupational categories previously assumed to be distinct (Toulmin 1983b). One really wonders if this is an entirely new and recent phenomenon. There is ample historical and anthropological evidence to suggest that groups, and individuals within the same group, have shifted between pastoralism and cultivation where and when the ecological and political-economic conditions demanded and allowed (Mace 1993; Anderson 1988; Holy 1988; Khazanov 1984; Spaulding 1979; Haaland 1972). Thus, pastoralism and cultivation, on the ground, are not discrete and static objects for academic analysis. Rather, they are dynamically interrelated and this dynamism determines the forms and the outcomes of the processes of transition between pastoralism and cultivation in different socio-ecological settings.

Thus, the focus on the herder/farmer distinction would render the comprehension of the complexity and the dynamics of resource

competition rather inadequate for a number of reasons. First, it ignores the importance of the scale and multiplicity of levels of analysis. Recognising the difficulties associated with combining levels of analysis, claims for access and control of resources are usually contested, negotiated and settled at different levels (e.g. household, village, region, nation), whereby individuals and groups may be directly or indirectly involved in one or more levels.

Second, the herder/farmer distinction distracts attention from the importance of the processes of social differentiation in understanding the dynamics of resource competition and conflict (Little 1985, 1987, 1992). Even when such processes are taken into consideration, in a multi-resource economy, it would be insufficient to treat the question of herder differentiation based on livestock ownership alone. Access to the state, control of land, the degree of involvement in trade, etc., might be as equally important.

Finally, the assumption that the state's influence in pastoral areas is a relatively recent phenomenon, although unsustainable based on historical evidence, it is yet another legacy of the focus on the herder/farmer dichotomy. Although there were instances where the colonial and national governments introduced explicit policies not favouring herding group (Hjort 1981; Sobania 1988; Waller 1984), these should be distinguished from the more indirect policies not favouring pastoralism. The failure to make this distinction is perhaps one of the reasons those who entertain the idea of the "state's recent interventions into pastoral areas" overlooked past indirect policies in other sectors of the local economy with important feedback into pastoralism. In Kordofan, for example, the administrative and land tenure policies were intelligently articulated by the British in a way that encouraged the production of gum Arabic for export and the settlement of the population, with far reaching implications for the patterns of access and control of resources, pastoral mobility and pastoralism in general (Babiker 1998).

Thus formulated, attention should not have been directed initially and only at the herder/farmer dichotomy. In the first place, rather than as *a priori* assumption, the analytical utility of the herder/farmer distinction should be considered as problematic in the sense that it can be accepted, modified or rejected based on the social and temporal specificity of the case under consideration. That is, the nature, the forms, and the outcomes of resource

competition and conflict, at any point in the history of any group, are invariably the product of the total system in which they live, rather than of any particular aspect of it. Social reality is far more complex and the interaction between pastoralism and farming involves complex relations of competition, co-operation and complementarities within as well as between each. Only in this way could one adequately capture the forms, dynamics, and outcomes of resource competition and conflict in any particular context. This should not come as a startling revelation since some anthropological accounts have long ago documented the complexity of interaction between farming and pastoralism (Barth 1981; Ahmed 1973).

3. THE FUTURE OF PASTORALISM

The future of pastoralism in East African drylands is largely contingent upon the flexibility with which it is able to withstand periods of political adversity and/or ecological disaster. Secure pastoral systems are those able to link with economic activities occupying other niches, where alternative production regimes compensate for the loss of livestock. The basis of this relationship in most East African drylands had remained remarkably constant, although pastoralism has gone through marked fluctuations. Pastoralism has thrived, declined and flourished again as periods of ecological disaster have set in and then retreated. This pattern has closely corresponded to periods of climatic fluctuations. During drier periods, most East African dryland economies appeared to be predominantly agricultural, and in the wet phases looked more pastoral. However, political and economic factors also acted to alter the balance between, or the relative importance of, pastoralism and farming. Ecology and political economy are equally important in comprehending the dynamics of human adaptations in East African drylands.

The recent drought in many East African drylands has been hounded by new development initiatives that were invariably geared towards the revival of agriculture (seed provision programmes, animal traction, agricultural credit schemes, etc.). In such an endeavour, pastoralism was completely neglected. Whether such a bias is deliberate or based on false assumptions about the future of pastoralism, the strategy of most rural societies in East African drylands is to combine herding and cultivation, and to sustain the linkages between the two.

However, the arguments advanced here should in no way be construed as a negation of the fact that pastoralism has always been experiencing massive transformations. Thus, the main feature of East African dryland pastoralism in the beginning of the Third Millennium is rooted in the intensification of livestock concentration within a network controlled by economic agents who are for the most part from outside the local communities (commercial banks, livestock traders, bureaucrats). However, this in itself has not fundamentally transformed the internal organization of the pastoral economy. New external technical factors, such as technological innovations, commercial credit facilities, intensification of veterinary care, and secured water supplies, are all combined to facilitate the imposition of a modern marketing operation on an essentially traditional pastoral production system.

Thus, pastoralism and farming in most East African drylands are no longer total ways of life but technical activities whose role in the local economy has always been increasing or decreasing both in absolute terms and relative to each other. In most cases, the movement between pastoralism and farming is often a voluntary response to changing constraints and opportunities in the biophysical and socio-economic environments. Moreover, the movement between pastoralism and agriculture is a two-way process in that it is not necessarily unidirectional or irreversible. Furthermore, such changes in orientation of activities from more to less pastoral and from more to less agricultural, are often shifts of emphasis between patterns present in the local economy, rather than a radical transformation from one activity to another.

In a multi-resource and multi-actor economy, where the level of functional specialisation is very low, issues of resource competition and conflict are better analysed and adequately comprehended in the context of distinctions categorised on *economic sector* basis such as pastoralism and agriculture, rather than on *occupational labels* such as herder and farmer or a trader and administrator. This is perhaps the main reason why Fredrik Barth, more than a quarter of a century ago, called for 'a general perspective on nomad-sedentary relations', whereby the focus should be, at least initially, on *types of activity* rather than on *groups of people*. Otherwise, the illumination of the complex relationships between the 'desert' and the 'sown' might not be forthcoming (Barth 1973).

Thus formulated, the diversity and multiplicity of resources can be mapped out and important questions associated with access and control - such as how claims are contested, negotiated and settled - and who are involved can be raised. Moreover, although difficult to sustain in practice, in this way one might be relieved, at least for the moment, from the obligation of siding with those among whom he or she has conducted field research. On many occasions, this burden and the associated populist sentiments, in the process, have seriously undermined the findings and the conclusions of high quality research.

Moreover, there is a tendency in many East African countries to consider pastoralism and agriculture as discrete objects for national policy-making. This is very clear from the fact that the tasks of agricultural, livestock and forestry development in most cases are compartmentalised and entrusted to different government institutions without any formal mechanisms for co-operation and co-ordination. This, more often than not, has resulted in contradictory, and at times conflicting, policy goals and objectives. In some ways, this state of affairs could be considered as a further legacy of the herder/farmer distinction, which excludes any possibility for appreciating the complexity of interactions between economic activities previously assumed to involve different actors. The fact that the livelihoods of many rural communities are based on agro-silvi-pastoral systems of production calls for a reconsideration of current policy-making frameworks. The objective should be to attain the highest possible level of harmony in policy formulation and programme implementation of otherwise sectorally segregated development initiatives.

Therefore, when confronted with a complex situation such as East African drylands, researchers should avoid getting entrapped into categories and distinctions of their own creation. Having done that they are, of course, free to take sides.

4. SURVIVAL IN THE DRYLANDS

Rural communities in East African drylands are suffering disproportionately, with many groups experiencing declining standards of living and increased poverty and insecurity. In part this is because East African dryland land use systems are inherently risky, relying on scarce resources of water and pasture and susceptible to the vagaries of nature and recurring droughts. In general, national governments did little to

effectively stimulate 'traditional' herding and farming. To the contrary, the development of small scale herding and farming was regularly frustrated in numerous direct and indirect ways, such as the appropriation of the best grazing and arable lands to be allocated for commercial ranching and farming (Helland, Getachew and Abdel Ghaffar, this volume) or the ongoing conflicts and civil strifes (Abdel Ghaffar, Otim and Sträs, this volume).

Although our general understanding of human adaptations in East African drylands has grown over the years, there are still some lacunae and widespread misconceptions. More specifically, our current perceptions of East African dryland communities remain directly founded on the populism of ethnographers and the wishful thinking of colonial administrators. While the former mourn the 'decline' of 'traditional' herding and farming communities, the latter were more than sure about their inevitable disappearance. Not only does this fail to do justice to the flexibility and dynamism of human adaptations in East African drylands, it has also led to the wasting of considerable efforts in irrelevant research and development interventions (Idris Salim, this volume).

It would be no more than stating the obvious that large parts of East African drylands have extremely harsh and unstable natural environments. The incidence of rainfall is particularly irregular in amount and distribution as well as highly variable in time and space. Droughts, epidemics and pests attack the region frequently and can cause total crop failures, livestock losses and general human sufferings. Thus, East African dryland pastoral and agricultural systems of production are essentially systems in perpetual states of imbalance (Niemeijer 1996, 100f; Gartrell 1985). Their apparent persistence and survival in the face of climatic hazards and socio-political instability is not much dependent on the establishment of equilibrium, but on the dynamic responses and flexibility of their resource base. Thus, East African dryland pastoral and agricultural systems are inherently unstable, subject to continual adjustments, and depend on dynamic responses for their survival. These include: complex forms of production and subsistence patterns, resource utilization, mobility, and protean ethnic identities.

4.1 Complex Production Regimes

Over the centuries, East African dryland communities have evolved into extremely diverse, dynamic and flexible social systems and production regimes. This dynamism and flexibility finds expression in the active responses of these communities to the shifting opportunities and constraints of the physical and social environment, as well as the creative effort to exploit new economic opportunities and generally redefine their productive pursuits, in both the short and long term. Flexibility and adaptability have been strong characteristics of East African dryland communities. Moreover, this flexibility and adaptability is predicated upon the exploitation of a broad resource base with repeatedly shifting emphasis between its various components (Niemeijer 1996).

However, contrary to the dominant thinking, these new forms did not replace the old ones; i.e., herding or farming did not replace hunting and gathering. Rather, there is ample historical evidence to suggest that the adoption of new forms took place only gradually and that the relative importance of specific forms shifted constantly. This contradicts the commonly held conception that man gradually but steadily moved from one form to another in a phased, progressive evolutionary path. On the contrary, the historical records suggest that diversification may have been a central strategy of survival. This does not mean that specialization was absent. Simply, the point is that concentration on one or more forms did not lead to the total abandonment of others.

Changes in subsistence patterns occur regularly, but not in one direction. Collective and individual creative choices lead to a specific subsistence pattern that changes over time as constraints, opportunities and choices change. The shift from herding to farming, for example, has neither been inevitable nor unidirectional and irreversible. Thus rather than evolution, it is the complex interaction of natural, social, economic and political factors that operate at a specific time and in a given geographical setting that account for most if not all socio-cultural changes. While evolution may open new avenues to furnish subsistence, it does not preclude the use (and the appropriateness) of earlier practices and forms. Thus, when a society (or an individual) over-specializes and optimises within the confines of one specific (natural or social) form, it loses its ability to rapidly adapt to external changes and thus it becomes vulnerable. In other

words, in dynamic environments the survivors are those that rapidly adapt, not those that specialize too narrowly (Niemeijer 1996, 93).

The case of Il Chamus of Lake Baringo, Kenya, is a clear example of the continuous shift of emphasis between farming and herding. In the 19th Century, the Il Chamus were using a complex irrigation system; initially intended for subsistence purposes, it was gradually adapted to cater for the growing local market for agricultural produce. Moving away from their previous subsistence orientation, their agriculture became more oriented toward commercial production. Regular surplus production offered a chance to build social status and to acquire a growing number of livestock. Neighbouring poor Maasai and Samburu were welcomed to the local labour market. To them, work as agricultural labourers offered an opportunity to rebuild their decimated herds. The combined effect of increased population, intensified production, and increased use of higher-yield but higher-risk varieties of millet, eventually made the system vulnerable. Consequently, the Baringo area lost most of its attraction as an important source of agricultural produce. The farming system finally collapsed, and the Il Chamus turned increasingly toward the culturally superior stock raising (Anderson 1989; Little 1992).

There is ample ethnographic evidence to suggest that the dividing line between arable farming, herding and trading has always been very thin. Anderson (1989) points out that poor Maasai and Samburu readily participated in arable farming to acquire the wealth necessary to put them back into animal husbandry. Similarly, the Il Chamus, who had exploited the economic opportunities offered by arable farming, returned to livestock keeping when the profits from farming began to dwindle (Little 1992). Thus, herders engaging in arable farming and agriculturists participating in stock raising are not a recent trend, but have always been a basic ingredient of survival for most African societies (Babiker 2001; Mace 1993). The presence of the cultivating and trading herders (Anderson 1988) represents a challenge to the discrete world-view that dominates the (natural and social) sciences. The pervasive tendency toward the classification of all phenomena perhaps explains why scholars of all disciplines have always been tempted to put simple labels on natural and social phenomena: to divide into classes and to separate into stages (Kottak 1997, 342; Leach 1978, 21; Niemeijer 1996, 97f). It is clear that labels such as 'herder', 'farmer', and 'hunter-gatherer' are out of place in

the broad-based subsistence of many East African dryland communities. The danger associated with such labels is that they suggest a kind of *homogeneity within* the labelled group and marked *differences between* labelled groups (Babiker 2001; Little 1992).

4.2 Resource Utilisation Mobility

Conventional wisdom tells us that pastoral societies are *mobile* while agricultural ones are *sedentary*. There is strong empirical evidence to challenge this view. Most African dryland rural societies had and still have a broad resource base. In response to internal and external pressures and/or inducements, they shift among preferred resources and, accordingly, adopt a more or less mobile/sedentary life. The unjustified exclusive association of physical mobility with pastoralism may contribute to this confusion. The Maasai, for example, have traditionally survived on almost purely pastoral resource base, while their mobility was limited. Conversely, the adaptations of the predominantly farming communities among the Hamar, Gawama'a and Bedeiriya of central Kordofan are characterized by high degrees of seasonal mobility dictated by the severe water scarcity during the dry season, the search for seasonal employment opportunities, and the demands of religious rituals.

Thus, in addition to the imperatives of the dominant form of subsistence, numerous ecological and socio-cultural factors induce, or militate against, permanent settlement. Many of these determinants, however, vary both in space and in time. It is, therefore, usual for a single community to change its mobility patterns either seasonally or over a long term regardless of being pastoral or agricultural. Again, the tendency to classify, to transform differences of degree into differences of kind, and to impose order on the very much continuous social and natural phenomena is perhaps the main reason behind the empirically unfounded exclusive association of nomadism with herding and sedentarism with farming. In East African drylands, as elsewhere, resource utilisation mobility pervades all livelihood pursuits including teaching and research!

4.3 Protean Ethnic Identities

The recurrence of tribal conflicts in western Sudan, for instance, points to the rigidity and persistence of ethnic boundaries. However, various mechanisms in many societies have historically allowed individuals or groups to change their identity and contravene ethnic boundaries. There is

ample ethnographic evidence that shows how some destitute herders were accepted into agricultural communities at times of famine and livestock epidemics. These herders participated in the non-pastoral subsistence activities of their hosts with the objective of rebuilding their lost herds. Thus, periods of destitution can lead to important cultural exchange: not all former herders returned to herding, while some agriculturists became increasingly interested in raising livestock. In this way, a crisis can play a central role in enhancing ethnic mobility.

During better times, however, extensive trading between the 'desert' and the 'sown' constituted another important sphere of interaction. In this case, the accumulation of capital, rather than the crisis, can lead to ethnic mobility. Haaland (1972) demonstrates how wealthy Fur agriculturists in western Sudan join the Baggara (cattle herders) such as the Rezeigat and the Abbala (camel herders) such as the Zaghawa to safeguard their considerable investment in cattle by becoming mobile herders themselves.

The above cases show how groups assumed to be radically different in their resource base interact with each other in a manner that enhances the survival capacity of each. They also demonstrate that movement of individuals and groups between different productive regimes is an integral part of the dynamics of East African dryland communities. Moreover, they show that ethnic boundaries are not always as rigid as what current media coverage of ethnic conflicts might suggest (see Otim, this volume).

Most of the papers in the present volume will argue that far from being static, the long term survival of East African dryland communities is predicated on calculated and orchestrated responses to a dynamic natural and social environment. Of course, it is impossible to grasp these dynamics through synchronic case studies (i.e., dealing with phenomena at one point in time and ignoring previous historical developments). Instead, what is required is a diachronic approach (i.e., dealing with the historical development of phenomena), whereby material from various periods is examined and analysed (Niemrijer 1996). A diachronic study of the history of African drylands reveals that many of our predictions about its future are invalid. East African dryland communities are not passive; they respond in innovative and dynamic ways to the vagaries of their social and physical environments (see Ibrahim, this volume).

5. THE PAPERS

The papers in this volume cover diverse but closely inter-related issues: resource alienation, militarisation of local conflicts, local institutions, knowledge in resource management and conflict resolution, and other developmental issues. The collection opens with a contribution by Idris Salim, which raises several theoretical and conceptual issues that cast grave doubts on the conventional wisdom that informed contemporary research on East African drylands in general and nomadic pastoralism in particular. The paper argues that we need to pause and reconsider our objectives, concepts and methodologies if we are to justify the time, effort and money expended on research on pastoralism. Thus, anthropological knowledge has to be subjected to rigorous scrutiny as regards its adequacy for learning about the pastoral form of human adaptation. By reference to the case of the Sudan, the paper demonstrates that many recent works on pastoralism either take the form of reports or reproduce earlier ideas without any real innovation or creativity in both perspective and theory.

5.1 Resource Alienation

Johan Helland deals with one of the vitally important issues in today's Ethiopia, i.e., land tenure. By reference to the situation of Borana pastoralists, Helland demonstrates how pastoral land rights are marginalized in public debates on land tenure issues in Ethiopia. Moreover, pastoral land rights are unclear usufruct group rights to such lands as the state sees fit to grant the pastoral group. The pre-eminence of the rights of the state over group rights have been detrimental to the Borana and other pastoral groups. This situation has paved the way to bush encroachment, expansion of agriculture into the rangelands, and enclosure of the richest pastures for the exclusive use by powerful individuals and smaller groups. In this way, the Borana are caught between a political process, which has resulted in severe shrinkage of the area available to them, and ecological processes, which has reduced the overall productivity of the remaining rangelands. The paper concludes that the Borana must live off their land and that the various processes of land alienation do not help the future of pastoralism in Borana.

Getachew Kassa addresses once more the issue of land alienation in the case of Borana. The paper highlights the competing and conflicting land claims of Borana pastoralists vis-à-vis other claimants and users. The

paper goes further than Helland's to address the "self-defence" measures and forms of adaptation of Borana pastoralists against the increased encroachment on their collective resources by the state and other groups together with the policy responses of the Ethiopian government and international organizations. The paper ends by discussing alternative policy interventions that might be considered in any effort that aims at solving the problems of the Borana and other disadvantaged pastoral and agro-pastoral groups in the drylands of East Africa.

The issue of land alienation, addressed by Helland and Getachew in the case of the Borana of southern Ethiopia, is taken up again by Abdel Ghaffar M. Ahmed, with reference to the pastoralists of the southern Funj in the Sudan. The shrinking of pastoral land as a consequence of land alienation to foreign companies and the Sudanese private sector for the development of mechanized agriculture together with extension of the civil war into the southern part of the area, a vital dry season grazing ground, has accelerated the ongoing processes of sedentarisation in the region. The increased concentration of different pastoral groups in a small territory and the consequent intensified competition for pasture and water resources, had lead to ecological degradation and inter-group conflict. This, in turn, had created a general crisis in social peace and an increased militarisation of inter-group conflicts, evident in the almost universal use of automatic weapons. In this way, the hitherto complementary relations between the various ethnic groups in the region had been progressively undermined.

Omer Egeme's paper is a contribution to the ongoing debate on the future of traditional pastoralism. He paints a bleak picture of the pastoralists' future based on a resource alienation mechanism, i.e., herd transfers to the so-called 'new pastoralists', which differs from the ones discussed by Helland, Getachew and Abdel Ghaffar; i.e., appropriation of rangelands, watering centres and migration routes. The major argument of the paper is that adverse environmental conditions under an expanding market economy and increasing herd de-capitalization are the major deriving forces for herders to exit the pastoral sector or to stay and work as hired herders for absentee herd owners.

5.2 Militarisation of Local Conflicts

The issue of militarisation, already alluded to in the contributions by Getachew and Abdel Ghaffar, represents the focus of Peter Otim's and Frode Sträs's papers. Otim argues that the situation in Karamoja, northeast Uganda, is not only one of perpetual disaster and conflict over natural resources as presented by most scholars and the media. Rather, there is a system of order through the various institutions developed by the pastoralists to make their livelihood viable. Along these lines, the paper argues that though the Karimojong are ferocious raiders, it is important to look at the mutual alliances that they develop for purposes of maintaining harmony in resource use amidst the scarcity and chaos. In the semi-arid region of Karamoja, these alliances are important for building peace and maintaining security in the competition for scarce resources. Moreover, in this militarily volatile region, these alliances have also been used for both aggression and defence, both of which are, ironically, survival strategies. Accordingly, the paper concludes that the frantic efforts toward peace building in the region need to reflect on these alliances because they are useful institutions for building peace and maintaining security.

Frode Storäs, by reference to the case of Karamoja, deals with the delicate issue of militarisation of local conflicts and the associated proliferation of arms trade in Africa, already alluded to by Abdel Ghaffar and Otim. The argument begins by referring to the hitherto one of the major strategies for resolving intra- as well as inter-group conflicts, i.e., people breaking up, and moving away to join other groups. This fission and fusion of different groups are processes still going on in many parts of Africa. However, these conflicts now take another dimension. The ready access to small arms has drastically increased the lethality and duration of violent conflicts and, in the process, become a serious barrier to security and stability. In this game, according to Storäs, we know the losers, but it is not easy to point out the winners. They are the weapon producers and weapon dealers who are pouring petrol on many simmering conflicts in Africa. The paper concludes by drawing the attention of those who are concerned and working for peace in Africa that they are fighting against strong economic powers. This requires a concerted international reaction whereby the weapon trade and all the economic interests connected to it must be seriously addressed. Having done that, the conflicts on the ground are something people must solve by themselves.

Mohamed Hashim Awad looks at the issue of 'smuggling' not from a jurisdictional point of view but as an important survival strategy rooted in the history of border communities in the Horn of Africa. The paper shows how primary goods are smuggled across frontiers in exchange for basic necessities such as sugar, fuel and medicine. In general, smuggling or informal cross-border trade is defined as "...the illegal transport of goods...in or out of a country to avoid taxation. It is a type of international trade, which avoids imposed duties and restrictive laws" (Niger-Thomas 2000, 45). In the broader sense, smuggling refers to a wide spectrum of activities some of which are illegal, while others, though not illegal in themselves, are carried out in a manner that avoids taxation or deprives the state of revenue. Quite often high duties lead to smuggling and contraband trade.

Contrary to the conventional view of smuggling as a 'problem', one can look at its positive and negative effects in a specific context. Rather than emphasizing only the negative impacts of smuggling on fiscal policy, we need to consider its positive impact on individuals and certain groups within a society. In other words, while clandestine trade impoverishes the state, it brings considerable wealth to people who have no other means of acquiring it. In many contexts, it represents local solutions to local problems if not a way of life for many people. Still, smuggling, like other activities in the informal sector, falls within those economic activities that are unmeasured and unrecorded. However, the paper ignored the important role cross-border trade plays in the transfer of lethal weapons, which fuel the process of militarisation of local conflicts briefly discussed by Storås.

5.3 Local Institutions and Knowledge

Rahel Mesfin, like Helland and Getachew, addresses the land tenure issue in Ethiopia, with reference to a predominantly agricultural community, namely, Zege peninsula in west Gojjam. In this case, the most striking feature of the disputes over access to land is that they are mainly intra-group rather than inter-group as those that characterize pastoral lands discussed by Helland. The paper provides a detailed account of the nature and sources of disputes, mechanisms of dispute settlement, and the role of different actors in the process. In this context, the paper accords more space to the role of local institutions in the settlement of land and other disputes. The paper concludes that the 1975 land reform has introduced

new land tenure arrangements in place of the traditional system and in the process, land tenure issues are becoming highly politicised with far reaching implications on government policies, local level politics and administration, and the utilization of natural resources.

With reference to western Sudan, the focus of the late Abdel Rahman Abbaker Ibrahim's paper is on local skills, knowledge and patterns of human adaptation to the harsh environmental realities characteristic of the Sahel. Recognizing that not all of these practices are always useful, indeed some of them are harmful, the author concludes by urging scientists working on arid lands to conduct thorough investigations that might lead to the un-coding and scientific explanation of local knowledge and practices.

Siddig El Tayeb Muneer's paper is based on the findings and results of several studies conducted by the author with a view of examining the environmental and socio-economic context of dry farming in western and northern Sudan. Although the author recognizes the technical rationale behind most farming practices in the dryland, his analysis ends with a somewhat pessimistic conclusion about its future. According to Muneer, practices such shifting cultivation had evolved, and are certainly appropriate, under certain conditions. In the case of shifting cultivation, these conditions include, *inter alia*, low population density and abundant land. With increasing population and the associated land scarcity, the viability of such practices is questioned. In this situation, if no effort is made towards agricultural intensification through technological innovation, the drylands will continue to be "pushing" areas in the migration jargon. Muneer's paper and his conclusions cast grave doubts about the limits of, and the current academic romance with, the so-called indigenous knowledge and institutions.

5.4 Other Development Issues

Mustafa Babiker's paper represents an attempt to clarify some of the misconceptions associated with food aid provided as food-for-work in the context of development projects. Thus, to challenge the stigma attached to food-for-work, the paper provides ample evidence that questions the empirical foundations and the moral grounds that inform much of the strong and loud voices against food-for-work in the literature. The paper

also tries to show how food aid provided as food-for-work can be strong in food security and rural development especially in high-risk areas.

Suaad Ibrahim Eisa's paper represents an attempt to highlight the challenges faced by nomadic education before the adoption of the "multi-grade one-teacher mobile school". The paper provides a general profile of the mobile school and evaluates its significance in meeting the educational needs of nomadic societies. The paper also reflects on the impact of mobile school education on the nomads' socio-economic life.

Mohammed El Tayeb Abdalla provides firsthand information on the production and marketing of *tumbak*, a kind of chewing tobacco widely used in the Sudan. Although not explicitly mentioned in the text, the paper presents powerful economic counter arguments against those voiced in recent years in some religious fundamentalist quarters calling for a ban on both production and consumption of *tumbak*. In stead, the paper calls for more research to amplify *tumbak*'s significant contributions to employment creation, farmers' incomes, state revenue and environmental conservation.

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STUDIES OF PASTORAL NOMADISM IN THE SUDAN: AN OVERVIEW

*Idris Salim al-Hassan**

1. INTRODUCTION

The following is a detailed discussion of an argument presented at the last "Human Adaptation in East African Drylands" workshop in Jinja, Uganda, March 1998. In that meeting, I have argued that we need to pause and reconsider our objectives, concepts, and methodologies in relation to pastoral nomadism to justify the time, efforts and money expended on such research and studies. This entails examining the theories, perspectives and historical contexts informing those studies. Thus, anthropological knowledge has to be subjected to rigorous scrutiny as regards its adequacy for learning about this form of human adaptation. My position in the Jinja meeting was rather sceptical on most of the above counts. As a general criticism I stated that much of our recent works either take the form of reports or rehashing of earlier ideas with no real innovation or creativity in both perspective and theory.

What I attempt here is an exercise about the validity of the above statements using the Sudan case as an example. The exercise - and not the task - is rather simple; procedurally, I confined myself to that part of anthropology in the Sudan that has been concerned with pastoral nomadic groups and issues. Where it is relevant, however, non-anthropological and non-Sudanese material is discussed. Chronologically, the year 1910 - the coming of Seligman to the Sudan as the first professional anthropologist - poses itself as a logical starting point. The time span of this overview extends up to the present. I shall then look into which concepts were used to discuss what set of historical conditions. The assumption here is that there is in general a correlation between the latter. They are not, however, to be viewed as not being influenced, directly or indirectly, by the general anthropological theories and paradigms prevailing at the time. The

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discussion sums up by reviewing the major concepts employed in connection with pastoral nomadism in the Sudan. The writer has no pretensions or presumptions that the present work is in anyway exhaustive. Particularly, mention and reference to recent works is rather sketchy and cursory.

2. PERIOD COVERED BY THE STUDY

There are many bibliographies and surveys relating to anthropological literature in the Sudan, but very few attempt to set it within delimited periods. The papers by Cunnison (1977) and Ahmed (1981) stand out as exceptions. For Cunnison there are three periods: first, the colonial period characterized by the presence of expatriate anthropologists - mostly British - some of whom worked as government anthropologists or were simply invited by the colonial government. The second period comprises the transitional period leading to Sudan's independence passing through the sixties. The expatriate anthropologists continued their service though under a national government and national university administration for, at least, those who were working in the newly established Faculty of Economics and Social Studies (which included - and still do - the Department of Sociology and Social Anthropology). The 'students in the Social Studies Faculty were invariably Sudanese. The third period started in the early seventies with the return from Europe of the first batch of qualified Sudanese anthropologists.

Two observations can be made about Cunnison's periodisation. First, it was not concerned with anthropological ideas and concepts per se in so much as with the relationship between anthropologists and planners (government administrators). Second, it does not cover the period when the students of the first Sudanese anthropologists began to turn out. As we will see later, these two remarks can have some important implications. Nonetheless, the scheme can generally be acceptable for the purposes of this study, bearing in mind the above two observations. In the following section, I shall start with the colonial period and the decade that follows, paying special attention to the sixties as a historically significant period for anthropology for the Sudan in general, and for pastoral nomadic studies, in particular.

3. THE COLONIAL PERIOD

The history of anthropology in the Sudan - judging by the presence of anthropologists - predates the coming of the British colonial forces to decolonise Sudan in 1898. As far as I know it was Seligman who was the first anthropologist invited by the Sudanese government in 1909 "to fill in the gaps in African anthropology" (Hill 1967, 335). This was implemented through carrying out ethnological surveys (Hill 1967). What is of interest for us here is that Seligman's early studies in this connection began by investigating the Kababish - a pastoral nomadic "tribe" in northwestern Sudan. Being a physician by training, Seligman focused on the field of anthropometrics, yet his diffusionist tendencies inclined him to make comparative researches based on racial grounds. The Kababish were selected then because they were considered as Arabs (Semites) whereas the other groups in the Sudan were classified as either Hamites (Cushitic) - e.g. the Beja - or Negroid - e.g. the Nilotes. The problem for Seligman was to indicate to what extent the Kababish (as a superior race, Semites) had influenced or had been influenced by the adjacent and debased Negroid stock. His work discussed topics such as: "Some aspects of the Hamatic problem in the Anglo-Egyptian Sudan" (Seligman 1913); "The physical character of the Arabs" (Seligman 1917); "Sacred litters among the Semites with reference to the *uttfa* of the Kababish" (Seligman 1918); "The religion of the pagan tribes of the White Nile" (Seligman 1942); "*The Kababish, a Sudan Arab tribe*" (Seligman and Seligman 1918); "*Pagan tribe of the Nilotic Sudan*" (Seligman and Seligman 1952).

In the light of the above, and concerning the Kababish, Seligman (1917) went over measurement of Arab skull forms in Arabia to conclude that the Kababish "are very mixed... the richest division tending to contain the highest population of members with Negroid characters because they have possessed the largest number of slaves" (Crowfoot 1918, 58). To make sense of this kind of conclusion, one has to conceptualise the whole problem within the paradigmatic framework of the early twentieth century anthropology, which was engrossed in ramifying the superiority of the civilized west in its contact with "primitive people" under the former's hegemony. In both its diffusionist and evolutionist trends, the anthropology of that period queried over factors behind, and aspects of, degeneration of social institutions and cultures. Theoreticians, e.g. Westermarck (1933), and administrators, e.g. Mac Michael (1922), alike

were in the company of field researchers, e.g. Seligman. For both Seligman (1918) and Mac Michael (1910, 1922), the Kababish were a good testing ground. Nevertheless, one should note here that the encounter between Seligman as an anthropologist and the administrators of Sudan's colonial government' - e.g. Davies (1920,1921) - has produced a wealth of information on the social institutions, cultural customs and folklore among other things - of the Kababish as a pastoral nomadic group.

The second anthropologist to continue Seligman's work was his student Evans-Pritchard who, like Seligman, had a very strong relation with Mac Michael, then occupying the position of Civil Secretary. Evans-Pritchard contributed significantly in the collection of material that was later included in Seligman' and Seligman's 1952 *Pagan Tribe of Nilotic Sudan*. Neither the anthropological problems nor the research areas of Seligman were the same as those for Evans-Pritchard. The latter's main emphasis was on studying a particular Nilotic group - Azande (Evans-Pritchard 1937), Nuer (Evans-Pritchard 1940a), Anuak (Evans-Pritchard 1940b), and Shilluk (Evans-Pritchard 1948); an inclination that could no doubt be traced to the influence of Malinowski on him. Nevertheless, theoretical (functionalism) and practical (administrative) considerations had led Evans-Pritchard to stress in his studies the functional segmentary system of transhumant "Negroid" societies of Nilotic Sudan. From another perspective, it could be claimed that the "racial" issue had been resolved by abandoning the Semitic (Arabs) and the Hamitic (Beja) arguments for the orientalist, such as Mac Michael, and the "Negroid" for the anthropologists (which was a matter of pure choice as indicated above). The result of this position was that pastoral nomadic groups occupied a very low ranking on the research list of the anthropologist working in the Sudan for at last three decades (1920-1950).

4. THE TRANSITIONAL PERIOD

The above situation continued until the early fifties when Ian Cunnison came (1952-55) on a government grant to study the Messiriya. We are not informed about the government's change of attitude that "laid the Messiriya as the subject of study", but Cunnison assures us that "there was no pressure [on me] to make inquires in any particular direction" and that he did as he liked, "which meant practising anthropological research" (Cunnison 1964, 5f).

Cunnison's role was historical in filling the gap during the transitional period between the final years of British colonialism in the Sudan and the years that immediately followed the country's independence in 1956, as far as the anthropology of pastoral nomadism is concerned. He was the first anthropologist after Seligman to conduct research on a pastoral group in the northern Sudan without following any racial concepts. Nevertheless, being Radcliffe-Brown's student, he was well versed in "functionalism" and was particularly theoretically sensitive with a tint of sociology. Cunnison examined his subject of study-the Messiriya - in a holistic manner, as a tribe, and indicated how all other social aspects in that society were functionally well interrelated and how they could only be understood as such. In his view, three things have to be taken together: physical environment, the economic system (cattle being the most important element in the Messiriya economy) and the fact that nomadism requires constant physical movement, which implies a certain style of life (Cunnison 1967, 12-16). Cunnison thus dealt with their land (Cunnison 1954); their cattle (Cunnison 1960a); their movement (Cunnison 1963a), usually considered in relation to their political (Cunnison 1960b) and other social organizational aspects such as the social role of cattle (Cunnison 1960a); the position of women (Cunnison 1963b); vengeance and joint responsibility (Cunnison 1972); and other general ones (Cunnison 1962). The type of cattle they keep - with long legs and broad backs - suit their needs for swift movement and transport. The Baggara opt for quantity rather than quality because they are not market-oriented and that ownership of big cattle herds consolidates one's social and political prestige through generosity and ability to entertain guests and provide for the needy. Division of labour and its organization around herding tasks are gender-based and they vary according to geographical and seasonal situations, but this is also reflected on the size of collaborating units and their kinship relations. The bonding matter that maintains the cohesion of the society is the value system. We will discuss the importance of this statement when we come to the discussion of the problem of settlement of pastoral nomads.

From another perspective, Cunnison's presence and research work were both timely and instrumental in shaping the second stage in the anthropological study of pastoralism in the Sudan. International and local conditions - both at the national level and within the University of Khartoum - enabled investigations on pastoral nomadic conditions when

many Third World countries attained their independence and questions of modernization and development became pertinent. The questions were meant to elucidate matters on which groups and sectors could be considered for good development or else could be regarded as impediments to such line of progress (Jacobs 1965; Monod 1975).

In 1958 the Department of Anthropology and Sociology was established under the wings of the Faculty of Economics and Social Studies. The 1960s were the golden years of the department. While Cunnison occupied the position of head, its staff represented varied backgrounds of nationality, experience and theoretical and research interests. Brausch, a Belgian, was interested in practical interdisciplinary approach in anthropology and he was focusing on rural issues in their wider national context. Talal Asad - Austrian, British, and Saudi Arabian, all in one - was a brilliant Marxist theoretician who approached his research from this angle and he studied the Kababish nomadic group. Fredrik Barth, a Norwegian, came with a fascinating record of field experiences (Pakistan and Iran) and by then had already built his reputation in anthropological theory, diverging from the dominant functionalist approach adopting instead a more dynamic one rooted in transactionalism. James Faris, an American with British training at Cambridge, was like Asad, a Marxist of strong theoretical inclinations and interested in ideology. Rehfisch - another American anthropologist teaching at the British University of Hull - made studies on urban issues. Wendy James, a Briton, followed the classical functionalist school while researching the Sudan-Ethiopia bordering "tribes". Lewis Hill, another Briton, took up urban as well as rural "village" studies. Dyson-Hudson was interested in pastoral nomadic groups on whom he had previous experience gained in Uganda on the Karimojong. Ahmad al-Shahi, of Iraqi origin with functionalist British training, did his investigations on the Shaiqia peasant group in northern Sudan. Peter Harris-Jones was a South African activist who combined anthropological and sociological experiences to deal with developmental questions from a practical point of view using an innovative approach termed "instant anthropology" with the aim of providing practical solutions in a relatively short time. Many famous and pace-setter anthropologists of international renown participated during that period contributing their lot as external examiners - e.g. Evans-Pritchard, Mitchell, Ion Lewis, Baxter etc.

Based on the above, I would like to draw the following remarks. First, it is obvious that not all the staff, or those associated with the department one way or another, in the 1960s, were specialized in pastoral nomadic studies per se. However, for those who were, some of them have had extensive experiences and significant theoretical contributions in the field of anthropology in general - for example, Barth, Asad and Lewis. Secondly, it is the above batch of anthropologists who shaped - directly or indirectly - the subsequent steps of anthropology in the Sudan. The early generations of Sudanese anthropologists had their training under some of the aforementioned anthropologists who became their mentors. Thirdly, what is more important is the cumulative effect of the totality of the situation rather than the impact of individual persons - as those people were involved in collaborative work as well as being engaged in debates among themselves. This will soon be apparent. Fourthly, there was a conscious plan for conducting research in the Sudan set out by the department's administration of the time. The plan was based on the following criteria: (1) to shift research from southern to northern Sudan - a move seen to rectify the situation academically and geographically (as the north was almost completely neglected anthropologically-speaking); (2) to cover as much geographical parts and societies in the North as the capacity of the department would allow- to use research results as teaching material; (3) to make training cater for the needs of would-be anthropologists and sociologists alike; and (4) to make that training take into consideration the changing circumstances with the Sudan's independence so that students would be able to contribute to the country's development. In other words, diversification and relevance were the underpinning principles (Abdel Ghaffar Mohammad Ahmed and Fahima Zahir: personal communication). Hence, the first batches of students were so fortunate in having alternative academic research options, to be trained by some of the best anthropologists at the time, in an academically dynamic milieu and at the opportune historical moment.

The next discussion outlines the most important features and issues of pastoral nomadism in the Sudan in this second stage. As mentioned before, in the post-World War II period major donor countries and international organizations offered substantial financial and "technical" assistance to the newly independent nations to help with their modernizing efforts to attain development. Conditions and factors for or against the process of modernization were sought out and identified in the economic,

social and/or cultural spheres. Pastoral nomadism deserved special attention, as it was generally thought to lie outside the matrix of the usual developmental processes of that time. Many funds were devoted to investigate this issue in terms of consultancies, research grants, experimental projects, etc., by UN organisations - e.g., FAO, UNESCO and ILO; and others, e.g., Ford Foundation.

The Sudan, with its huge pastoral nomadic areas, was in the middle of this international and regional attention. The Sudan government's policies had to respond to get its share. Many government ministries and specialized departments drafted plans and submitted proposals for research and establishment of experimental projects dealing with pastoral nomadic groups. The Department of Anthropology and Sociology at the University of Khartoum offered the needed academic expertise. Ford Foundation supplied a lot of funds to assist in carrying out academic investigations some of which materialized in Ph.D. dissertations, e.g., Talal Asad's. Therefore, when government bodies or other organizations sought advice, the department's staff provided comments and critique based on their own field experiences rather than abstract theoretical formulations. Thus, it is interesting to note how they had adopted a common stance on the issue of settlement of nomads proposed by the government's administrators and planners. Cunnison, Barth, Asad, Hill and Dyson-Hudson, despite differences in their theoretical loyalties, had jointly co-authored position papers on settlement of nomads, on the premise that nomads' way of life was completely rational given their ecological, economic, social and cultural conditions (Asad, Cunnison and Hill 1965; Barth, Cunnison and Dyson-Hudson 1963).

Three remarks follow from the above. First, despite the individual differences of the staff, a common position was springing from working within a department's research scheme. Second, a position was taken in discussion with the government planners and administrators, indicating the department's objective to secure relevance. Finally, the same position continued to be held by the majority of Sudanese anthropologists until today.

Among themselves, as alluded to earlier, these members of the staff interested in pastoral nomadic studies had sharp theoretical and perspective differences. Take Cunnison, Barth and Asad, for example, on the issue of segmentation. Adopting a functionalist approach with

reservations, Cunnison showed how the segmentation model did not work beyond the level of minimal lineage - that is, it worked up to a point. Barth, an anti-functionalist, applied the game theory model which emphasized interests of actors driven by incentives and held back by constraints while aspiring to maximize their gains and minimize their losses. Alliances were based along this principle and not on mere kinship relations as the segmentary model claimed. For Asad in the Kababish situation a small ruling group, Awlad Fadlalla, controlled the society through the ideology of unity of kinship. This unity did not exist in practice except for the ruling section, whereas the ruled were not able to organize themselves on kinship (read segmentary) relations to carry out any joint action at the political level. Asad used elitist theory to explain this situation of political, economic and social inequality and of domination through monopoly of power, which was perceived differentially by the ruled and the rulers.

However, each of the three scholars mentioned above has developed his argument - theoretically or otherwise - in subsequent years drawing, among other things, on their Sudanese experience and, hence, enriching further their anthropological knowledge in the same manner they had done before, when they came to the Sudan with already acquired past experiences. In this way, they - directly or indirectly - contributed to the general anthropological knowledge and to the grooming of succeeding Sudanese anthropologists some of whom have modified the ideas of their predecessors to suit their research needs and particular perspectives. Cunnison continued with the question of the relevance of anthropology, using his experience of the anthropologist/administrator and planner relationship on the question of pastoral nomadism in the Sudan, for the wider relevance of anthropology in developed/developing countries' mutual interests and co-operation. For international development projects to succeed in developing countries, social and cultural aspects have to be carefully considered, which is the anthropologist's job (Cunnison 1967). Barth early on was biologically inclined in perceiving the relationship between the pastoralists, the sedentary agriculturalists and the ecological setting, occupying one niche and symbiotically interrelated. He later expanded this view to include transformations of value between various spheres of activities to boundary maintenance and cultural identification. This has led him to argue for concentrating on the total types of activities in a region - instead of groups of people - which can be disaggregated into

sub-systems as productive regimes (systems). This approach begins with an analysis of the economy. His pioneering study of the Basseri in Iran and his analysis of ethnic boundary maintenance in Dar Fur (Republic of Sudan) have provided inspiration for many scholars who have dealt with pastoral societies and the relationship between nomadic and sedentary communities. On the other side, Asad later rejected treating “nomadic society” and “nomadic mode of production” as theoretically viable concepts, from a strict Marxist perspective. Instead, nomadism has to be treated within the category of historical social formations - more specifically, development of colonialism and the capitalist system with particular reference to the world market in modern times (Asad 1978). Pastoralist/agriculturalist relations have to be studied as production systems within structures of power relations. Power domination, exploitation, etc. are general theoretical categories, which have to be related to availability of and access to resources and to the nature and quantity of surplus production (Asad 1973a, 72). In this light, there are conceptual and perspective differences between Asad and Barth (Asad 1973b).

5. THE EMERGENCE OF SUDANESE ANTHROPOLOGISTS

The research plan set up by the department of anthropology in the early 1960s regulated that students - as part of their training - were to accompany staff doing fieldwork as research assistants. However, there was no attempted design to influence students to specialize in certain research topics or to choose any particular geographical location. The two Sudanese students of the first batch, Fahima Zahir and Taj-El-Anbia Ali El-Dawi, opted for urban sociology; both of them are of urban background. Fahima did her Ph.D. at Manchester on squatter settlement in Khartoum North (Al-Sadaty 1972), while Taj studied El Obied, the commercial capital of Western Sudan, and gained his Ph.D. from Manchester as well (El-Dawi 1971). Another early batch during the sixties comprised Abdel Ghaffar Mohamed Ahmed, Hassan Mohamed Salih and Abbas Ahmed Mohamed - all born in rural areas, which might have been behind their choice to work with pastoral nomadic groups. However, we must remember that the academic atmosphere, the international and national situations were very inviting for conducting research on pastoral nomadism. The issue of settlement of nomads was still on the agenda; it

remained then to be tackled by the Sudanese researchers themselves who thought it was high time to participate and contribute to the process of nation building in the post-independence period. In the process of change and desire to achieve modernization, a question that faced administrators and scholars was: What to do with the nomads? That is, 25-40% of the country's population being pastoral nomads according to Ahmed (1976, 3), one cannot ignore the role this sector could play in accelerating or slowing down the pace of development. Thus, the question pertained to how to improve the sector for increased productivity, efficiency and interaction in the national socio-economic, political and cultural context. Though all of these dimensions were important, the political, not only for elections, had priority.

Each of the three scholars - Abdel Ghaffar, Abbas and Hassan - looked into the conditions of a group that was geographically, historically and socio-economically different from the others: Rufa'a al-Hoi in south eastern Sudan; Hassaniya in western central Sudan and Hadendawa in the northeast, respectively. The research problem, approach and conceptual framework of each of them differed from the others though they all had politics as the focal point of their investigation. Cunnison summed up the difference between the latter studies and the former ones, done in the first two periods by expatriate staff (who were "in the society but not of it"): earlier studies on pastoralism often took the tribe as the unit of analysis. Their Sudanese students took some other unit such as the local authority area, intensifying the focus on the relationship between pastoralists and sedentaries; they were also "distinguished by a much more detailed analysis of relations between the locality and the nation, particularly in the political field" (Cunnison 1977, 18).

Whereas Abdel Ghaffar picked the issue of competition over resources and the manifestation of this in the political sphere, Abbas examined the change process the Hassaniya had undergone due to the building of Jebel Awlia Dam and, as a consequence, the establishment of an agricultural scheme leading to the settlement of part of that group. Hassan investigated different aspects of the Hadendawa social organization, and the impact of the Gash public agricultural scheme on it, to find out how political mobilization occurred and at what level. Where they went for training and with whom they studied, could partially explain those differences (Abdel Ghaffar with Barth at Bergen, Abbas at LSE with I. M. Lewis and Hassan

at Hull with Cunnison), and reveal the theoretical influence on them. Abdel Ghaffar used transactional model with its components of resource management and competition, flow charts of value and transformations, individual actors attempting to maximize their gains, etc. Abbas employed the elitist model and Hassan the classical segmentary model. However, especially in the case of Abdel Ghaffar and Abbas, they did not copy the analytical models they had used but rather greatly modified them to suit their own research problems and perspectives. For instance, Abdel Ghaffar used the notion of “unjust exploitative relations of production existing between the nomad elite and the masses” (Ahmed 1974, 10) to explain the control of resources by the small tribal elite and how they manipulated their position as intermediaries between the nomads and sedentaries to promote their own political interests at the national level through the machinery of administration (Ahmed 1974). Abbas identified the economic base supporting the tribal elite amongst the Hassaniya and the historical roots of their domination. The external factors in the form of government administration and national political parties also played an important part in sustaining the position of the elite (Mohamed 1980).

Besides the major research undertaken to gain his post-graduate degree, Abdel Ghaffar published numerous works in the form of conference papers, articles, books and consultancy reports on various aspects of pastoralism in different regions of the Sudan. In addition to the political dimension, he discussed economic contributions by pastoralists to local, regional and national economies; pastoralists’ connections and dynamics; the impact of national policies on pastoralists (e.g. establishment of agricultural schemes in their grazing areas); pastoralism as production systems within themselves and their interrelationships and dynamics with other production systems (mainly agricultural); pastoralists’ expansion into grazing areas (sometimes crossing international boundaries); and pastoralists’ performance under natural (drought) and human (war) conditions (. Ahmed 1976; Ahmed and Elnager 1995). Most of these issues are discussed with respect to debates on development elucidated by conceptual categories of “ecology”, environment, carrying capacity, division of labour, herding requirements, gender relations, herd dynamics, etc. (Ahmed and Elnager 1995). Direct fieldwork and the comparative method have been the major methodology in collecting and analysing data.

The description of this third period will be incomplete without mentioning other simultaneous developments in which non-Sudanese took part. This came mainly from Barth's Norwegian students working within a deep-rooted collaborative scheme. Three of the scholars (Gunnar Haaland, Gunnar Sörbö and Lief Manger) who are also interested in pastoral nomadism - among others - have made it in the international academic arena. All of them did their early substantial research work in the Sudan and were either through teaching or joint research programmes very closely associated with their Sudanese colleagues and/or students. Haaland contributed substantially to the field of pastoralism by showing that choices in social situations are not made according to ideological or cultural preferences only but have economic "determinants" as well. In the Fur case, when economic interests reach a certain point, it becomes more profitable for the sedentary agriculturalists to opt for pastoral nomadism as a career. This shattered the notion of "cultural determinism, sometimes expressed in ideas such as "cattle complex" (Haaland 1972). Sörbö, on the other hand, looked at a different situation from a similar angle. An expensive agricultural scheme was set up to accommodate both resettled urban Nubians from Northern Sudan and Shukriya pastoral nomads of Butana in Central Sudan. Comparing the two groups, Sörbö discovered that both of them - accused by the scheme's administration of inefficiency - had resorted to "traditional" activities and to pursuing off-scheme jobs. Using the transactional model, it could be explained how certain factors drove both groups to such actions. Since agriculture was not - profit-wise - satisfactory and seeking maximization of gains, individuals in the two groups acted in a similar way despite their different social and cultural backgrounds. Sörbö's conclusion is that it is "only when human resources are related to the environment in which they now operate that adaptation is made intelligible" (Sörbö 1976, 120). Lief Manger pushed the mode even further in the area of identity management. Investigating various aspects of social organization in the spheres of production, kinship, age sets, gender, rituals, ideas and perceptions about the world, life and personality, and individuals' and groups' understanding, interpreting and conferring meanings upon social situations, he shows how differential strategies of action and behaviour emerge. Manger alerts us that the above-stated aspects do not exist on "formal" levels only; they happen as, and within, objective social conditions of concrete forms of social interaction based on specific practices and shared meanings. This has to

be conceptualised within regional and national systems of production and identity maintenance if analyses of pastoral nomadic systems are to be illuminating (Manger et al. 1996).

The above rich, complex and cumulative repositories of experiences and functionalist, Marxist, transactionalist and other types of knowledge' have moulded the thinking of the new generation of Sudanese anthropologies. The next stage cannot be fully grasped without the above background.

6. STUDENTS OF THE FIRST SUDANESE ANTHROPOLOGISTS

Not all post-graduate students of the 1970s and beyond in the Department of Anthropology and Sociology have had interest in pastoral studies. Some took up economic themes in rural capitalism; others studied the political institutions of Nilotic groups and their relevance to development, ideological religious systems, gender issues, urban topics etc. Yet, since the 1970s there has been continuous interest in and work on pastoral nomadism due to three factors. First, there exists a rich background on the issue. Second, the drought, famines and desertification that have struck several times in the last few decades mostly affected pastoral nomadic regimes in the Sahel. Third, there is continuing interest, research effort and energy of some of the first generations such as Abdel Ghaffar, Manger and Haaland.

Of the first interesting experiences of the succeeding generations of anthropologists is the experiment which was attempted by the Minister of Local Government in the 1970s, Jaafar Bakheit, to provide nomadic groups with "marching" or "mobile" administrative officers. Sharif Harir and Salah Shazali were commissioned to conduct research to this effect on different aspects of the Rizaigat (in Western Sudan) social organization, pastoral movements and mode of livelihood in general (Ahmed and Harir 1982, 64-130). Some of their suggestions and lines of argument concerning possibility of settlement of nomads and improving the Rizaigat economic and social conditions paralleled those of Cunnison, Barth, Asad and Dyson-Hudson.

Many other themes in pastoral nomadism have also been tackled by the younger generations of anthropologists. Among these is competition over resources and shifting grazing areas due to economic and/or political

policies advanced by the state. This has led to investigation of the nature of “tribal” conflicts and the changing manifestations during the process of escalation and the mode and nature of state interference; the responses by the warring groups and their consequences on the national level (Mohamed-Salih and Harir 1994). Others examined symbolic identifications, ethnic markers and boundary-maintenance (Mohamed-Salih 1979). Again, the theme of interlinkages between pastoralists and sedentaries was further explored to include urban centres as well (Mustafa 1979; Ahmed and Harir 1982). Idris Salim has been interested in cultural expressions of pastoralism and their possible impact on the pastoralists’ actions. He also examined specialized institutions (religious educational institutions) of both men and women and their mutual effects in other developmental processes. Interest in gender issues started by Cunnison is continuing in the works of Amal Hassan. These are meant to serve as examples and they should not be viewed as exhaustive.

7. CONCLUSION

Interest in nomadic studies in the Sudan has been going in the anthropological circles for over three quarters of a century. Historical, prevailing socio-economic and political conditions, and contemporary conceptual tools and paradigms have been instrumental in the choice of themes and theoretical perspectives with which they are discussed. Though research interest in pastoral nomadism is still going strong, it is my claim that these studies are increasingly losing their theoretical rigour and falling back to functionalism and empiricism. We have to stop and reconsider the historical milieu we are operating within to justify our study of pastoral nomadism and to evaluate our contributions whether they are at all relevant practically and epistemologically.

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LAND ALLIENATION IN BORANA: SOME LAND TENURE ISSUES IN A PASTORAL CONTEXT IN ETHIOPIA

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1. INTRODUCTION

Access to land is a vitally important issue today for many people in Ethiopia who, one way or another, depend on agricultural production for their income and sustenance. There is evidence to suggest that between 85 and 90 per cent of employment in Ethiopia is tied to agricultural production including pastoralism. Land tenure issues therefore continue to be of central political and economic importance, as they have been at several crucial junctures in Ethiopia's history. The decisive significance of the land question was perhaps most explicitly expressed in the course of events leading to the Ethiopian Revolution of 1974. "Land to the Tiller" was the rallying cry of the opposition movement, which eventually prevailed and toppled the old regime. The subsequent 1975 Land Reform represents one of the most important events in modern Ethiopian history and its imprint still weighs heavily on the rural (as well as urban) communities (see Rahel, this volume). The issue of urban land ownership has come to the forefront lately, but since 1975 (after the nationalisation of "excess" urban housing), land tenure issues in Ethiopia have been thought of as a matter of concern primarily to the arable farming Sector, where the Land Reform no doubt had its most significant social and economic impact. Land tenure issues remain, however, as a central, contentious and highly flammable political theme in Ethiopia, in national as well as regional politics, in both urban and rural contexts (Ege 1997).

Access to land and other natural resources is of course as important to pastoralists as to arable farmers. Pastoralists represent some 10-12% of

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Ethiopia's population, and approximately 40% of the land area of Ethiopia is considered suitable for pastoral land use only. However, in line with the general social and political marginalisation of pastoralists in Ethiopia, land tenure issues as they refer to pastoral resources and grazing lands are not given the same attention in public policy. In the 1975 Land Reform Proclamation, for instance, only 4 short articles (out of 33) are directed at the situation in the "nomadic lands"! In the new Ethiopian Constitution of 1994, no particular mention is made of the pastoral areas at all.

There are of course some good reasons for the pre-eminent attention given to agricultural lands in land tenure legislation in Ethiopia. Land is the most important, valuable and scarce capital in agricultural production, on which the majority of the population depends. In pastoralism the most important capital is livestock, not land! Barth (1973, 13) supports this when he states "...the time required to extract value from land is great in agriculture, so the control over land is essential, while the time required by grazing is minimal, so control may well be precarious and ad hoc."

This observation also reflects the empirical facts of land tenure systems in many situations in Eastern Africa. While access to land is important to agriculturalists and pastoralists alike, the institutional arrangements governing access to and control over land resources are usually markedly different. Codified land tenure legislation is primarily preoccupied with tenure of agricultural lands; when land issues are brought into the public domain, such as in policy debates, legislation or litigation, the issues usually concern agricultural lands. Pastoral land tenure is at best a simplified version of the tenure regime in the agricultural areas; a situation where tenure rights to pastoral lands are simply appropriated and held by the state is very common. The exact content of the rights appropriated by the state is a moot point. Pastoralists may have more or less clearly defined rights of access and use, but the pre-eminence of the rights of the state to do as it pleases with pastoral lands is usually not in question. Sometimes user rights are explicitly attached to social groups, i.e., land rights (such as they are) are an aspect of group membership (often according to some definition of ethnic groups) and sometimes the state even creates such groups¹ for the specific purpose of owning land and developing it. At present, land rights in the pastoral areas of Ethiopia seem to be a matter of loosely defined group rights which are granted to

named ethnic groups by the hegemonic state without taking locally evolved tenure rights, if and where these exist, much into consideration.

In strictly legal terms, all pastoral lands are owned by the state on behalf of the peoples of Ethiopia. The 1994 Constitution guarantees access to land for all Ethiopians who want to earn a living from farming, but leaves it to subsidiary legislation to specify the terms and conditions under which land is made available to users. Such subsidiary legislation has not yet been promulgated in the Oromiya Regional State, which encompasses several pastoral societies, including Borana. The general provisions of the Constitution thus grant the state plenty of leeway to do as it pleases with pastoral lands.

2. LAND TENURE ARRANGEMENTS

Ethiopia has historically been home to complex land tenure systems governing ownership, control, administration and extraction of value from agricultural lands; these issues have been far less elaborated on as far as the pastoral lands are concerned. Although approximately half of the land area of Ethiopia today is primarily being used for pastoral production, and is being inhabited by pastoral societies, this has of course not always been so. The much smaller historical “core” areas of Ethiopia are in the agricultural north, and the Ethiopian state has always rested on an agricultural foundation. Ethiopian traditions, as well as current practices with regard to land tenure, therefore have a strong agricultural bias. The distribution of land rights were of central political and economic importance in the context of the agricultural societies of Northern and Central Ethiopia and all subsequent land tenure legislation and practical tenure arrangements of the Ethiopian state have inevitably been strongly influenced by this background.

The pastoral areas of Ethiopia have only recently been incorporated into the Ethiopian state, over the past century or so, through military campaigns of various intensities. Pastoral lands were thus seen by the Ethiopian state as the legitimate spoils of war and have ever since incorporation simply been classified as land belonging to the Ethiopian state. As such, they were incorporated into Ethiopian legislation and the Ethiopian land tenure system. Even at this early stage, however, user rights were granted to the various ethnic groups that submitted to the Ethiopian colonial power.

At the time of incorporation, pastoral lands were granted as fiefs to the feudal retainers of Menelik II, in reward for their services, to ensure their loyalty and to secure them a source of income. It is probably useful to think of these grants in terms of taxation rights, as distinct from ownership rights. Separate rights of taxation, which represented a distinct layer in a multi-layered system of rights, with different actors or agents (the Crown, the feudal nobility, the Church, feudal retainers, farmers and tenants) holding different rights to the same piece of land, were recognised in the feudal agricultural societies of Ethiopia. Taxation rights, which involved different types of land tax with parts of the proceeds going to the Crown and parts being used for the administration of the land in question (and parts being the personal income of the retainer in question) must be distinguished from ownership and/or user rights. In this respect pastoral land tenure differed from land tenure elsewhere. Taxation rights in the pastoral areas were clearly temporary grants awarded at the discretion of the State, as was originally the case also in the agricultural communities. More importantly, however, in the newly acquired pastoral areas there was not enough time for these rights to blur into any aspect of semi-permanent and inheritable rights such as had evolved in the central agricultural areas in Central and Northern Ethiopia. Later, with the modernisation and bureaucratisation of the Ethiopian administration, the rights of taxation were withdrawn from the feudal elite and reverted to the state without any residual ownership rights remaining in the pastoral sector. The former feudal retainers did not claim ownership rights, or any other residual user rights, to the land to which they had been granted taxation rights. To the extent this happened at all in the pastoral areas, ownership rights were retained by soldier-settlers only in the pockets of agricultural lands that had been created around some of the military garrison towns.

Because of ecological constraints, primarily poor and erratic rainfall, the pastoral areas (except for these more generously endowed pockets of good land) could not be used for agricultural production and the issue of land ownership as such did not arise. In other conquered areas, where post-conquest land awards involved large tracts of productive agricultural lands, the distinction between income arising from taxation rights and income arising from ownership was more confused. In these areas, ownership rights were retained even if taxation rights reverted to the state. In the conquered areas of Southern Ethiopia that could be used for arable

agriculture, extensive sharecropping arrangements became the normal mechanism of exploitation, securing the nobility and their retainers an income even after the modernisation of the administration and the withdrawal of taxation rights. Sharecropping contracts, which stipulated land rent to the nominal owner of between half and three quarters of the annual production were common.²

Hence, the less favourable ecological conditions in the pastoral areas, perhaps in combination with an agricultural bias in the economic outlook of the colonisers, seem to have protected the pastoralists from the kind of harsh economic exploitation experienced by sharecroppers in the agricultural areas of Southern Ethiopia. Land ownership in the arid and hot lowlands was of limited interest to the Ethiopian feudal soldier-settlers. One should also note that the Ethiopian state, which transferred control of the most important capital in agriculture (i.e., land) to the soldier-settlers in other colonial contexts in Southern Ethiopia, did not attempt to confiscate the equivalent capital asset in pastoralism, which is livestock. When the animals were confiscated (which happened frequently), they were simply taken out of the pastoral contexts and consumed. There seem to have been very few examples (if any) of soldier-settlers engaging in pastoral production as an economic enterprise, e.g., based on confiscated livestock and corvee labour, which would have been the parallel to agricultural sharecropping. There were obviously economic linkages between the colonisers and the pastoralists (trade, and contract herding on behalf of townspeople) but the soldier-settlers, who became a new land-owning elite in the agricultural areas, were thus never integrated into the local economy in the pastoral areas of Ethiopia.

One result of this situation is the paradox that Ethiopian pastoralists, who inhabit the poorest parts of the country as far as natural resources and productivity is concerned, have probably enjoyed a better standard of living, in terms of health and nutrition, as well as access to natural resources and economic assets, than neighbouring agricultural communities living on much more productive land.

3. THE BORANA

The Borana³ were incorporated into the Ethiopian Empire through a swift and not particularly violent military campaign conducted by Emperor Menelik II in 1897 primarily to counter the threat of British advances

from the South. The Borana did not have access to modern firearms and they had been thoroughly terrorised by the devastating effects of rifle fire a few years earlier, so they quickly surrendered to Menelik's forces. Borana became the fief of one of Menelik's generals, who received it as a reward for his valour in the Battle of Adwa. A system of indirect rule was established, through which the appointed Borana representatives of the suzerain feudal lord were charged with the maintenance of peace as well as the collection and delivery of local taxes and tribute. Part of these taxes went to maintain a small garrison in Borana, but in general, the Borana were left to their own devices.

There was actually minimal interference from the central government in the affairs of Borana, from the conquest in 1897, through the period of feudal administration before World War II and the period of bureaucratic modernisation after the war, right up to the Ethiopian Revolution in 1974. The main concern of the Ethiopian state throughout this period was the establishment and maintenance of the border with Kenya, while the relationship to the Borana pastoralists was characterised more by benign neglect. In spite of its great wealth in livestock, Borana was isolated and not easily accessible, and since it was not easily exploitable through the usual means of soldier-settler agriculture, Borana was probably not even perceived of as a significant source of income.

As far as the Borana themselves were concerned, the Ethiopian occupation meant a tax burden⁴ and the presence of some soldiers in the small garrison towns. There were also a number of soldier-farmers in the most favourable pockets of land where arable farming was possible. The appointment of feudal representatives (called *balabbats*) from the lineages of the semi-sacred and ideally apolitical Kallus⁵ also represented a clear break with Borana tradition, but in general terms the Borana were free to run their own affairs. In local terms, the greatest difficulties were created by the appointed individuals from the Kallu's lineage, who started to use the office of *balabbat* to gain illegitimate and undue influence over other parts of the Borana socio-political system, e.g. the selection of Gada⁶ officials.

The Ethiopian state in effect set up a system of indirect rule in Borana, with the *balabbats* mediating relations between the Borana and the Ethiopian state in a narrow band of issues primarily concerned with the maintenance of local law and order as well as taxation. In the feudal era,

before World War II, taxation involved a comparatively broad spectrum of goods and services (including corvee labour for local soldier-settlers). Later on, with the introduction of a bureaucratic, salaried national administration, taxes were paid in cash. However, beyond the small number of issues, which were seen as “government business” (taxation, security), the Borana were able to maintain their own traditions and institutions in all-important spheres of life. Most importantly, resource management, in particular accesses to and use of water and pasture, was governed by Borana institutions. The soldier-settlers had their attention on arable farming and they did not attempt to establish themselves in the pastoral sector. In retrospect, it seems that the pastoral economy of the Borana was sufficiently robust to carry the additional burden of Ethiopian taxation, without too much local hardship. Taxation certainly did not reach levels that threatened animal reproduction and herd growth or that undermined the local livestock economy.

Incorporation into the Ethiopian state did mean an additional tax burden on the Borana, in addition to the voluntary contributions⁷ regularly raised by the Borana themselves in support of their own social institutions. There were, however, also some advantages. The Ethiopian state assumed responsibility for local security and at a later stage assigned and demarcated home territories for the various competing pastoral groups, and forcibly maintained these borders. For the Borana this implied military assistance and protection from the expansion of the Somali groups along the eastern borders of their territory. Since the middle of the 19th century, the once dominant Borana had been fighting a losing battle against the Somali advance and lost large areas of mostly wet-season pastures in the lowlands. The Ethiopian maintenance of the status quo clearly benefited the Borana. I have earlier pointed out how the Borana’s success in containing the Somali advances in this century primarily depended on the Borana submitting to the Ethiopian state (Helland 1996, 145-49). Without the support and active intervention of the Ethiopian state, the Borana would most likely have lost even more land, as well as the all-important permanent wells in the dry-season areas.

4. PROTECTING THE BORDERS

As pointed out above, land tenure in a pastoral situation must meet somewhat different functional requirements than is the case in agriculture.

Pastoral land use is largely a matter of gaining access to resources for quite limited periods (i.e. the time required by grazing). Particularly under arid conditions, pastoral land use must be understood in terms of opportunistic resource exploitation and extraction of value from a volatile and highly unpredictable source rather than long-term management and care of land resources (Behnke, Scoones, and Kerven, 1993; Scoones 1995). Given the great variation and great spatial distribution of rainfall, there are in a pastoral situation pronounced disadvantages to a land tenure system, which ties specific individuals or groups of people to specific parcels of land. Land rights must therefore be articulated at the level of larger units, both in terms of people and land, leaving individuals with the necessary freedom and flexibility to seek out pasture and water where they occur, within such larger units.

Hence, pastoral land rights must be examined from at least two perspectives. For ecological reasons, a group's rights of access to a larger territorial unit are obviously important, so the issues of territorial integrity and the protection of the land from invaders are important. However, in economic terms pastoral producers are responsible for their individual pastoral enterprises, so the question of gaining access and user rights to specific resources within the group territory, in competition with other similarly constituted individual units, is equally important. In Borana, the issue of territorial integrity and protection has since the colonisation of Borana depended on the Ethiopian state. The state accepted that the Borana as a group have user rights to their land, and has, on several occasions, upheld this recognition. As long as the Borana paid their taxes and otherwise kept the peace, there was, thus, no challenge to these user rights as far as the Ethiopian state was concerned. The Borana were able to keep their main competitors at bay (obviously more by implication than by design) by adapting to the political demands of the feudal empire of Menelik II, to the modernising bureaucracy of Haile Selassie I and the socialist state of Mengistu Haile Mariam. There were many incidents of tension and encroachment along the borders, particularly from the Somali groups to the east throughout this period, but the Ethiopian state has largely maintained the territorial integrity of Borana, particularly since World War II.

A major change took place with the demise of Mengistu Haile Mariam and the ascendancy of the current government, when the Borana for once found themselves out-manoeuvred by their Somali competitors:

The *Derg* regime had of course beaten back the most serious challenge in modern times to the territorial integrity of both the Ethiopian state and the Borana, in the 1977-78 war against the Somali. The beginning of the *Derg* era also coincided with the construction of two all-weather roads into Borana, which increased commerce and better integration with the rest of Ethiopia, including increased activity in both public and non-government development projects and famine relief. With the establishment of the People's Democratic Republic of Ethiopia in 1987, Borana even became a separate province. The *Derg* policy of encouraging local party structures (under the strict control of the official Worker's Party) and the opportunities that the significantly expanded state presence in Borana offered to aspiring educated young Borana, to a large degree solidified Borana support for the *Derg*. This was so in spite of high demands for taxes (and conscripts for the war in the North) and "voluntary contributions" for various unpopular causes. The *Derg* regime offered employment and career opportunities to hundreds of educated (and not so educated) Borana who staffed the various structures of the state and the party in Borana. This new layer of civil servants and functionaries had thus replaced the *balabbats* in mediating relations between the Borana and the state. Although the scope of their activities obviously were circumscribed by state policies and party directives, they secured the Borana a public voice in their relations with the state, to the extent this was possible at all during the *Derg* regime.

With the change of government in 1991, the Borana as a group became politically suspect. Pastoralists going about their regular business in the bush were probably considerably less concerned about the changes than were the Borana state employees, party cadres and others with a stake in the existing system. Some of the latter even called for armed resistance to the new government. This never became more than a minor irritant.

At the same time, some of the Somali groups declared their loyalty to the new government, thus enlisting government support for their cause and turning the tables on the Borana! Locally this implied the replacement of large numbers of Borana civil servants with fresh recruits from various minority groups residing in Borana⁸, while at the national level Somali

territorial claims to large tracts of disputed border areas were accepted as legitimate! Parts of Borana were thus transferred to the newly formed Somali Regional State.

Perhaps one should not make too much of the significance of these border changes, because the Somali had actually “created political facts on the ground” by pushing quite far towards the west in the turmoil of the last few years of the *Derg* era. Nevertheless, the lack of national political support for the Borana cause, indicated by this change, has ramifications for the distribution of land rights within the Borana areas as well.

5. LAND RIGHTS WITHIN BORANA

In Borana, land rights have always been an aspect of group membership, both when land rights were defined solely by Borana jurisprudence, as well as later, when locally defined land rights became secondary to national land tenure legislation. The land rights of individual Borana pastoralists were thus safeguarded as an aspect of Borana group rights, in particular in the period up to the 1975 Land Reform Proclamation. An administrative reform followed in the wake of the Land Reform, subdividing the Borana lands into a large number of “peasant associations”. Initially these were known as ‘pastoral “associations”’ but this distinction was soon forgotten, since national legislation or national policies never made any distinctions between the two. Moreover, as the land management aspects of the Land Reform gave way to concerns of political control and the mobilisation of support in the peasant associations (including the extortion of increasing amounts of “voluntary” economic contributions), the distinction between the two forms of association receded completely.

With the 1975 Land Reform Proclamation, land rights also in the pastoral areas became contingent on membership in the peasant/pastoral association, as was the case in the agricultural areas, but any practical implementation of this proved difficult and was soon ignored. It was for example suggested at one stage that the pastoralists should apply to the peasant/pastoral association for permission to move across the borders of the association, but this was not implemented.

Although the *Derg* regime supported the status quo as far as the border with the Somali was concerned, and the Land Reform Proclamation

allowed nomadic people rights to the land they customarily use for grazing or other purposes related to agriculture, the *Derg* period saw the start of a number of processes which have led to extensive land losses within Borana. The Borana have only been able to maintain their own tenure arrangements on the grazing lands, which the state let them have. Land, which the state needed for other purposes, e.g. roads, buildings, resettlement of the destitute, demarcation of ranches and holding grounds or other development projects, was simply confiscated. Strictly speaking, there is no doubt about the legality of these practices, as far as national law is concerned, but from the Borana point of view, these confiscations meant a reduction in the amount of grazing land available.

However, there were some mitigating circumstances. First, the amount of land confiscated was limited, even if the land in question often was strategically important, e.g. as important dry-season reserves. Second, land losses were often compensated by other development inputs, in particular the digging of stock ponds in formerly inaccessible areas (albeit with long-term negative consequences). Third, land losses were usually a matter of reserving land for various public undertakings, which were presented by the educated Borana leadership as contributing to the development and prosperity of the Borana as a whole. Another aspect of "development" in these terms was the substantial quantities of famine relief assistance and food-for-work projects distributed in Borana since 1973, which more often than not was procured and distributed by international NGO's working in Borana, that the government functionaries were eager to present as government generosity to the Borana!

There were obviously some protests and it is very difficult to see these land losses as voluntary contributions by the community to the development of Borana. However, there were public consultations (even if these often were simply announcements of the government's intentions) and the land withdrawn from the public access was intended for public benefit.

Perhaps most importantly, the confiscation of land and resources did rarely involve the crucially important water sources. Access to water and rights to water in the permanent wells are the major determinants governing land use in Borana. In most of the dry-season areas of Borana, the amount of land available exceeded the watering capacity of the permanent wells. The Borana could therefore afford to give up some land,

as long as the watering capacity in the wells remained constant. There were some attempts by the peasant/pastoral association to take over management of the wells but this was soon abandoned. The Borana wells remained under Borana management according to the resource tenure rules evolved by the Borana themselves.

Kin groups or other social formations in Borana have not attempted to claim exclusive rights to particular tracts of land within the larger area under Borana control. Ownership to water sources, however, is much more clearly defined. The main principle for establishing ownership rights to water is by investing labour in the source, through excavation, re-excavation or maintenance. Man-made stock ponds, as well as deep wells, were therefore known as belonging to specific clans, with a specific relationship known as *konfi*⁹ obtaining between the living representatives of a specific lineage within the clan and the well itself. *Konfi* rights do not involve exclusive rights of use and access, but they are rather expressed as a loosely defined responsibility for the well. Ritual responsibilities are probably a more important aspect of *konfi* rights than the practical management of the well, which will be collectively undertaken by the users of the well, under the supervision of elected officers and in accordance with Borana traditions (*ada-seera* Borana).

To sum up, as far as land tenure issues are concerned, the relationship of the Borana to the Ethiopian state has implied the following:

- The Ethiopian state assumed (and has maintained) suzerainty over all land in Borana, but has granted user rights to the Borana pastoralists. Government rights have pre-eminence over local user rights. Some land has been withdrawn from regular pastoral land use by the government for various public purposes.
- The Ethiopian state has assumed responsibility for security and for the maintenance of borders to other ethnic groups. The government has been moderately successful in upholding the status quo with regard to the distribution of grazing lands between the various competing ethnic groups in the region. Persistent pressures from Somali groups along the eastern border of Boranaland and adept political dealing in a confused political situation resulted in the formal recognition of Somali claims to areas historically controlled by the Borana.

Considerable Borana areas have thus been removed from access and use through the interventions of the Ethiopian state, even if the implicit alliance between the Borana and the Ethiopian state overall probably has been beneficial, particularly as a means to checking the Somali expansion.

6. A CONTINUOUS PROCESS OF LAND ALIENATION

The land losses, which the Borana as a group had suffered at the level of the larger territorial unit, have attracted most attention (see Yacob Arsano, 1997). These losses have on the one hand come about as a result of macro-political competition and moved inter-ethnic borders, but there are also processes at play within Borana which have removed considerable tracts of land from Borana land use. For the sake of convenience, these may all be called “development-related”, since they come about as the direct result of development interventions. Finally, land and pasture is being removed from the Borana pastoral system through various processes, which may be seen as secondary or unintended consequences of events relating to the integration of Borana into Ethiopia, including development projects.

The most serious threat to Borana pastures today seem to come from bush encroachment. One estimate (Coppock 1994) indicates that as much as 40% of the remaining pastures in Borana is invaded by bush. Bush encroachment is thus in the process of severely reducing range productivity and the amount of fodder produced for livestock production. Bush encroachment will remove significant amounts of land from the pastoral ecology of the Borana, unless countered. Countering it seems to be difficult, partly because of the scale of the problem and partly because there seem to be few economically feasible, technical solutions available at present to combat this threat. Furthermore, there still seem to be disagreements on how to explain the bush encroachments (Gufu Oba 1998). Some explanations relate the increasing bush encroachment to a ban on range burning (which used to be commonly practised) introduced by the Ethiopian administration some decades ago. Other explanations emphasise the increasing livestock densities on the Borana pastures in the same period, caused by improved veterinary services, widespread water development and the regular provision of famine relief. Areas that previously were accessible only in the wet season have become available for use throughout the year because of development projects, which have

dug stock ponds and re-excavated collapsed wells. More recently, cement-lined water tanks have become a feature of the Borana rangelands. The former disappeared. One result of this is the removal of so much forage that there is no dry matter left on the ground to fuel fires, even if regular fire regimes were reintroduced.

Another development-driven process with an impact on land use in Borana is the expansion of farming into the rangelands. Although the soldier-settlers introduced farming into Borana a long time ago, they at the same time occupied the lands where regular farming was possible. But under the dual impetus of various development projects introducing dryland farming techniques and quick-maturing varieties of maize and sorghum and drought-induced losses in the livestock sector (which may have become more vulnerable to drought because of herd growth and overgrazing) many Borana have taken up farming in the most favourable parts of the remaining rangelands. This primarily involves simple farming, with minimum effort, on impeded drainages and rich bottomlands. These plots of land may not involve very extensive areas, but the spread of farming removes patches of rich and strategically important vegetation from pastoral land use. This change in land use is protected by the existing legislation, under which the payment of an agricultural tax for plots even in the pastoral areas provides legal user rights for the growing season and protection against encroachment from competitors, including pastoralists. These agricultural plots may thus be fenced off, even if the agricultural operation itself is not successful, thus removing the land from common access.

Agriculture is spreading in the wetter parts of the rangelands, apparently as a means of economic diversification. The scale of this expansion is not known, but it seems reasonable to assume that it will limit itself as the amounts of land with an agricultural potential is limited. Nevertheless, the amount of land that is fenced off is considerably larger than the land put to alternative use. Withdrawal of land from common access by fencing it off and claiming exclusive rights to the land is becoming increasingly common.

The introduction of cement-lined water tanks in the Borana rangelands has stimulated private investment by rich herd-owners in water development. Security of tenure of course becomes important in such investment projects. The protection of the water catchment's areas feeding

the tank is also important. Both considerations encourage fencing. Fencing is becoming increasingly acceptable to the local communities, in particular to protect investments like houses, prepared agricultural plots, water ponds and water tanks, although fencing as such does not, strictly speaking, change tenure rights, according to the applicable national legislation.

Fencing off enclosures to reserve forage resources for particular purposes is also becoming increasingly common. One of the few exceptions to the free access to pasture which all Borana enjoyed were the occasional patches of good forage near Borana hamlets, which the inhabitants set aside as a pasture for calves. In former times, it seems, inhabitants could count on their exclusive rights to these calf patches being respected as part of the *ada-seera* Borana and being upheld by Borana conflict-solving mechanisms. These days, however, the calf patches have to be physically encased in thorn-bush fences. Such enclosures have become very popular, and large parts of the free ranges of Borana are being removed from common access. Again, the extent of these practices is not known, and depending on the details of who is involved, the enclosures may be seen either as attempts by individual to appropriate common resources, or as attempts by village communities to put resources in the vicinity under some kind of management. This may contribute to better land management and increasing production, particularly for those who enclose pasturelands. However, there is obviously a risk in this process in that considerable parts of the Borana population may be excluded from the resources they need for their survival and lose the land rights they currently hold.

Finally, the most recent development in Borana is the alienation of Borana lands for purposes that do not seem to benefit the Borana themselves. Over the past year or so, the Oromiya Regional State has tried to attract and encourage private investment in various commercial ventures, for economic growth and increased welfare. The full effects of these initiatives have not shown themselves, but at this early stage, the first moves have involved local businesspersons fencing off and claiming exclusive rights to quite large tracts of land. The Oromiya Regional State is charged with owning/controlling land on behalf of its citizens, but beyond the wide mandate granted by the Constitution, the subsidiary legislation governing the alienation of land to individuals has not yet been

promulgated. The detachment of individual land rights (for the “investors”) from the common users rights of the Borana therefore seems to involve actions at two levels: investors have to seek local support/permission from peasant association leaders to fence off land, and on the strength of this, seek official sanction from the Regional State. So far, only a few “commercial plots” have actually been demarcated (but their legal status is in serious doubt and is being challenged by local leaders¹⁰) but investments have not yet taken place. The nature of the commercial venture proposed by these local “investors” is also unclear and because the whole process of land alienation seems to be hidden from public insight, rumours are rife! There are of course a number of commercial ventures which could be beneficial to the Borana as a whole, and for which quite legitimate request for land could be made (i.e., increased commercialisation and marketing of Borana livestock will need land for sales yards, holding grounds, feed lots, fattening lots, livestock trekking routes etc.). Public development projects have appropriated land in Borana for such purposes before (and failed) and in principle there is no reason why private interests could not try again! Nevertheless, the land issue is so contentious, even in these pastoral contexts, that they must be brought out in public discussions and be resolved in ways, which are seen as legitimate according to local precepts.

7. CONCLUSIONS

Pastoral land rights are not much in the public debate on land tenure issues in Ethiopia. There are some good reasons for this. Pastoral land tenure is far less complex and far less contentious than the tenure arrangements in the agricultural sector. Due to the erratic and random distribution of natural resources in the pastoral areas of Ethiopia, the main issue, as far as pastoral producers are concerned, is secure access within large land units to allow the pastoralists the flexibility they need to live in these marginal lands. The Ethiopian state has taken only to a minimal extent the particular requirements of pastoralists into consideration in its land tenure legislation. Pastoral land rights are unclear group user rights to such lands as the state sees fit to grant the pastoral groups. The state has, however, never attempted to define, grant or regulate the land rights of individual pastoralists within the ethnic group or within the larger land units to which they have common access.

The rights of the state have pre-eminence over group rights and the problem which seems to emerge now in Borana is that the state seems to exercise these rights to the detriment of the Borana both as a group as well as individually. The eastern border with the Somali Regional State has been changed without any consideration to Borana user rights, and land grants for a variety of different purposes, including governmental and non-governmental development projects as well as commercial ventures, are being allocated without Borana user rights being considered or Borana objections being heard!

However, parallel to the process of decaying land rights, probably far more land is being removed from the Borana pastoral ecology through other process. These do not primarily arise from the relations between the Borana and the state, or at least only indirectly so. Bush encroachment has been mentioned as probably the most imminent and widespread threat to pastoral production in Borana but the expansion of agriculture into the rangelands and the on-going enclosure of the richest parts of the remaining pastures for the exclusive benefit of individuals or smaller groups of people also pose significant problems.

The Borana have been able to maintain a viable and robust pastoral economy in Southern Ethiopia for several centuries. After their military defeat and incorporation into the Ethiopian state at the turn of this century, there seem to have been few changes to the internal organisation of the Borana. Land use patterns were upheld, more or less, as they were before the conquest, and the social institutions underpinning this adaptation were maintained intact. I have argued elsewhere (Helland 1998) that the major threat to Borana livelihoods do not necessarily stem from shrinking pastures and reduced productivity, but from the incapacitation of important Borana social institutions! The authority of the *ada-seera* Borana is corded and pan-Borana solidarity is being worn down. The Borana have seen their sons removed from political and administrative positions in the local administration and seem to have minimal influence over the events, which shape the welfare and destiny of the Borana.

Access to land may be less of an issue for pastoralists than it is for farmers, but land is still critically important to the pastoral enterprise. Without secure access to land, pastoralists cannot survive. The Borana of Southern Ethiopia seem to be caught between a political process which

has resulted in severe shrinkages of the area available to them, and ecological processes which reduce the overall productivity of the remaining rangelands. In both cases, the result is increasing population densities (of both people and livestock) in an area in which adaptation demands low population densities. Therefore, the Borana as a group can ill afford to give up more land, or lose more land to investors and other individuals who are eager to secure individual rights to common benefits. For the near future, the Borana must live off their land and the various ongoing processes of land alienation that have been discussed here do not help the future of pastoralism in Borana.

NOTE

1. Good examples are the groups owing “group ranches” in Kenya, or the “Peasant (Pastoral) Associations” created in Ethiopia in the wake of the 1975 Land Reform.
2. This is obviously a very brief overview of a vastly more complex situation
3. The Borana are one of the many Oromo groups of Ethiopia. They inhabit parts of Southern Ethiopia and Northern Kenya.
4. The taxes and corvee labour paid by the Borana were insignificant compared to the resources extracted from sharecropping peasants further north.
5. The Kallu is a religious/ritual leader. There are two main Kallus, from the two moieties into which Borana is organised, as well as several minor ones.
6. The Gada is an elaborate generation-grading system found in many Oromo societies.
7. Contributions were usually voluntary, but in some cases the amount to be contributed was determined by public assemblies, e.g. on the basis of clans
8. These local replacements reflected the national confrontation between the Oromo Liberation Front (OLF), which opposed the national government and the Oromo People's Democratic Organization, which supported it.
9. The term *konfi* also refers to the digging stick, which the previously non-agricultural Borana only used for digging graves, as well as wells and stock ponds.

10. Gufu Oba cites one on-going case where a letter of protest has been signed by 127 local elders (Gufu Oba 1998, 68).

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AN OVERVIEW OF ROOT CAUSES OF PROBLEMS THAT CURRENTLY AFFECT BORANA PASTORALISTS OF SOUTHERN ETHIOPIA

*Getachew Kassa**

1. INTRODUCTION

The Borana Oromo and the Somali are pastoralists who inhabit the semi-arid, arid lands and river valleys of eastern and southern Ethiopia. Extremely erratic and unevenly distributed rainfall, periodic droughts and famines characterize their homelands in Ethiopia. The ecological and climatic conditions of these areas have demanded the use of extensive rangelands to support mobility based livestock management and access to varied resources. Until recently, in Borana society livestock were owned individually, but grazing land and other basic resources have been held collectively by the groups and control of these resources is vested in the traditional leadership. A number of studies demonstrate that Borana land and natural resources have been sufficient in providing security of tenure and use as well as mobility (Getachew 1996, 1998; Helland 1998). This has enabled the sustainable use of rangeland resources. Besides, the Borana have the most efficient and ecologically friendly livestock rearing and management practices (Helland 1978, 1980, 1998). In particular, Borana water tenure, use and management institutions have been until recently remarkably efficient in dealing with scarcity, well adapted to the circumstances of the natural environment and the needs of the people (Helland 1980). The Borana controlled the access to wet-season pastures and dry-season reserves. Thus, they have been more concerned in the effective control and management of water points, especially, excavated

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wells. Until the scarcity of land in the recent decade, grazing, misuse and mismanagement of resources were not pressing issues to the Borana.

However, beginning from the days of their integration into the Ethiopian administration, the Borana increasingly faced problems of land encroachment and reduction of their land and other resource bases. These pressures came from external encroachments resulting from government land reforms and development interventions, aimed at transforming their land tenure system and their pastoralist way of life. Other pressures came from continued encroachments by other users. These different user and interest groups have been encouraged to scramble for the high-potential dry-season grazing land and water resources of Borana pastoralists mainly due to current and previous government land (nationalization/or privatisation) reform, development and administrative policies. In addition, there has been successive drought and famine and inter-ethnic conflicts, and these have played their part in the reduction of their grazing resources and in encouraging change in their adaptations. Such pressures have precipitated land and resource tenure insecurity, and increasing resource related inter- and intra-ethnic group competitions and conflicts. These developments combined with the frequent conflicts between Borana and their neighbours (i.e., Degodia, Marrehan, Garri, Gujji, Arsi) and neglect on the part of government officials to settle these inter-ethnic group resource conflicts are affecting the very survival of the Borana and their neighbours and contributing to the regional crisis (Getachew 1996).

Borana pastoralists started to take steps to defend their collective resources, pastoral way of life and cultural identity. Some of their strategies of self-defence include spontaneous settlement and enclosure of parts of the remaining rangeland (especially the dry season grazing reserves and water complexes), engagement in opportunistic farming, and use of violent strategies (war) against all those who encroached upon their resources. The use of war as adaptation to defend meagre resources from outside invaders has become very common not only to the Borana but to also other pastoralists.

In the light of the above background, the paper aims: (1) to highlight the competing and conflicting land claims of these pastoralists with other claimants (and users) in their historical context; (2) to address the “self-defence” measures as a form of adaptation of Borana pastoralists to an increased encroachment on their collective resources by other groups, the

government and their own people (farmers); (3) to look into the responses of the national government and others; and (4) to discuss alternative policy interventions which might be considered to tackle the problems of the Borana and other disadvantaged pastoral groups and agro-pastoralists in Ethiopia and the drylands of East Africa.

2. BORANA PASTORALISM: AN OVERVIEW

The Borana and their neighbours in southern Ethiopia derive their livelihood from pastoral production of mixed-livestock consisting of cattle, camels, goats and sheep. Pastoralism has been until recently the most viable economic adaptation of the Borana. The Borana maintain large size herds of livestock (cattle, goats and sheep and few camels) as a security against the possibility of natural disasters and of raids by their neighbours. They practice an efficient stock management system based on geographical mobility; stock transfer institutions, clan and community based sharing practices, patron-client relations, and effective management of collective resources and provision of security through maintaining peaceful inter-ethnic group relationships.

Until recently, the Borana's management and use of livestock and natural resources have been socially, economically and environmentally viable and sustainable to the drylands of southern Ethiopia. However, this system started to undergo radical changes due to various factors. I believe that the current problems of the Borana cannot be explained unless one looks into their past experience. The following part of this paper is concerned with the economic, social and political change processes that the Borana encountered and how these processes have partly contributed to the current problems of Borana pastoralism and society and the various responses of the Borana to the pressures and their implications.

3. ADMINISTRATIVE AND POLITICAL MEASURES (1897-1975)

Until the conquest of Borana land by forces of Emperor Menelik II of Ethiopia in 1897, the grazing territory of Borana covered vast areas of today's southern and southeastern Ethiopia, northern and northeastern Kenya and southwestern Somalia. Borana land was conquered and brought under the rule of the Ethiopian Empire in 1897. The Borana surrendered to their conquerors with little resistance at Sodda. The Borana

areas were granted by Emperor Menelik II to one of his generals, Fitawrari Habte Ghiorgis (Getachew 1983; Maud 1904; Tsehay 1969).

4. THE CREATION OF TRIBAL RESERVES FOR INHABITANTS OF BORANA REGION

The Government of Ethiopia has a full property right over land considered as nomadic area. By law, the state became the political-administrative owner of all land within its sovereign territory. Thus, the Borana region remained fief (*riste-gult*) of Fitawrari Habte Ghiorgis until 1924 and, later, Ras Desta Damtew until the end of the Italian occupation in 1941. These feudal aristocrats administered the land on behalf of the Imperial State of Ethiopia. But all inhabitants of their fiefdom, the province (*rist-gult*), have been given usufruct rights as long as they pay taxes and accept the over lordship of the Ethiopian State (Helland 1998, 63).

5. GOVERNMENT LAND GRANTS TO EARLY SETTLERS

Some land grants have been made in the early days of the conquest, primarily to the soldiers and the first settlers. These grants were made in the most fertile parts of the dry-season grazing lands. The scope of land alienation and land allocation for settler farmers was too limited in scale to have an impact on pastoral Borana system. However, these land grants were made by withdrawing dry-season grazing land not previously used for agriculture. The Borana were able to avoid the *gabbar* system (agricultural serfdom) that the conquerors wanted to impose on them. The Borana avoided sharecropping contracts (*equl-arash*), which the conquerors and settlers introduced in many newly conquered parts of southern Ethiopia. They instead paid their feudal retainers (*gult-geezi* and *malkagna*) taxes and tributes in the form of livestock, forest products (honey, incense, myrrh), and obligatory labour services for a fixed number of days (to build houses and give transport and guidance services to the officials and soldiers). At the same time, some Borana migrated into northern Kenya to avoid the Ethiopian rule. However, Helland (this volume) argued that the tax burden imposed on the Borana was not as such exploitative compared to that on farming groups to the north of Borana.

Borana resistance to engage in sedentary agriculture and serfdom encouraged the feudal governors and settlers to bring in migrant farm

labourers from the neighbouring farming communities (the Burji and Konso) and from parts of the central highlands of Ethiopia, particularly Shewa. This feudal land tenure system was maintained intact up to the time of the Italian occupation of Ethiopia. During the brief Italian administration, the Borana started to face violent attacks from their neighbours (Degodia and other Somali), Gujji and Arsi Oromo recruits to the Italian army. These groups used the Italian administrative policy and military support to occupy the eastern and northeastern parts of Borana grazing lands in the Liban Zone.

6. THE CREATION OF TRIBAL AREAS

After the Italians were expelled from the region, there was intensive instability caused by inter-ethnic conflicts and the consequent administrative reform, which included the delineation of tribal boundaries. The treaty of 1948 allocated to each tribe in Borana province defined areas of grazing and water. Besides, the administration demarcated boundary lines, which separated each tribal area. The post 1941 Imperial administration effected administrative reforms. One of these reforms was the state sponsored meeting of 1948 held in Borana Negelle town. This meeting was held between a handful of government officials (administrative and police officials), and representative leaders of the pastoralist groups of Borana province. The participants of the 1948 meeting agreed on the peaceful settlement of the inter-tribal conflicts. One of the recommendations of this state sponsored meeting was to enforce peace through the creation of tribal reserves and the use of military force. Accordingly, in 1948, the administration allocated each ethnic group in Borana province with a defined tribal area (*ye-gossa-gitosh kilil*) with demarcated borders. Consequently, this administrative boundary separated Borana grazing areas from that of the Somali groups and other minority groups. Each ethnic group's territories or homelands consisted of dry- and wet-season grazing lands as well as watering points. Nevertheless, the demarcation of the boundary between Degodia, Marrehan and Borana "tribal areas" in Liban was not clear-cut as that of the Dirre region. It was demarcated arbitrarily without giving due consideration to the relations between the groups, mobility patterns, rights of use to the land and so on. In the latter case the tribal area of Borana and Garri pastoralists were separated by the main road that links Malka Gubba and Moyalle towns (the Negelle-Moyalle road).

Besides, the 1948 agreement states clearly the administrative measures and penalties to be implemented by the local Borana Province administration and police force in cases of any infringement or trespassing of the tribal land boundaries by any of the five major pastoralist groups. The sanctions to be taken by the local government officials and police units included confiscation of livestock held inside other group's tribal areas and payment of cash compensation (*afalama*). Moreover, the group leaders (*balabbat* or *teteris*) are obliged to capture and hand over the culprits to the police and the administration offices. To effect these the local government established several police posts along the tribal boundaries and in areas that separated the Borana from Somali clans and the Garri. The tribal boundaries were in the past prone to bloody inter-group boundary conflicts between these groups.

Accordingly, in circumstances of any inter-ethnic group territorial conflicts the administration staff, police, army and tribal leaders (*balabbats*) were given authority to settle the disputes and pass sanctions to punish the group found responsible. In addition, the 1948 peace agreement between the groups allowed inter-ethnic group conflicts to be handled using the traditional dispute-settlement procedures, customary laws, and other local conflict management practices. However, in extreme cases, the district administration took punitive military measures that involved raids on an entire group and confiscation of the livestock captured during such military raids. These administrative policies of the state were further maintained by Borana administration throughout the 1960s and until 1974.

The creation of tribal areas, and other supplementary administrative measures of the Imperial regime were crucial in hindering the expansion of the Somali clans into Borana, Gabbra, Garrimarro and Garri grazing areas and in lessening the frequency of the inter-tribal territorial or resource (land and water) related armed conflicts between the pastoralist ethnic groups of Borana administrative region. On the other hand, this treaty has led to the ultimate recognition and consolidation of the Degodia and Marrehan territorial rights over Borana lands in Liban District.

In spite of this strength, the official demarcation of tribal areas had also serious weaknesses. For instance, the demarcation line between Borana, Degodia and Marrehan in Liban has not been clear-cut. As a result, this and the need for mobility by all the above-mentioned pastoralists have

been a major hindrance to the preservations of the tribal boundaries. Thus, the effectiveness of the preservation of the tribal territories along their drawn boundaries depended largely on the strength of the Ethiopian state in controlling inter-ethnic group conflicts and the will of the traditional leadership of the Borana and their pastoralist neighbours. Whenever the local administration in the district became weaker, the peace settlement agreements signed by the pastoralist leaders and the administrative regulations that protected tribal land boundaries failed to function efficiently, inter-ethnic group resource conflicts flared and continued to occur repeatedly. In such circumstances, militarily stronger groups such as the Degodia and Marrehan Somalis expanded their grazing territories at the expense of weaker neighbours such as the Borana, Garri, Gabbra and Garrimarro.

Accordingly, in the 1950s, 1960s and 1970s, the local government in Borana land was not effective in hindering territorial conflicts between the Borana and their neighbours (the Garri, Degodia, Marrehan and Garrimarro) and among the four ethnic groups. The Degodia, Marrehan and Garri were able to gain extensive territories belonging to Borana pastoralists. In spite of the difficulties and several amendments, the tribal territory principle was strictly followed and maintained with the help of the military and police forces by the local and national government until 1974. However, the administration of tribal territory principle became impractical and it was abolished during the *Derg* rule (1974-1991), especially after the implementation of the 1975 Land Reform.

Since 1991 the Borana administration region was restructured and Borana region became Borana Zone in Oromia, with parts of its territorial base, Liban, and parts of Dirre being transferred to the Somali Region, and parts of Gujji Oromo and Arsi Oromo to the north and northeast of Borana being incorporated in the new administrative structure. The former Peasant Associations continued to function and became even bigger in size and the former districts became sub-districts. Under the *Derg* regime, the administrative staff were replaced by non-Borana - Oromo, Somali and others - who support the ruling government's ideology and policies. Today, only few Borana are actively involved in the administration of the Borana Zone. This absence of Borana participation in the administration has enabled the new non-Borana officials, especially from the Somali, Garri, Gujji, Konso and Burji, in the administration to take a range of

measures that benefited their respective ethnic group members; for example, employment and trading opportunities and access to land.

7. LAND TENURE REFORMS (1975-1973)

Besides the administrative measures discussed here, a range of other government measures have affected the Borana. One of these measures was the Land Reform of 1975 and 1993. The 1975 measures were primarily intended to replace the Imperial land tenure system by a socialist one. This law nationalized all rural lands and vested ownership rights in the state. In effect, this regulation replaced the office and the role of the local Borana leadership and their representatives by Pastoral Associations (*kebelle*) and the new PA leadership consisted of educated Borana. The duties of the new leadership were to administer the people and their resources such as land and water and to act as a bridge between government and the PA members. The PAs consisted of the people who reside within the territorial units created by the cadres. These territorial units consisted of land and permanent water wells. The new leadership attempted to replace the functions of traditional leaders related to the control and management of basic resources, such as water wells, dry-season grazing, and migration of households across the PA territorial boundaries. In general, the 1975 land reform contributed to the undermining of the customary pastoral land tenure and resource management. The establishment of the PAs among the Borana increased the interventions of the state in the internal affairs of the Borana and their resources. The government used PAs as channels for tax collection and for recruiting militia. Moreover, the PAs were considered by most of the Borana as oppressive and exploitative, for they recruited young herders to serve in the national army and gathered heavy cash and livestock contributions for the Ethio-Somali war and the civil war in northern Ethiopia (Eritrea and Tigray). They encouraged the settlement of the Borana. In general, the institution of the PA failed to promote sustainable development that benefited the pastoral Borana. However, one could not deny some advantages brought by the PA. The PA institution served Borana communities for bringing in food aid and for the distribution of relief food to PA members, especially during the famine years of 1975/76 and 1984/85. The PA shops served Borana families in accessing scarce consumer goods. Moreover, the PA security forces (the militia) assisted

Borana men in defending their communities and resources from competing neighbours.

In general, the Land Reform Proclamation of 1975, which abolished the principle of tribal area; the political instability and large scale displacement of pastoralists, from the war between Somalia and Ethiopia in 1977/1978; and the government's settlement policies of war/and famine displaced pastoralists and returnees from Somalia, outside their ethnic group territories, especially in the grazing lands of Borana, has affected Borana (Getachew 1996). Thus, the current problems of Borana can be largely attributed to the above stated factors.

8. CONCLUSION

In this paper, I attempted to show that the current problems of pastoral Borana and their neighbours were partly shaped by the various administrative and land related policies of the government, which started in the past. As the pastoral Borana territory shrunk over the decades, particularly due to the expansion of the Somali and other neighbours into their grazing areas and the imposition of the government's land reforms, their land and resource use patterns changed. Consequently, not only the traditional patterns of Borana pastoralists, but also their fundamental relationships to and their attitudes towards their neighbours and their collective resources have been altered. Their mobility pattern has declined and the pastoral Borana over the years have become permanent settlers who combine opportunistic agriculture with livestock management, trade and wage-labour. These pressures led to a new emphasis on their remaining reduced resources. The Borana stress territoriality and are increasingly dependent on the ownership of modern automatic weapons, and their young men to defend their remaining lands from further encroachment by their neighbours.

These changes in their adaptation patterns are reflections of the wider economic, social and political changes the Borana encountered over the decades. As part of the wider system (national and regional), Borana pastoralists have been affected by such changes. Still, they have successfully responded to these changes, by constantly adapting their economy and resource use to the challenges they have encountered. Accordingly, they have adopted new institutions, strategies and regulations to manage their reduced natural resources and livestock and

resource related conflicts within their community. The Borana are not as such a special case, there are a good number of pastoralists in the drylands of Ethiopia who demonstrated their ability to cope with scarcity and constraints by adopting innovative institutions to maintain themselves in their home areas in the drylands.

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SURVIVAL UNDER STRESS: THE RUFA'A AL-HOI OF THE SOUTHERN FUNJ IN THE SUDAN

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1. INTRODUCTION

Over the past few decades, there has been an increasing demand for food production, which has put the marginal lands of the countries of the Horn of Africa under severe strain. In certain circumstances the policies of trade, liberalization and outward orientation merely reinforce the centre-periphery inherited trade pattern and lead to further marginalisation. The short- to medium-term worsening standards of living and distribution of income consequent upon the adoption of Structural Adjustment Programmes (SAPs) makes the food security possibility more remote than at any time before.

Causes of the present crises in rural production systems in these countries cannot be attributed only to drought and desertification. Furthermore, they cannot be blamed on the lack of stability due to civil conflicts. These factors have definitely contributed to the crisis, but their impact has been further aggravated by the misguided agricultural policies adopted by most of these countries over the past three decades. Pricing policies as well as crops, encouraged at the expense of the land that used to be utilized by pastoralists, have led to more commercialisation of the rural production systems, which was traditionally directed towards subsistence. The integration of these systems into commodity-oriented market systems did not take into account the proper way to control the terms of trade and protect agro-pastoral production in rural areas (Ahmed 1992, 135-7).

Behind much of the policies followed and their justification are the widely perceived images of environmental change. These include overgrazing and the desertification of drylands together with the mining of natural resources, among other factors (Leach and Mearns 1996, 1). Within this

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context, it is almost forgotten that the pastoral production system used to be, and still remains, a major food producer in the countries of the Horn not only for local consumption but also for export. Land utilization by pastoralists cannot be held responsible for environmental degradation. Such an assertion does not take into consideration the fact that most traditional pastoral management can now be seen as environmentally benign, and indeed customary institutions for land management are potential models for the future. (Scoones 1995, 9).

However, attitudes towards pastoralists in the Sudan are generally confused. Their present marginalisation is resting on the classical assumptions made by policy makers and some development specialists who consider pastoralism as inefficient and destructive to the environment and pastoralists as not responding to the market mechanism and its price incentives. Cultural as well as economic reasons drive pastoralists to keep more animals. Since livestock is individually held and grazing is communally held, this leads to every individual attempting to maximize the use of a limited resource and hence the "tragedy of the commons" prevails.

The political marginalisation of the nomads within the state system has made it impossible for them to express their views in relation to planning land use in areas where they herd their animals. They are not in a position where they can explain to the planners and decision makers that their contribution to the national economy in a country like the Sudan is the highest within the agricultural sector. This is because in reality they respond to the market mechanism. However, they do that within the frame of their own production system, which is governed by both cultural and economic factors.

There are always surplus animals that go to the market and this is why livestock for local markets and export is rarely in short supply. These surplus animals are males as well as females whose reproductive span is over. They can be disposed of without affecting the reproductive capacity of the herd. Their entry in the market always takes into consideration the price factor. The rest of the herds are kept to maintain the productive process within the system and to provide the appreciated cultural image of the rich individual within the pastoral society.

Herd diversification is a common way of resource management among pastoralists. This has its impact on the environment as well as on the social organization of the human group itself. This is why among the pastoralists of the Southern Funj region of the Sudan the household may be divided specially during the dry season, since young men have to follow different types of animals during their grazing. It has to be noted that different animals have different niche specialization and different vulnerability to drought and disease.

Diversification helps to reduce overall vulnerability to drought and disease and to ensure the continuity of the household within the pastoral production system. The pastoralists acknowledge that herd reconstitution after droughts and epidemics is a long and slow process because many female reproductive stock will have died off - a situation that no household would like to be in (Hogg 1997, 11).

For a long time the attitude of the Sudanese Government has been that of total neglect of pastoralists in its development plans (Ahmed 1987). The high potential area of Southern Funj has been subjected to expansion of rain fed agricultural schemes, mainly uncoordinated projects where animals are not integrated in the production system. This led to the continuing marginalisation of the Rufa'a al-Hoi and other pastoralists in the region. Such marginalisation is further increased because the Rufa'a al-Hoi leadership lost its power of influencing the regional politics, after the native administration was abolished in the early 1970s. The large-scale expansion of schemes has led to the loss of gum gardens, which were a major source of additional cash income for some of the Rufa'a al-Hoi pastoralists. It has also led to the loss of some of the areas where they used to cultivate some small plots of land with sorghum, for subsistence when combined with animal products.

Due to the drought of the early 1980s and the recent extension of the civil war zone to the Southern Funj, many Rufa'a al-Hoi households had to settle down and drop totally or partially from the pastoral system. This process of becoming sedentary has its own problems that the Rufa'a al-Hoi had to face. The various sections below shall address the impact of the expansion of the schemes, the drought and the civil war on the Rufa'a al-Hoi pastoralists and shall also look into the problems facing their forced settlement.

2. BACKGROUND

Pastoral production systems in the area between the Blue Nile and the White Nile in the Sudan, referred to as the Southern Funj region, are undergoing rapid processes of change in a context of steadily deteriorating environmental conditions. The competition for grazing resources by different pastoral groups is intensifying due to the shrinking area available for such an activity. The semi-mechanized schemes, the drought, and the civil war in the southern part of the region have negatively affected the pastoral production systems and the national economy at large.

The Rufa'a al-Hoi is the major pastoral group utilizing the pasture resources in the Southern Funj region (Ahmed 1974). They compete for these pasture resources with three other ethnic groups, namely, the AmBarraro, the Ingeessana and to a lesser degree, the Kinana who meet with the Rufa'a al-Hoi northern *Badya* pastoralists on crossing to the eastern banks of the Blue Nile during the dry season. With the start of the semi-mechanized agricultural schemes in the late 1950s, the land available to the pastoralists began to decrease rapidly. Other resources that the Rufa'a al-Hoi used to utilize were gradually disappearing. Major among these are the gum gardens where the trees are cut down to make room for the agricultural schemes. They also lost access to the artificial water bonds (*hafirs*), which they and their animals depend on during their annual movement from the wet season grazing areas to the dry season ones.

Many changes have taken place since Rufa'a al-Hoi was first studied more than three decades ago (Ahmed 1974). However, the most recent change in the area is the extension of the civil war zone to cover part of the area used by pastoralists in the southern Funj. These changes have forced the Rufa'a al-Hoi to readjust their system of livelihood to the new realities or totally abandon the pastoral system and settle down. The result has been the fast sedentarisation process witnessed recently. With this sedentarisation process the issue of land ownership, and disputes over land resources, became a daily concern for the settled villagers and pastoralists alike.

The expansion of war to the area forced the pastoralists to establish their own defensive mechanisms. They started to train in using sophisticated arms and to develop a military organization of their own. The issue of stability and complementary relation between the various ethnic groups in

the region can no longer be taken for granted as it used to be. This paper briefly addresses some of the major changes that took place over the last two decades or more.

3. THE HOUSEHOLD ECONOMY

The major resources utilized by the Rufa'a al-Hoi households up to the early 1970s were livestock herds, abundant grazing lands, possible areas for cultivation of small plots during stock movement with part of the household members returning to harvest, gum gardens distributed by the tribal leaders and the possibility of sharing gum gardens or agricultural lands with settled villagers on a rent basis.

To utilize such a resource base, the household labour was divided based on sex and age. Herding, cultivation and gum tapping are mainly undertaken by young and middle-aged men. Women do the domestic work and, together with the children, look after the small herd of goats and/or sheep kept round the tent cluster for the purpose of providing the household with its daily needs of milk. Elderly males mostly sit in the men's tent or under a shade of a big tree, a short distance from the tent clusters, where they entertain guests and occupy their time by undertaking some handicraft work such as rope making. Different types of herds, kept by both the northern and the southern *Badyas* of the Rufa'a al-Hoi, have different grazing habits and hence require special arrangements in herding.

The income gained from gum tapping, in addition to that from the sale of a small number of animals every year, allows the household to buy the necessary items from the village markets. The items needed are mostly consumer goods such as sugar, tea, sorghum and clothes. In certain circumstances, the households may sell milk to the villagers in places where they spend the rainy season.

At present changes have taken place in the household's daily activities. The plots of land for cultivation have disappeared since all of the high potential land has been taken over by the semi-mechanized schemes and settled villagers. Even if such is found, it is no longer possible for the household members to cultivate a plot and come back after sometime to harvest it as in the past. Such an unguarded plot will be taken by others or damaged by animals.

The gum gardens have been cleared to give place to the agricultural schemes. This has led to the loss of an important cash source for a significant number of households. To compensate for this loss of income, to buy sorghum that they could have produced from the plots of land, and to buy necessary consumer goods, more animals have to be sold. In this case, they have to go beyond the surplus animals and even sell some of the productive herd. Such an act leads to the depletion of herds, poverty and hence forced sedentarisation.

4. RECENT TRENDS IN THE SEDENTARISATION

For the Rufa'a al-Hoi, whose history of utilization of the resources in their homeland (Dar) had been characterized by continuous movement according to availability of water and grazing areas, settlement in large numbers has only recently been observed. Although since the late 1960s and early 1970s some of the Rufa'a al-Hoi pastoralists started to settle due to the gradual loss of herds, the conspicuous process of sedentarisation witnessed today is a new phenomenon. Many reasons have enhanced such a process. Major among these are the expansion of the rain-fed semi-mechanized agricultural schemes that took over most of their traditionally utilized *Dar*; the impact of the drought of the mid 1980s which left many members of the group without any significant herd to facilitate a migratory life, and recently the extension of the civil war into their areas. This is of course in addition to the competition they were facing all the time from other pastoralists who have been using the same area since the 1950s, namely, the Fellata Am-Barraro and the Ingessena.

The destinations of the newly sedentarised are the small towns of Abu Hugar, Wad al-Nayal, Dar Agil and Signa, which are mainly market and administrative centres in the Rufa'a al-Hoi *Nazirate* area. The number has been very large and whole neighbourhoods have appeared in such towns populated by the Rufa'a al-Hoi settled pastoralists. For instance, neighbourhoods of over five to six hundred members have appeared in these towns. Three of such neighbourhoods, for example, have appeared in Abu Hugar town while two similar ones appeared in Wad al Nayal. The settlers are mostly from the northern *Badya*, where the process started earlier than the southern *Badya* and which was greatly accelerated by the drought and the expansion of the semi-mechanized rain-fed agricultural schemes.

Apart from the settlements in urban centres of the area, there are also scattered settlers' villages. Some of these are near these urban centres. However, it is important to note that the pastoralists' settlement in urban areas or in villages is not without its problems. An example of what usually takes place can be seen from the case of the village of Wad Karar, near Dar Agil. The number of the households settled in this village is 200. The settlement of the pastoralists in this village was preceded by a long dispute between the old and the new settlers over land ownership. In the old days, the concept of *Dar* was consistently applied and the whole area was considered as Dar Rufa'a al-Hoi or Dar Abu Ruf. The Rufa'a al-Hoi pastoralists can put their camp anywhere in that *Dar* or they can settle if need be. The non-Rufa'a El Hoi settled population had to seek the permission of the *Nazir* (the leader of the tribe) to establish or expand the boundaries of their settlement.

The situation that the Rufa'a El Hoi pastoralists started to face since the abolition of the Native Administration in the early 1970s, and even after its reinstatement in the late 1980s, is that the non-Rufa'a al-Hoi settlers refused to recognize the Rufa'a al-Hoi claims to their *Dar*. With this understanding, the non-Rufa'a al-Hoi settlers of Wad Karar village refused to allow the Rufa'a al-Hoi pastoralists to settle down with them, claiming that the land belongs to those who are already settled on it. The settlers' argument is based on the assumption that the concept of *Dar* no longer holds, especially when there is an already established village.

This dispute between the newly sedentarised Rufa'a al-Hoi and the very much earlier non-Rufa'a al-Hoi settlers had to be taken to courts. It took a long time to settle this dispute and in the end, the rights of Rufa'a al-Hoi were recognized. Many other similar conflicts instigated by the need of the Rufa'a El Hoi members to settle down were solved in the same manner. The increasing need of the Rufa'a al-Hoi to settle is best represented by the fact that 70-80 percent of the members of the northern *Badya* have settled down.

The sedentarised pastoralists are engaged in both herding and farming activities. Some of those who settle in urban centres are involved in livestock marketing acting as mediators and grantors, an activity in the past mainly undertaken by the Rufa'a al-Hoi's sedentary elite. While most household members settle permanently in villages, young men travel long distances with whatever herds are left to these newly sedentarised

households. Sometimes they can be away from the village for over two months. Yet it has to be emphasized that this type of movement differs from the previous one (before the settlement) in two respects: first, the size of the herd in this case is small; and second, the distance covered is short and the direction can differ from time to time and they do not follow the same route every time.

As stated earlier, the Rufa'a al-Hoi view all the area of the southern Funj (except for the banks of the Blue Nile) as their homeland on which they have the right to settle and practice any activity they see fit. According to customary land regulations, anyone who abandons his plot of land for three successive years automatically loses the right to any claim over the plot. Equally, the person who occupies a plot (i.e., through cultivation) for three successive years can claim its ownership. In the process, conflicts over land ensue. The Rufa'a al-Hoi do not wait to be given the consent of the non-Rufa'a al-Hoi earlier settlers to occupy the land. They simply erect their huts, either near established villages or in any unoccupied space. In fact, the Rufa'a al-Hoi leaders encourage their followers to first settle down and then settle any disputes that may arise in court. However, attempts are always made by the Rufa'a al-Hoi leaders and the village *Shaykhs* (village leaders) to settle these disputes out of court. So far, no specific arrangements have been reached between the Rufa'a al-Hoi and the non-Rufa'a al-Hoi settlers regarding the land claim and each case is considered on its own merits.

The Rufa'a al-Hoi *Nazir* and his supporting administrative staff (i.e., *Wakeels*, *Omdas* and *Shaykhs*, which means Nazir's deputy, head of section, and head of camp or village leader, respectively) are administratively in charge of the settled Rufa'a al-Hoi members. These days, in fact it happens that a particular *Shaykh* and his followers may settle in the same place. The newcomers to the villages attempt to reside where the previous members of their camp have settled and hence they come to be under the administration of their same *Shaykh*. The case of Wad Karar village mentioned above is a case in point.

While the major parts of the northern *Badya* have settled around small urban centres or already established villages, the southern *Badya* settlers have established their own new villages further south around places such as Boot, Mazmum, Guli and Wad Abok. Few of the southern *Badya*

members who lost their animals in the early days of the drought and the expansion of the agricultural schemes have settled near Wad al-Nayal.

Since the competition for land has intensified over the past 20 years, the role of the elderly Rufa'a al-Hoi members has been boosted tremendously. They are now constantly needed to provide advice and guidance and to help in solving disputes over land. They play the very important role of consultants for *Shaykhs*, *Omads* and *Nazir* since many of these are young and not very familiar with the tradition of land ownership and the relation with the non-Rufa'a al-Hoi sedentary groups. This is, of course, in addition to their role in the settlement of internal disputes, whether in the pastoralists camps or among those who settled down.

It should be mentioned that the policy of Rufa'a al-Hoi leaders is to encourage their followers to settle down. These leaders have realized that by settling down the pastoralists will enjoy some of the services that the villagers are receiving from the government. In handling the land ownership problem, the leaders ask their followers to construct their huts anywhere and then deal with any forthcoming disputes later. Some of the leaders argue that settlement should not be an issue to be disputed over. Rather, it depends on the situation in the area and the desire of the pastoralists themselves. A pastoralist might settle down and after a while move again. However, to do so one has to have enough animals to be back in the system. Some succeed in doing this because originally when they settled they left some of their animals with relatives and friends and hence they did not have to build a new herd starting from scratch.

5. MECHANIZED FARMING AND PASTORAL MOBILITY

The major pastoral groups utilizing the area remained the same over the past three decades. However, due to the development of the rain-fed semi-mechanized schemes and the appropriation of the high potential areas by the scheme owners, the pastoralists started to lose most of their best grazing land. The schemes' expansion led to the shrinking of the space that used to be grazed during the two-way movement from the northern rainy season areas to the southern dry season grazing areas. To cope with this situation, the pastoralists had to concentrate their herds on the dry season and the rainy season grazing ground while they are forced to move quickly through the schemes' areas - which are taking the major part of the landscape between the two polar points mentioned above.

Due to the increasing conflict between the pastoralists and the scheme owners, the state administration in the region had to intervene a number of times to handle the frictions between the two parties. When the schemes were originally planned in the late 1950s and early 1960s, it was made clear to the scheme owners to allow passage for the pastoralists in their annual migration. The routes for the pastoralists were identified and no scheme was licensed in the recognized areas. However, soon unauthorized schemes started to appear taking most of these passages. This led to conflicts, which made it necessary (in 1970) for the administration of the region to draw some regulation for organizing pastoral movements and allowing for the expansion of the mechanised schemes.

The problem became more critical by the late 1980s when the government appropriated most of the land in the region and leased it to companies and private investors to increase agricultural production. This was done in total negligence of the contribution of the livestock sector to the national economy. As an example, the contribution of the livestock sector to the national economy in 1990/91 was 11.9% while the large-scale rain-fed mechanized schemes contributed 1.5% (see table 1).

Combined with the civil strife in the southern most limit of the Funj area, the appropriation of the land has led the Rufa'a al-Hoi southern *Badya*, who continued to move with their animals, to make major adjustment to their annual movement. They had to stay for longer periods in the rainy season grazing areas, a practice that lead to exhaustion of the natural resources and hence degradation of the land. When moving to their dry season grazing areas they had to cover the distance taken by the expanding schemes in a very short time which has negative effects on both human and animal populations. In addition, it became a fact of life to enter into conflict with the scheme owners since the animals always have to graze, during their long movement of three to five days, on some land of these schemes and be watered from the *hafirs*, which are now in the vicinity of the schemes. They had also to stay longer in the dry season grazing areas until the heavy rains start. This makes the movement of animals northward very difficult in addition to the attacks by insects that appear with the rains.

Table 1. *The contribution of the agricultural sector to the GDP (in million Pounds)*

Type of activity	Year									
	1986/87		1987/88		1988/89		1989/90		1990/91	
	Contribution	%	Contribution	%	Contribution	%	Contribution	%	Contribution	%
<i>Agriculture</i>	2196.3	34.5	1926.5	30.7	2076.5	31.3	2002.9	30.1	1913	28.6
<i>Irrigated crops</i>	713	11.2	677	10.8	673	10.2	677	10.1	686	10.3
Large-scale rain-fed mechanized schemes	317	5	132	2.1	344	3.4	149	2.2	97	1.5
Rain-fed cultivation	265	4.2	206	3.3	235	3.5	204	3.1	123	1.8
Livestock	712	11.2	723	11.5	746	11.3	771	11.6	799	11.9
Forestry, fisheries and agricultural services	189	3	189	3	198	3	201	3.1	208	3.1

SOURCE: The Economic Survey 1990-1991, Ministry of Finance and Economic Planning, Khartoum, 1992.

The movement south can no longer extend to the areas it used to cover a decade ago. This is mainly due to the activities of the fighting groups. This situation made the Rufa'a al-Hoi and their other competitors on the grazing areas come close to each other and compete for the increasingly limited space. As indicated earlier, this was one of the major reasons for the settlement of 10-15% of the Rufa'a al-Hoi southern *Badya*.

As for the other pastoralists using the same area as the Rufa'a al-Hoi, namely, the Fellata AmBarraro and the Ingessena, they have also been greatly affected. The expansion of the schemes south of the Ingessena Hills has had its negative impact on both groups since it has taken most of the grazing areas they used to utilize during the early periods of the rainy season and the late days of the dry season. The civil strife has restricted their movement south the same way it did the Rufa'a al-Hoi's.

It is to be noted that the AmBarraro have already changed the direction of their movement, whereby they started to spend the rainy season on the western part of the Ingessena Hills while they moved westwards toward the White Nile during the dry season. This of course gets them into conflict with the scheme owners on the eastern banks of the White Nile as well as competing for grazing lands with the White Nile Baggara (cattle pastoralists).

The movement of the Ingessena youth with their herds south of the Hills to the Khor Yabous area and then the western banks of the Blue Nile near the Ethiopian borders continued until the late 1980s. However, with the escalation of the fighting in the Yabous area, the tendency now is only to move toward the Blue Nile banks.

The Northern *Badya* of the Rufa'a al-Hoi also had some limitation on its movement due to the expansion of the schemes and the establishment of irrigated agricultural schemes such as the Kinana and the Rahad. The drought of the early 1980s had led to the settlement of 70-80 percent of this *Badya* in the villages already noted above. Those who continued to move, especially with their camels, had to extend their dry season movement to eastern Sudan (i.e., Gedaref, Kassala and the Ethiopian borders).

After the abolition of the Native Administration at the beginning of the 1970s, what was left of the high potential lands in the areas was

earmarked for rain-fed cultivation and was distributed to settled villagers as well as private non-resident investors without consultation with pastoralists or their leaders. In the process of preparing the land for cultivation, trees were cut down, including *hashab* gum trees (*Acacia senegal*). Gum Arabic production in this area was mainly a domain controlled by the Rufa'a al-Hoi leaders, who have the responsibility of distributing the gum gardens to their followers who in turn arrange for tapping them through sharecropping arrangements with migrant labour from Kordofan. After the abolition of the Native Administration, the few residual gardens were given to non-Rufa'a al-Hoi villagers. The authority of the Rufa'a al-Hoi leadership on the gum gardens was totally lost to the extent that even the present *Nazir*, coming to office after the reinstating of the Native Administration, claims to have no access to what is left of the gum gardens. When the Rufa'a pastoralists started to settle down, they claimed their rights over gum gardens, a situation that led to some conflicts with the villagers who are holding such gardens. The leadership is making all efforts to regain such gardens for their followers with little success so far.

Another problem arising because the Rufa'a al-Hoi had to stay in the rainy season areas for a longer period is that they get into serious competition with the neighbouring Kinana who use the same area at the same time. There is obviously here a latent problem of land dispute instigated by the expansion of mechanized farming and other factors. This conflict is still dormant but, as the leadership of both groups view the development in the area, it might soon become an open one.

6. REINSTATEMENT OF NATIVE ADMINISTRATION

Abolished in the early 1970s, the Native Administration system is back in place since the late 1980s. The leadership structure of the Rufa'a al-Hoi remained the same as it was before the abolition. It consists of the *Nazir*, at the top of the hierarchy, followed by his two *Wakeels* (deputies); one for the northern *Badya* and one for the Southern *Badya*. The present *Wakeels* are brothers of the *Nazir*. The three being the sons of *Nazir* Ahmed Yusuf Abu Ruf, who was the *Nazir* before the Abolition of the Native Administration in the early 1970s. The one change at this level of leadership is that of the *Wakeel* post of the southern *Badya*, which was

under the authority of the Beni Hussein family, the rivals of Abu Ruf family, and is now in the hands of Abu Ruf.

There are nine *Omodias* under the authority of the *Nazir*; including Abu Hugar, Wad el-Nayal (where the present *Nazir* lives; the previous *Nazir* lived in Abu Hagar), Dar Agil, Mazmum, Galghani, Wad Awieda, Wad Balula, Beni Hussein and Osman Rahama. However, the major *Omodias* are the four, which are among the pastoralists: two in each *Badya*. The rest are for the settled population, and among these one is a non-Rufa'a al-Hoi *Omodia*, namely, in Gelghani where the main group are Fellata under the Rufa'a al-Hoi administration.

Under the above *Omdias*, there are 80 *Shaykhs*, including the northern and southern *Badyas*. The number of *Shaykhs* attached to Abu Hugar Council is 19, while the number of those attached to Wad el Nayal is 27 and the rest are in the two *Badyas*. The average number of *Shaykhs* in each *Omdia* is eight, and the size of the Rufa'a al-Hoi population is estimated as 300,000. Among the pastoralists, the average size of the camp is 100 households.

At the time when the Native Administration was abolished the settled villagers established their own village councils. A new leadership has emerged from among them and has developed its own interests in the area, especially with reference to the landownership issue. It started to argue that lands around the villages are village property without consideration of the issue of Rufa'a al-Hoi *Dar*. Their influence in running the Rural Council affairs has increased while that of the Rufa'a al-Hoi leaders has declined.

The role of mediation between the settled people and the pastoralists, which was played by the Rufa'a al-Hoi leadership, is no longer in place. This is mainly due to a number of reasons. The major ones are that the new Rufa'a al-Hoi leadership is not familiar with the traditional relation between these two communities (i.e., settled and pastoralist) and the history of the different settlements. The mediation role of this leadership has been weakened because many people have settled over the years and started to manage information. The pastoralists now seek their sedentary relative to obtain any information needed rather than approaching their leadership. The ethnic issue between the village leadership and Rufa'a al-

Hoi leaders, being fuelled by national politics, has started to come to the fore.

The federal system promulgated recently in the country with the intention of bringing the government, both “functionally and physically”, closer to the people has exerted negative effects on the Rufa’a al-Hoi. While previously they were attached to one or two provinces, currently they are scattered in four states. These are: Sennar, Blue Nile, White Nile, and Gezira. This complicated the administration of pastoral groups and inflicted financial losses on pastoralists. This is because the pastoralists are in many cases taxed more than once. This also applies in the case of *Zakat* and many other ad hoc dues.

Among the leadership of the Rufa’a al-Hoi, some *Shaykhs* are critical of their current *Nazir*. It is argued that he has no comprehensive knowledge of the area and the complexities of the present situation because he was absent during the previous years (studying and becoming a migrant employee in the Gulf States). Even when he succeeded his father as a *Nazir*, he used to travel a lot to the Gulf States, where his wife and children resided.

7. THE CIVIL WAR

Since the mid 1980s, the Rufa’a al-Hoi have been drastically affected by the civil war. However, the recent military operations in the Blue Nile area have made it impossible for the Rufa’a al-Hoi to utilize their southern grazing grounds. According to information provided by the *Wakeel* of the *Nazir* for the southern *Badya*, 23 herds (*murahs*) of cattle and sheep were robbed by the rebels between January and May 1998. Each such herd consisted of 400-600 heads of animals. Moreover, 17 Rufa’a al-Hoi herders were killed.

It is important to note that some of the ethnic groups of the area, namely, Jum Jum, Gumuz and Burun, who have been in peaceful relations with the Rufa’a al-Hoi for a long time, some of whom even used to work as herders for the Rufa’a al-Hoi, have now taken arms. Many of them, however, did not join the rebel movement or the military units of the Northern Sudanese opposition. Their activities were directed towards robbing the herds of the pastoralists moving in the area, including the

Rufa'a al-Hoi. Ironically, these groups have been trained and armed by the government to act as a buffer zone against the rebels.

Because of the devastation of the southern *Badya*, pastoralists can no longer go beyond Jebel al Tin, which meant being denied the use of the best dry season pasture. Camp clusters consisting of extended families became very cautious and specific in their movement. While previously two to three herders (mainly owners) would look after the herd, now, after recurrent robbery incidents, the number of those who follow the herd ranges from 30 to 40.

To combat these problems, the Rufa'a al-Hoi started to train themselves in the use of sophisticated firearms and proper war tactics. Some of the trained follow the herds while others stay at nearby camps to be ready for any emergency. Two of these emergency camps are found in Wad Abok and Malkan. This is an essentially defensive device to confront threats caused by shifting the war to the areas that formerly used to be the main domain of grazing for the Rufa'a al-Hoi. Such action could obviously become a nucleus for an armed militia of the Rufa'a al-Hoi similar to those found in Southern Kordofan and Darfur.

With this defensive strategy used, the southern *Badya* pastoralists insist on going as far south as they can despite the danger they are destined to face. This is because those southern parts are rich in pasture and water. By experience, the Rufa'a al-Hoi found out that when they graze their animals in this area the sheep give birth twice a year. They argue that "let the rebels take one of the new-born and leave the other."

The dynamics of local-level politics are behind the reluctance of the government of the Blue Nile State to train and arm the Rufa'a al-Hoi pastoralists in the Southern *Badya*. The Rufa'a al-Hoi argued that this is the case because the government of the State is mainly dominated by non-Rufa'a al-Hoi elements. As such, they are not ready to empower the Rufa'a al-Hoi pastoral groups who may one day in the future turn against them.

The AmBarraro have been even more devastated by the civil war compared to the Rufa'a al-Hoi. This is because they used to move deeper south than the southern *Badya*. They also used to stay late in the south and not to go north, beyond the agricultural schemes of Mazmum, during the rain. Presently, they had to change the direction of their north-south

movement in the southern Funj to east-west movement between the Ingessena Hills to the White Nile and back.

One interesting aspect of the war situation is that it made the relation between the AmBarraro and the Rufa'a al-Hoi as one of mutual support. In the past, this relation was competitive and hostile. This is not to say that there are no conflicts of interest between the Rufa'a al-Hoi and the AmBarraro but such conflicts, if they exist, proved minor compared to the challenges of war facing both of them.

Another impact is that the war affected not only the Rufa'a al-Hoi and other pastoralists in the area but also their animals. Due to attacks and robbery, some of the cattle herds started to wander around the area without herders attending to them and gradually turning wild. The experience of domestic animals turning wild if left without human attendance is quite common and hence what is happening to the cattle in the southern Funj is not a peculiar incident.

8. CONCLUDING REMARKS

The recent trends in sedentarisation of the Rufa'a al-Hoi have been instigated by three major factors. These are: (a) the appropriation of their traditional grazing areas to allow for the expansion of the rain-fed semi-mechanized schemes that commercialised agricultural production in the area; (b) the drought of the early 1980s that led to a significant loss of animals especially among the northern *Badya*; and (c) the civil war activities in the southern Funj area which curtailed pastoral movement.

One thing that seems to go unnoticed by planners and decision-makers in the region is that by appropriating land from the pastoral group and putting it under rain-fed or irrigated agriculture, they are doing a disservice to the national economy. Over the years, the contribution of the livestock sector had always exceeded that of the agricultural one. Yet, no supporting facilities of similar nature to those given to the agricultural sector are directed towards the livestock one.

The concentration of the pastoralists in limited areas is gradually leading to land degradation. This, together with the cutting of trees to allow for the expansion of the rain-fed agricultural schemes and the drought of the 1980s, has had a negative impact on the pastoralists and led to sedentarisation. The cutting of trees led to the loss of a major income to

the settled and pastoral groups, which they used to get from the gum garden. It was a loss to the national economy as well.

Sedentarisation brought to life the conflict over land especially between the non-Rufa'a al-Hoi villagers in the *Dar Rufa'a al-Hoi* and the recently sedentrised pastoralists who have traditional claims to the land. The reinstated Native Administration system did not help very much in solving the problem. On the contrary, it might have enhanced the conflict process. The Rufa'a al-Hoi leaders are encouraging their members who want to settle down to construct their huts first and then contest their claims, with whoever opposes them, in the courts. It is being even more complicated due to the feeling of the pastoralists and their leaders that they are living in a regional state whose leadership is mainly non-Rufa'a al-Hoi.

The civil war has promoted the emergence of a military trend among the Rufa'a al-Hoi. They had to change their system of grazing, to be cautious in their movement, and to resort to armed tactics to defend themselves and their herds. The emergence of a militia similar to those in Kordofan and Darfur is very possible. Other pastoralists in the area are suffering equally from the civil war. Some, such as the AmBarraro, had to change the direction of their movement in response to the expansion of war in the area.

Overall, the situation in the area is deteriorating rapidly. Under the pressures outlined, what is left of the pastoral system may not survive. Unless a new state leadership with a vision of integrating the agricultural schemes with the livestock sector (as represented by the pastoralists), little hope exists for developing the area and improving the quality of life of its people.

The civil war is no longer in Southern Sudan and the looming reality of two Sudans will have a disastrous impact on the frontier people such as the pastoralists of the Southern Funj. This will of course lead to a negative impact on the performance of the economy and the social life of the different groups in the whole region.

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TRADITIONAL PASTORALISM ALONG THE NILE BELT IN NORTHERN SUDAN AND PROSPECTS FOR THE FUTURE

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1. INTRODUCTION

A defining feature of our contemporary time is that traditional pastoralism is declining throughout the world. The future of the sector has become the subject of considerable scientific and developmental debate. Sudan is the home to one of the largest remaining concentration of traditional pastoralism in the world (around 2 million in 1993). However, and in spite of the apparent decline of the sector, knowledge about the various pastoral groups and their real situation is still limited and incomplete.

The general objective of the paper is to contribute to the ongoing debate on the future of traditional pastoralism. The specific objective is to draw attention to the major problems facing traditional pastoralists along the Nile belt (Western Butana) in Northern Sudan and to present empirical material that helps to speculate on their future. The major argument advanced here is that adverse environmental conditions under a situation of expanding market economy and modernization and the possibility of herd de-capitalisation are major incentives for herders to leave the pastoral sector.

2. THE GEOGRAPHICAL AND CULTURAL CONTEXT

The study area occupies the western part of the Butana plain (10-15 km east of the Nile) between latitudes 15° 52' and 16° 56' and longitudes 33° 40' and 34° 15'E, covering an area of approximately 7500 sq. km. Administratively, it is part of Kaboushiya Local Council, Shendi Province, Nile River State.

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The area has a long cultural history. This history is necessarily linked with the emergence of the Sudanese Kingdom of Meroe (750 BC – AD 350) with its focal point near Kaboushiya. During that period, the major agricultural revolution in the Sudan took place along the banks of the Nile and Western Butana where the fertile *wadi* systems offered the opportunities for the expansion of cultivation and the diversification of crops. On the clay plains of Butana *dura* (sorghum) was grown, for the first time, and cotton was introduced (about 400 BC) in huge plantations around Meroe sustaining a flourishing textile industry, (Trilisbach 1991). Water storage pools, which were effectively the origins of the *hafirs*, were constructed and nomadic routes were established. The cultural heritage of that period is still surviving, in the form of pyramids, temples and the monuments of lions in *hafir Um Osoda* (*hafirs* of lions) in the Butana, 70 km east of the Nile.

Historical evidence (Shinnie 1967) suggests that climatic conditions in the past were much wetter than today where the semi-arid qualities of climate prevail. The amount of rainfall is very small (102 mm per year) and varies considerably over space and time. The bulk of rainfall (over 80%) is confined to the months of August and September.

The area falls entirely within the *Acacia-tortillis- Mearua Grassifolia* Desert Scrub vegetation zone of Harrison and Jackson (1958). Vegetation is generally sparse and vast areas are completely devoid of plant cover, especially during the hot dry summer. The seasonal watercourses (mainly Wadi El Hawad) have a denser plant cover. Here the most frequent species are *Acacia tortillis*, *Acacia nubica*, and *Balanites aegyptiaca*. *Leptadenia pyrotechnica* and the useful grass *Panicum turgidum* are common on sandy soils. During years of good rain, a dense grass cover is observed.

Plurality of tribal composition is a feature of the area. These include Fadnia, Kawahla, Gaa'lien, Manaseer, Ablbda and Hassaniya. The total population in 1998 was estimated at 12145 persons; the male/female ratio was 105% and the average household size was 6-5 persons (Table 1). Settlements are small and widespread and the average population density is 1.6 persons/km². The typical residential pattern takes the form of either a small village with houses of mud or a small nomadic camp consisting of 10-15 nomadic tents.

Table 1. Population and H/H size by major settlement clusters, 1998

Settlement	No. of H/Hs	Total population	Average H/H size	Tribe
Un Shadieda W.	116	754	6.5	Gaalien Kawahla
Timaid Hag El Tahir	258	1625	6.3	Fadnia
El Geheid	235	1669	7.1	Fadnia
Umm Hatab	105	620	5.9	Fadnia
El Benber	176	1250	7.1	Fadnia
El Ahamda	202	1293	6.4	Ahamda. Ababda
Wadi El Dan	75	435	5.8	Fadnia, Gaalien
Shireisha	97	669	6.9	Gaalien
Beer Wad Gadeen	100	660	6.6	Ababda
Beer Tazied	55	462	8.4	Gaalien
Wadi El Trabeel	210	1419	7.1	Aabada
Umm Ishaira	210	1419	7.1	Ababda
Koa El Siraih	125	550	4.4	Manaseer Hassaniya
Total	1880	12145	6.5	

SOURCE: Area Development Scheme Lower Atbara (ADSLA) 1997.

3. THE PASTORAL ECONOMY

The pastoral economy in the area is based on a combination of animal herding, crop cultivation and wage labour migration. Animal herding has been traditionally recognized and still is the major land use system. Sheep, goats, cattle and camels are herded.

Movement with animals over both space and time is the main adaptive mechanism to the spatial and temporal variations in grazing resources. The pastoral economy of the area divides the year into two grazing periods:

- i) The period from July to early March. This period includes both the *kharif* (July-October) and winter (November-March). During this period, animals are grazed in the wadis of the interior and the pastures of the Butana as far as Shukriya territory. This is the period of the highest animal density in the area. Table (2) gives a reflection on this.

Table 2. Animal population grazing in the area during kharif

Animal type	Number
Cattle	3,000
Camels	2,000
Sheep	3,000
Goats	2,000
Donkeys	1,5000

SOURCE: Fieldwork.

The existing water yards in the area (Table 3) constitute the main source of water supply for animals during this period. This has created local deserts completely devoid of plant cover around these water yards.

Table 3. Sources of water supply in the area

Place name	Water yards	Hand dug well
Timiad Hag el		
Tahir	1	--
El Geheid	1	1
Shireish	1	--
Umm Hatab	1	2
Umm Isheira	1	1
Koa El Siraih	1	--
Wad El Hamdh		

SOURCE: Fieldwork.

- ii) The period from March to early July. During this time, pastures are very thin and the crops along the Nile are harvested. Accordingly, animals are moved to the river to graze on the crops remains.

Generally, two herding systems are recognized: contract herding and village herding. Contract herding is the dominant form. Approximately 80% or more of the livestock in the area (see Table 2), particularly sheep, goats and all cattle, are herded on that basis. Animals are principally owned by the people in the villages located along the Nile. The herders are usually former pastoralists from the inland areas (mostly Manaseer, Fadnia and Hassaniya). The herder is usually paid per head of livestock per month (see Table 4).

Table 4. The herding cost per month per animal, 1998 (LS)

Animal	Cost (LS)
Camel	5,000
Cow	3,000
Sheep	0,750
Goat	0,500

SOURCE: Fieldwork, 1998.

The herder usually attends one to two herds of the small animals (the herd is approximately 100 sheep and/or goats). The herd composition of such animals consists of: 60-70% mature females, 10-15% immature females, and 20±% young males (3-6 month of age). The system is highly market oriented and animal take-off is usually a response to market incentives.

Village herding is common among settlers where small animals are dominant. Average animal size is usually small (10-15 head). Grazing is usually around the village whereby animals sometimes are attended by women and children. The stock-friends system is also practised and animals are made to graze at longer distances from the village (5-10 km).

Given the marginal nature of the physical environment, crop cultivation takes place under conditions of high risks and uncertainties. The practice is site specific with the major *khors* (Hawad) and depression being the

main cultivable areas. The total area suitable for cultivation is estimated at 75,000 *feddan*. The area under cultivation fluctuates considerably, from less than 5,000 *feddans* to about 30,000 *feddans*, depending on the amount rainfall.

Regarding ownership, the land is unregistered and is officially owned by the state. However, the Gaalien tribes along the Nile have inherited the rights of use. All other tribes are considered landless tribes as they lack such rights. Accordingly, land renting is a common practice in the area. The rent is usually paid in kind and is known locally as “*Salif*”, “*Taddan*”, “*Rasan*”, “*Shuraia*” or “*Oshur*” which is equivalent to 1/10 of the yield. Each household rents on average 5 *feddans* to grow *dura*, the staple grain. Crop yield varies from 10 sacks (970 kg) to 2 sacks (180 kg) during years of good and bad rains, respectively.

Seasonal migration for wage labour constitutes an integral part of the pastoral economy of the area. Pump irrigated agriculture along the Nile is the major attraction for migrants where they work as agricultural labourers. Most of this migration takes place during winter, the major agricultural season along the Nile.

4. CRISIS IN THE LOCAL PASTORAL ECONOMY

The local pastoral economy suffers a severe crisis that has its most dramatic manifestation in herd de-capitalisation, transformation of people from livestock owners to hired herders and the depopulation of the area.

Field investigations indicated that livestock ownership in the area has significantly declined during the last 20 years, by approximately 70-80%. A considerable number of the households have in fact lost all of their animals and cattle ownership has completely disappeared. Table (5) provides estimates of livestock ownership per household at 4 major settlements in the area.

Table 5. Livestock ownership per household*

Settlement	Total no. of H/Hs	H/Hs owning animals	<5	5-9	10-15	16-19	20+
Timaid Hag							
el Tahir	258	232	45	62	56	35	24
Umm Hatab	105	105	6	40	28	18	13
Umm Isheira	125	94	13	26	37	11	7
Koa El Sireih	125	110	21	41	23	17	8

SOURCE: Fieldwork.

*Figures include both sheep and goats.

Depletion of animal resources has transformed the majority of the population to hired herders. The survey conducted among 64 households showed that as much as 80% of the animals herded were owned by absentee herd owners, who are basically riverine people, including merchants, farmers and government officials.

The influence of herd de-capitalisation in the area also makes itself strongly felt in the riverine strip, particularly to the east of the railway line linking Khartoum to Ed Dammer. Here numerous small villages inhabited by migrants from the inland areas, have been established. There is in fact a general and progressive decrease in the age of the villages with distance from the river, until along the outermost margin of settlement where one encounters the small and widely scattered villages inhabited by the displaced nomads. These villages are a legacy of the crisis in the pastoral economy of the inland areas.

The severe and prolonged drought of the early 1980s is commonly recognized as the major factor behind the current crisis. During that time, according to some informants, the ground was stripped of every blade of grass, and dead animals lay where they had fallen. The greater number of animals, however, was sold to the riverine people. One of my informants said that he sold them 10 cows for LS 1,000 because he was needy and the animals were dying. The devastating impact of drought, the resultant impoverishment of the pastoralists, and the transformation of livestock

ownership from their hands to the hands of the riverine villagers was vividly described by one of my informants saying that: The world is a drum and everyone has to take his dance. We (the pastoralists) took ours and now it is their turn. However, this time I do not think they will get out of it

5. CONCLUDING REMARKS

During the recent course of history, the pastoral economy of Western Butana has been profoundly transformed both as a production system and as a way of life. The severe drought conditions of the 1980s, together with the improvements of transport, proliferation of local trade centres and the marginal position of the pastoralists and their powerlessness, have contributed to the passing of animals from their hands to the hands of livestock investors along the Nile. This has forced the majority of the pastoralists to become paid herders hired by absentee owners instead of being independent owners and decision makers.

Available evidence also suggests that this situation, together with the expansion of agrarian capitalism and pump irrigation along the Nile, has significantly shifted the orientation of large score of impoverished pastoralists from the pastures of the Butana to the irrigated arable riverine lands, and they are becoming increasingly integrated into the agricultural life.

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SCARCITY AND CONFLICT IN PASTORAL AREAS: A LOOK AT THE OTHER SIDE OF THE COIN

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1. INTRODUCTION

It is argued that East Africa probably has the largest concentration of cattle, and an estimated 15 to 20 million pastoralists. Yet pastoralism continues to be discouraged by the respective states as one that is irrational and that encourages the destruction of the environment. Food is the most central component for the survival of man and whatever production system or strategy people adopt is designed to satisfy this basic need. Human beings require access to the environment for the sustenance of their lives, and the bulk of the knowledge they need for the procurement of this sustenance is acquired from the environment. In other words, environmental dependence is a fact of life. Therefore, as individuals try to eke out a living from the part of the environment they occupy, interdependence with other human beings is imperative. Indeed, the basic argument in human ecology is that organic energy - whose source is the sun - is limited and that since it is so, there will be competition among life forms thereby creating interdependencies. Within the confines of alternatives available from the physical, political and social environments, human beings adopt strategies that they pursue for their livelihood. This is conditioned by their physical, social, economic, and political environments. This is how I would like to analyse the pastoral production system practised by the Karimojong.

In a traditional pastoral economy producing primarily for subsistence, such as the one of the Karamoja, the basic understanding of the relationship and interdependencies between man and the environment becomes indispensable. This is because in such circumstances where there is virtually no input from science and technology, environmental factors

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such as rainfall, soil, temperature, and water dictate the limits on the means of food production exposed to those seeking to eke a living from the physical environment they occupy. Therefore, to the pastoralists, pastoralism is not just a mode of production but it is also a mode of consumption (Markakis 1993, 2).

In this paper, I argue that the situation in Karamoja is not only as is presented by most scholars and the media: that of perpetual disaster and conflict over natural and economic resources. There is also an order through the various institutions that have been developed by the pastoralists to make their mode of livelihood viable.

I use findings from the village of Rupa in Rupa Sub-county, Matheniko County, Moroto District, where I conducted research. It is appropriate to observe at this stage that it is common for many a Ugandan to use Karimojong as a blanket term to refer to all the groups from the Karamoja region, which comprises the districts of Kotido and Moroto. In this region, there are about 10 ethnic groupings, most of whom are linguistically related, though there are some that are distinctively different. However, it is the Matheniko, Pian, Bokora and Tepeth whom I refer to as the Karimojong. This is where I disagree with Ocan (1992) where he refers to all the groups living in Karamoja as the Karimojong. I would rather go by the identity that people label themselves with. Other authors have pointed out that the group called Karimojong comprises the Matheniko, Pian and Bokora - all found in Moroto District (Dyson-Hudson 1966; Lamphear 1976; Baker 1975). However, as I observe in another study (Otim 1999), the Tepeth are a group the Matheniko section accept and refer to as the Karimojong because they live the life of the Karimojong - taking part in all ceremonial and ritual ceremonies as the Karimojong. Today, they even speak the Ngakarimojong language. However, in an attempt to contextualise scarcity in Karamoja, I will briefly discuss the patterns of exploiting their environment (basically through the techniques of livestock management) that the local people have developed.

2. KARAMOJA: THE HABITAT

One significant factor affecting the survival opportunities and options in Karamoja is its rainfall, which is not only little (average annual rainfall ranges from 350 mm to 750 mm) but also unreliable with regard to when, where, how much, for how long it rains, and what area it will cover. The

rains are scattered, varying in amount from year to year and from one area to another.

The modes of resource use adopted by the inhabitants of this region are therefore directly related to its natural topographical conditions. Under such an uncertain environment, agriculture has failed to be a viable source of livelihood. Other studies have shown that on average four out of every five crops result into failure. This is why the Karimojong have adopted herding as the best means of survival.

The ability to access the dispersed forage and watering points offers the best protection against the unreliability of rainfall. The practice of mobility therefore becomes central to the survival of the herds and this means constant periodic movement in search of forage. It is the ability to move the livestock to where water and grass can be found, both within the region and beyond, that renders herding more reliable than agriculture which - in a place like Karamoja that relies on rain-fed agriculture - is dependent on whether there is rain at the location where the crop is planted.

Whereas subsistence agriculture continues to be practised in Karamoja, it has been at the mercy of the unpredictable weather. Sorghum is the main crop planted by the Karimojong and it is used both for food (mainly for making porridge) and for making beer. The decision of whether or not to plant seed is normally a gamble because of the unreliability of rain. Therefore, seeds are normally broadcast with the first rains, but if there is a dry spell during the growing season, the young crop normally withers away and new seed has to be planted with the next precipitation.

While at Rupa, I was hosted by Apemago, one of the chief elders in the village. His elder son, towards the end of my stay there in April of 1998, was making a third attempt to plant sorghum seed. He had planted the first around December the previous year. This was the time when seasons all over the country were affected by the so-called *el nino* phenomenon. The result was that most regions experienced rainfall during times when, under previous conditions, it would be the dry season. Confused by these changes, people planted their crop whenever they felt that there was extended rainfall. This was also fuelled by the fear that they might let go the only rains of the time. This was the fear that drove the son to plant in December - a month he knew the region never received rains. Each of the

first two crops germinated but withered with the extended sunshine that followed. This did not deter him from planting the third. "The main difference, though, was that on the third attempt he planted only one garden unlike the three he had planted in the first attempt. Tilling of land in Karamoja is predominantly by the use of ox-drawn ploughs, and this is probably the only part the men play in food production. With the failing crop, the son did not want to bother about bringing the oxen from their grazing area to plough the land. My immediate inference was that this was not a typical situation because of the effect of *el nino*. Sometimes drought strikes during or about the time the crops are flowering, in which case it would be too late to plant another crop because the rains would soon be stopping. This results in crop failure. In the course of this study, a number of such cases were encountered. Previous studies have argued that crop failure in Karamoja occurs in cycles of every four to five years (Dyson-Hudson 1966; Mamdani, Kasoma, and Katende 1992) - which shows that agriculture in this region is a risky business. Although agriculture remains an important source of food for the Karimojong, the unreliability of harvest means that the people cannot depend on it under rain-fed production conditions and its role as a source of food remains as a supplement to animal products. In other words, the main diet for the average Karimojong is composed of animal products, and agricultural products come in only as supplements.

This is a position that can easily be contested, but I think it is important to consider the Karimojong diet all through the seasons of the year. The consumption of agricultural products tends to become more frequent during harvest time and in the dry season. During the dry season, the agricultural products are purchased for consumption, mainly after selling some livestock. This arises because of a number of factors. First, the productivity of the cattle, which provide both milk and blood, is drastically reduced because of scarcity of water and pasture. Supplementing the meagre harvest from the livestock therefore becomes inevitable. More so in the dry season when the livestock is driven far in search of water and pasture such that there will be only occasional supply of animal products to the homesteads. Secondly, after harvest, much of the food consumed both at the homesteads and in the grazing camps will have more agricultural products - simply because there is supply of food crops. The duration this lasts depends on the harvest. For the two months that we spent in the grazing area, we had only two meals that had agricultural

products: one of sorghum porridge mixed with sour milk and the other of boiled sorghum; otherwise, the diet comprised milk, blood and dry berries. I will return to this point a little later.

3. THE SETTLEMENTS

As alluded to in the previous discussion, the Karimojong maintain two types of settlements: the permanent settlements, *ere* (pl. *ngireria*) - which are the dwelling for mainly women, children and the elderly; and the temporary settlements *nawii* (pl. *ngawuiyoi*), which are set up in the grazing areas, are the dwelling of the warriors and the young boys. Dyson-Hudson (1966) and Ocan (1992) argue that the Karimojong have maintained this pattern of settlements for long. The permanent settlements are located in the central part of the region, whereas the temporary settlements are located wherever the camp will be at any one time, which normally is far from *ere*. In an earlier study (Otim 1999), I described a third type of settlement that arose in the past ten to fifteen years, which I called the “transition *nawii*”. This type of settlement is found between *ere* and *nawii*, and carries the characteristics of both. Briefly, it is a semi-permanent settlement lasting a few years in the same location. The structures are temporary with the huts built from grass only - as opposed to the mud-and-wattle type found in *ere*. In addition, the outer fencing is constructed from thorn branches akin to the one at the grazing camps, as opposed to the neat woodwork at the homesteads.

The Karimojong do not have a specific name used to refer to this settlement, and it is called *nawii*. They differentiate between the two “*nawii*s” by referring to who heads it. The transition *nawii* today is predominantly the dwelling of the elders. They have found it appropriate because it offers them the opportunity to monitor what takes place at the grazing camps. Above all it offers them steady supply of milk and blood because of the increased number of livestock kept here - much larger than what was kept at the homesteads. The set up shares the features of both the homestead and the *nawii*. It has some houses - but built from thatch all through. The elders and some families of the warriors live there. Many warriors also stay there to protect the substantial number of stock, both large and small.

The homesteads, on the other hand, consist of sleeping houses made of mud-and-wattle walls with grass thatch roofs. One can see some granaries

for storage of grain and other domestic effects. There are also roofless enclosures called *etem*, made of wood as high as two to three meters closely put together. Some skin is put at the top to provide shade inside. This serves as the living rooms for the head of the homestead (a male in a patrilineal society like Karimojong), where he sometimes meets to chat with his contemporaries. Within the homestead, one also sees what were corrals for some of the livestock - basically milking cows that used to be kept in the homesteads to provide milk - but are now with scanty fences (much of the wood having been used as firewood) and with overgrown grass. Enclosing all these is a wood and thorn fence with a single entry.

The grazing camp itself is a temporary set up with a perimeter corralling of thorn twigs and branches. Within this fence are divisions separating the different stocks that belong to different individuals. During periods where relative peace is felt, some women move in to stay with their spouses. In such cases, structures akin to *etem* are erected and it is here where the wives, sometimes with their children, live. These are temporary camps located some two-hour walking distance from the homesteads, and they last from a few weeks to a few months in the same location depending on the availability of mainly water for the stocks.

In the past, there used to be some livestock left in the homesteads to provide milk and blood. However, with the escalation of raids, these stocks increasingly posed danger because they are target for raiders. During such raids, many lives would be lost because the enemy would sometimes burn down the settlements. Therefore, in a bid to curb such disasters, the Karimojong decided not to keep livestock near the homesteads. I see this as the cause of the “transition *nawii*”.

4. LIVESTOCK MANAGEMENT

I would now like to give a picture of how the Karimojong manage their herds. As mentioned, cattle offer the best opportunity of survival for the Karimojong and they mean a lot to them. Their social, economic, and political life revolves around cattle. From the point of view of human ecology, the Karimojong, like all life forms, need access to energy to survive and reproduce, which is energy from the sun. It is plant-life, through photosynthesis, that converts this energy to forms usable to human beings. Since agriculture in Karamoja is not viable under rain-fed conditions, as I have described above, and with no opportunities for

irrigated agriculture, the Karimojong have to access this energy through another form if they have to survive. Therefore, they have to access it as secondary consumers and this is where livestock becomes important because it is able to transform the energy stored in the grasses, herbs and shrubs - that human beings cannot extract directly - into a form available to human beings. I use this to argue for livestock as a central factor in the survival of the Karimojong.

To maximize the ability to extract energy from the varied vegetation, the Karimojong keep livestock that graze and browse - both large and small. Whereas grazers like cattle and sheep prefer lush vegetation, goats and camels can survive by browsing on shrubs. By keeping both categories, they are able to make a more comprehensive use of their varied vegetation. Related to this is the labour required to tend and protect the livestock, and the entire community, and I shall return to both a little later.

5. CATTLE RAIDS IN KARAMOJA

Conflict is a common phenomenon among pastoralists in general (Markakis 1993), and it all centres around the struggle for exploitation of a fixed supply of natural resources like water and pasture, within limited space, which are critical for the survival of livestock - and therefore the pastoral communities themselves. The literature on the Karamoja indicates that focus has been put on showing the crisis, violence, and disaster that have plagued the region with very little, if any, focus on positive aspects of pastoralists and pastoralism (Dietz 1993; Mamdani, Kasoma, and Katende 1992; Ocan 1992; Otim 1996). The Karamoja has been painted as an irrational people who take delight in stealing from each other and from other communities who keep cattle. Therefore, to most Ugandans, Karamoja denotes cattle raids, crime, and chaos.

Various reasons have been given for raids in Karamoja. Dyson-Hudson (1966) gives an account of various raids that occurred in the 1940s and 1950s; what clearly comes out is that these conflicts were over the available resources - over water and pasture for the herds. Over the years, the form and content of raids changed. In his paper, Ocan (1992) analyses the causes of cattle raids in Karamoja between 1970-1990. This period saw the most widespread and violent raids, not just within Karamoja but also mainly against the agro-pastoral neighbours. In a report prepared for the program on International Peace and Security at the Social Science

Research Council, New York, I presented a causal account of cattle raids in Karamoja (Otim 1996).

Indeed, pastoral areas are plagued with chaos and violence - and on the surface, this would seem the order of the day in these regions - that is why most reports and accounts of life in these regions tend to present this one-sided picture. However, one thing that is often left out is the fact that amidst this seemingly chaotic situation, there exist forms of order at various levels of social organization of the Karimojong. In this paper, I limit my focus to the organization in the grazing areas that is meant to foster sharing of resources and to provide security to both man and animal.

Society is dynamic, and various changes have occurred within the internal fabric of the Karimojong society. Whereas raiding was carried out, using spears, as a primitive way of restocking, and was sanctioned by elders, today it is done using sophisticated modern automatic weapons under the command of warlords, sometimes for selfish reasons (see Storås, this volume).

6. ALOMAR: THE OTHER SIDE OF THE COIN

Sometimes we struggle to get words that best describe what we observe out there in real life. Of course, any translation into English, or any other language for that matter, of what we try to describe may not bring out the “real” meaning of what we try to describe. Nonetheless, we do it to communicate what we observe. This is the trouble I am having with differentiating between *nawii*, *alomar* and *adakar*. On the surface, they all seem to refer to the grazing camps, and that is what my interpreter insisted on. I think he is a victim of what I have just mentioned: the difficulty of translating. However, on scrutiny my understanding is that *nawii* refers to the location, the grazing camp. On the other hand, *alomar* and *adakar* are used to refer to specific *nawii*: they say *alomar ngin a’Nakorile*.

It is the composition and dynamics of life in *alomar* that I analyse here to show that much of the life of the Karimojong revolves around cooperation and forming alliances for their survival. It is at *alomar* that one can see how the Karimojong cattle mean many things (Dyson-Hudson 1966, 391); an understanding of the herding systems and the dynamics therein that are bent towards safety and sustenance of the herds is critical. Each of the

ngalomarian has a leader - who in effect is the chief warrior. In an earlier study (Otim 1999; Dyson-Hudson 1966), I describe the Karimojong traditional political system, the age-set and generation-set system, and try to show how changes in this institution are reflected in political leadership, and in the control and use of resources.

The *kraal* leader is self-appointed and he gets a following because of proven military prowess in previous raids and wars. He will have shown wit in strategic planning and a sense of good foresight on how to react to perilous situations. Since the current situation in the region is such that the chances of maintaining livestock depends on the ability to protect them against raiders, it is therefore imperative that matters of security take precedence. It is because of this that stockowners rally around the militarily powerful to ensure protection of their herds.

Ngalomarin are organized in a highly militarised form where you have patrol groups and defence lines in each. The first impression I got upon arriving at this *alomar* of Nakorile was just a faint idea of some Karimojong gathered in the bush with their livestock looking for water and pasture. I was later to discover how intricate the organization of everyday affairs in this part of Karamoja is.

When we first arrived at this *adakar* - which was more than two hours' walking distance from Rupa village - there was nothing so spectacular. Probably this was because I was expecting to be questioned about what I was looking for - especially because we had invaded a place where the community's treasure was kept. However, because we had received approval and blessings from the elders back in the village, we did not experience any problem. We were shown to the assistant *kraal* leader, an elderly but strong-looking man. He informed us that Nakorile, the *kraal* leader had spent a night at the village with one of his wives. However, he soon arrived, carrying his Kalashnikov. He wore a military shirt and beret, and had a mean-looking face. He had a sheet wrapped around his waist but extending only up to knee level. When he spoke, he did not shout as one would have expected of a commander or general, but his voice rumbled in a murmur - with Clint Eastwood type of eyes. Looking at him reminded me of Goffman's book *The presentation of self in everyday life*, in which he focuses on face-to-face interaction between individuals (Goffman 1959). He discusses how individuals act out the impressions they want to create about themselves in accordance with the prevailing

situations. In this management of information, the player gives the information that he wants the others to get of him/her.

As our interpreter introduced us and explained our mission to Nakorile, he just listened and remained composed, punctuating by peering through his half-closed eyes and nodding. The way he conducted himself left no doubt in me that he was indeed in-charge and the leader of all those armed men we were seeing all around.

Anyway, at the end of it all he welcomed us to stay in his *kraal* and that we were free to find out whatever information we wanted. Since the livestock had already been released and virtually everybody was on the way either to the watering points or to the grazing grounds, we followed suit and ended up at Lomuno River where small stock and calves were being watered. Like most other rivers in Karamoja, Lomuno River has water only when it has rained somewhere and it just plays the role of drain. At this time of the year, the dry season, it was just a sandy winding valley. However, in this seemingly dead valley, the Karimojong know where to excavate for water. In this section, holes as deep as 4 feet are dug out and water seeps from the riverbed. The young men and women then take the task of drawing that water out and pouring it into wooden troughs (*ngatuba*) from which the animals drink. In turns, they did this until all the livestock had drunk their fill.

It was while the different herds were being brought for watering that I realized that it is the young boys - some as young as 5-6 years - who are responsible for looking after camels, calves and small stock. Other than the calves, the rest of the animals are browsers, so these young boys do not have to go far as the animals browse on the shrubs and bushes not far from the camp. While the watering was taking place, some older ones watched and gave instructions, while others slumbered under the cool of the shades. I, later, learned the intricate organization of tending livestock. One point that should be understood is that each *alomar* has a territory within which it is free to graze the stock. The boundaries are vividly known to all members of each *alomar*; a team of well-armed young men traverse this territory daily to search for any foreign footmarks - which would imply enemy spying. Before the cattle are released, they leave ahead and walk through the region up to where the cattle will eventually be watered. These are some of the young men slumbering at the watering point looking oblivious of what is happening around. They will have

ascertained that there is no enemy in the region and rest out of exhaustion after the trek. After the cattle have been watered, they stay behind - just to make sure no one takes advantage of attacking from the rear.

Since this force is far ahead, the young boys feel secure grazing the small stock within a few kilometres of *nawii*. These young ones ensure that the animals they are herding get enough to eat and drink. They are taught to make decisions on where to graze and to plan for regeneration of vegetation. Of course, they do this with the guidance of the older ones. The older members of the *alomar* - including the leadership - spend much of the time visiting the different parts of their territory and constantly planning how to tighten security and how to avert an imminent raid.

A slight distraction from such defence strategies results in disaster. When we visited Nakorile's *alomar*, they had just relocated there after sensing an imminent raid from the Jie. However, they had not totally escaped from the threats. During sacrificial killings, diviners "read" the intestines of the slaughtered animal to predict the future. In one sacrificial slaughter, the diviner informed the members of the *alomar* that there was an imminent raid from the southeast and suspected the Pokot. The antidote to this raid was to be the sacrifice of a grey he-goat. For many weeks thereafter, all that was done was to echo this threat. In the meantime, one of the bulls of the *kraal* leader had been stolen and information on who stole it filtered back. The group then made frantic efforts to a peaceful solution, and a series of meetings with the clan members of the suspected thief were held. It is apparent that the enemy discovered the lax in security because most of the warriors were involved in these meetings - probably to show solidarity - and as a show of strength. One fateful afternoon, about 4:00 p.m., raiders struck just as the young boys were returning cattle after watering. It was possible that the raiders decided to strike after seeing the cattle were herded only by four young boys. The raid left one of the boys in Moroto hospital with a bullet through the thigh, and over 4000 heads of cattle stolen (see Storäs, this volume). This is just an example of how a slight lax in vigilance can result in a catastrophe. The roles and responsibilities of these herders cannot be underestimated.

As I have mentioned above, the different *ngalomin* have specific territories within which they graze their livestock. This is in agreement with neighbouring *ngalomin*. The agreement involves equitable access to pasture and water. The leaders agree on sharing water in terms of

whose cattle are watered at what time of the day. This is in a bid to avoid conflict between the herding boys who normally fight over who should water first. In terms of fighting the enemy, it is also common for neighbouring *ngalomarin* to ally for defence. It is important to note that close *ngolomarin* normally belong to people from the same section - which makes it easy for them to ally against a common enemy. For instance, the Matheniko *ngalomarin* in the northern part of their territory often ally to ward off attacks from their common enemy, the Jie.

The constitution of *ngalomarin* is not permanent and members join and leave at free will. However, it should be noted that individuals do not keep all their livestock in one *alomar* but rather spread them over two or more. This is meant to spread risks in that if stock from one *alomar* is lost, one can at least turn to what is in another *alomar*. This therefore calls for adequate labour to contribute to the demands of each *alomar*.

Nevertheless, there might be a dark side to these alliances. Large raiding parties are never from one *alomar*, but from a constellation of members from various allying *ngalomarin*. These raiding parties are normally organized under one leader who, with the help of the other warlords, develops a plan and then assigns roles to the other warlords. It is these types of raiding parties that receive blessings from the elders and comprise a force ranging anywhere from 100 to 500 warriors.

8. CONCLUDING REMARKS

This paper argues that though the Karimojong are known to be ferocious raiders, it is important to look at the mutual alliances they develop for purposes of maintaining harmony in resource use amidst the scarcity and chaos. These alliances are important for peace-building and maintenance of security. Human beings cannot exist in isolation but require the help of each other for the common goal of survival. In the semi-arid region of Karamoja, these alliances are important for competition of the scarce resources the physical environment provides. In this militarily volatile region, they have also been used for both aggression and defence, both of which are, ironically, survival strategies.

The vigilante system tried to use these alliances but did not go far despite the results being positive. The frantic efforts towards peace-building in the region need to reflect on these alliances.

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REPLACING THE PASTORAL STAFF

*Frode Storås**

Just before Easter, I visited a 14- year- old boy by the name of Lorem at the Moroto Hospital in northeast Uganda. His thigh had been ripped open by a bullet from an automatic weapon (see Otim, this volume). He was in severe pain after being transported on a donkey for several hours to the local hospital. During the previous weeks I had been together with him and his friends and the livestock they were caring for on the savannah. No longer do the shepherds carry their pastoral staffs. Now automatic weapons are strapped over their shoulders, as they follow behind the cattle, sheep or camels.

At that time, the Norwegian hand weapon initiative, NISAT, together with the United Nations, was hosting a conference in Oslo to discuss the problems associated with hand weapons, with focus on Western Africa. The situation is dramatic as well in Eastern Africa. In this paper I will refer to the situation in Karamoja District of northeast Uganda where Peter Otim from the Centre of Basic Research in Kampala and myself conducted fieldwork earlier in 1998. The Karimojong people cultivate their fields when there is sufficient rain, but their ties socially and culturally are mostly with their livestock. The same kind of adaptation is found among neighbouring groups in Uganda, in Sudan, in Ethiopia, and in eastern Kenya. Several of these groups have the same ancestry, but are at the present competing for pasture, water and animals.

Earlier studies of the Maasai (Jacobs 1963, 1965), the Samburu (Spencer 1965, 1973), the Borana (Baxter 1954), the Somali (Lewis 1961), the Karimojong (Dyson-Hudson 1966) and the Turkana (Gulliver 1951, 1955) were all conducted among pastoral groups who, according to these monographs, lived in some sort of balance with their natural environment and were relatively unaffected by changes which led to upheavals among

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neighbouring agriculturists during colonial times. Since these studies were based largely upon the tenets of British “structural-functionalism” and American “cultural ecology”, they emphasised local pastoral systems as self-contained entities. But more characteristic for these societies was the fluid boundaries and highly adaptable populations who in some periods maintained extensive relationships across borders through trade, marriage and individual friendship, and in other periods made attacks to secure additional grazing or conducted smaller or bigger raids to get additional herds of livestock. Furthermore, neighbours could help in bad times; the Dassanetch of Ethiopia, for instance, made available arable land along the lake shore and river courses for cultivation by destitute refugees for neighbouring Hamar, Arbore and Turkana (Sobania 1991, 125). So do the Mathineko of Karimojong in periods when their neighbouring Turkana groups need to escape the drought in the Rift Valley.

Internal tensions and conflicts have often been resolved by individuals and groups breaking up and moving away from each other. The scarcity of resources resulting from population growth or drought could cause smaller groups to agree to seek their fortune elsewhere. Disputes over cattle and pasture are recurrent themes in legends that explain the fission of groups. Also population pressure has been focused on as a decisive factor causing people to move (Sahlins, 1961; Newcomer, 1972)¹. Thus, certain groups have expanded, or split up and migrated, while others have been pushed off, or assimilated. Although people have not been continuously on the move, the history of East Africa and other places in Africa describes groups that have divided, some that have remained where they are and others that have migrated elsewhere. And this seems to have been a more or less continuous process for centuries. None of the peoples now occupying the area west and north of Lake Turkana describe themselves as the original inhabitants of their territories (Turton 1991).

Whatever caused it, and although it was not always their explicit intention, expansion enabled specific groups to secure new and perhaps larger grazing grounds for their own stock and the animals that they had acquired through raids.

The fission and fusion of different groups of people are processes that are still in many ways going on in several places in Africa. The borders of today between countries and districts set restrictions to these kinds of solutions. Still, as we see in Congo, people can fight across borders when

ethnicity, or the feeling of belonging to a group, are utilized as a basis for mobilization. The competition for resources can be a cause. Clever, and very often cynical, leaders' struggle for power another.

Weapon dealing has had a long and prolific time in Africa. As the western and eastern world are disarming their forces, the weapon mongers are doing their bit to feed the fire in the south.

The arms race between the various groups in northern Uganda started with Amin's sudden flight from the country in 1979. The scouts of the Tepes people on the Moroto hills first discovered that the military barracks in the district were abandoned in a hurry. It did not take long before the weapons were transported by donkeys and spread all over. Filled with newfound courage and arrogance, people carrying weapons attacked and raided for cattle and other livestock. These raids created the necessity for the ones being attacked to also carry weapons. At this time the civil war was developing in southern Sudan. The war created an inlet to the region for hand weapons, which were distributed to 'its neighbouring countries. Being ahead of their neighbours in this race, the Tepes were successful in their raids. However, the cattle they raided failed to thrive in the mountains. The Tepes made friends with individual Karimojongs to look after their cattle. Being well armed, the Tepes were gradually welcomed to join *adakers* of Karimojong groups. (The *adakers* are units of herders who work together to protect their livestock.) The relationship between the Tepes and the Karimojong in many places developed in such a way that people now refer to the Tepes as being a sub-group of the Karimojong. Tepes children have started to use only the language of the Karimojong, and many do not even know their mother's tongue, a language very different from the language of the Karimojong.

As of today, the situation in southern Sudan seems to function as a vacuum cleaner for weapons from all over the world. The nomads are no longer only seeking modern weapons, but may choose from a wide selection. Especially popular at the moment are weapons from South Africa, as they are lighter to carry than others. At the village Pirre, close to where the borders between Sudan, Kenya, and Uganda meet, there is a large open market for weapons and ammunition. Before the war in the Sudan, they got one or two bullets for a cow; now, at this market, they measure the ammunition using Blue Band boxes as they do when measuring grain for sale. And it is possible for smaller merchant dealers to

exchange an automatic weapon for the price of two to four cows. Although the market in the northern parts of Uganda seems to be congested, since everyone here has arms, the trade is lively. People are buying four to five automatic weapons, walk by foot over the savannah and down the escarpment to Kenya, and then especially to the Pokot people who easily will offer double the price for a weapon. They on their side also make a healthy profit selling the weapons further on.

In northeast Uganda, all males older than 12 years carry automatic weapons. They carry and use the Kalashnikovs as well as the pastoral staffs they used to carry. Our host in Karamoja, Apamago, lost a daughter. She became a coincidental victim of the bullets from three drunken youths celebrating Christmas last year. It took three days for the gunmen to be identified, and the person firing the shots was taken by a crowd of people to the scene of the crime and executed. The body was left at the spot for the hyenas. A neighbour of Apamago went into hiding after firing his gun accidentally at a party, killing a youth. In January 1998 more 200 men were constrained on the way south to raid the Upe (i.e., Pokot of Uganda). The men were going to avenge a total failure of a raid the previous year when 116 people were killed.

At the beginning of this century, only the colonial administration had arms. They pushed the different groups of people around to pacify them. The Mathineko of Karimojong were moved north of Moroto hills and away from the Upe. Still they claim land and water at their "original" homeland. Thus, the tension between the different groups relates to land and water as well as livestock raiding. Among the many rules and regulations that came into force in the colonial period, Sobania (1991, 139) argues that the imposition of grazing boundaries had the greatest impact, as once relatively fluid societal boundaries became crystallised. The flexibility by which pastoralists had survived the changing conditions of their environment was restricted by governmental regulations. The artificial boundaries added more stress to these societies, a stress many have claimed was brought about because pastoralists routinely overstock and overgraze (Stebbins 1935; Brown 1971; Lamprey 1983). This assumption has been very strong in the development policy in these regions.

The question of ecological viability that was focused on in this context relates to the balance between off-take and regeneration. This balance is a

result of different factors: a) the demographic factors, i.e., birth and death rate, and emigration and immigration, b) grazing regime, i.e., rotation or permanent, and c) socially regulated mechanisms, such as coordination of individual investment strategies, quota regulations, and mechanisms for excluding users from a territory. Since animals produce more animals, this must logically have implications for the use of pastures. Growth is the normal state of affairs in a pastoral production system and “under normal circumstances there is no need for the herd owner to do anything in particular to achieve growth. As long as the herd owner does not make a positive decision *to stop the growth* by removing animals from the herd, the herds will continue to multiply!” (Helland 1990, 169). Thus, whatever the carrying capacity of the pastures may be², in case of a growing pastoral enterprise access to pastures may become a problem. Ensuring sufficient forage and water for the animals must therefore be a major concern for a pastoralist. The herders may have to move their animals close to the enemies and also into the land of the enemies if they feel superior in strength. The boundaries are not fenced and not all over crystallised as Sobania (1991) argued. People and animals now and then do cross to find pasture and water, and to raid the animals of their enemies. This summer Karimojong groups went on a raid all the way to the vicinity of Mbale town.

From what the military leaders of the district say, the governing forces may disarm the people by force, but the same leaders cannot guarantee the security of the people and their livestock. They do not have the resources. As long as the neighbours on the other side of the border are heavily armed, the governing forces of Uganda are expecting that the people in this region will defend themselves. The military strategy is now to get the traditional warriors on their side as vigilantes. These warriors are organised in units (*adakars*) where many families go together to herd and to care for animals and watering places. These units have their own leaders, chosen for personal qualifications, and it is accepted that these leaders co-operate with the military governing forces. The vigilantes are in return given ammunition and a symbolic wage. This ammunition is for defence only. The military leaders claim that a curse is attached to this ammunition and if used for attacks the result can be disastrous to the raiders. The fatal unsuccessful raid when 116 of the Karimojong were killed in 1997, just proved this, an army leader told us he had explained to the people.

There have been many peace talks. Only one has lasted after long meetings underneath the shady acacia trees on both side of the border; the elders of the Karimojong and their neighbours, the Turkana, agreed on peace in 1973. During a big ceremony by the border, a razor blade was buried. Razor blades are used to shave the heads of mourners, and were to symbolise the end of killing. A spear, and a knife were buried together with the razor blade. The participants wanted to bury a bullet and a rifle as well, but did not have any, and asked the representatives of their respective governments for a weapon to bury. The governments on their side argued that it was not their weapons that had killed people here, and did not want to be drawn in as a part of the ceremony. Rifles were seldom used in raids those days, and therefore the ceremony was fulfilled with blessings between the parties without having a rifle buried. When this peace treaty is referred to today, this point is always emphasised. Still an effort is made to uphold the peace. Marriages across the border tie people closer and marital relatives settle down together with their brothers-in-law among previous enemies. Situations threatening the peace are constantly occurring. This is mostly due to young warriors with modern weapons who want to try a raid. These are instantly defined as criminals, spoken to and fined to sacrifice an ox or two to the elders. To prevent the peace from being broken in especially tense situations, the elders have created a fire lane between the Karimojong and the Turkana until the situation has calmed down. People are fully aware of the serious curses that will follow the one, or ones, who break the peace. These are curses that were uttered in connection to the peace treaty, and are very severe.

To raid for animals is an efficient and quick way of increasing the herd, often after losing one's animals in a raid. Every one indulges in this practice, and there is a lot of prestige in a successful raid. Not the least, the women show great enthusiasm in heating up and praising their warriors. Several raids after another may result in controlling new fresh water resources, and a new graze land and from such a perspective, they can be a part of an expansion. "Peace is threatened by modern weapons in the hands of the young, but it is upheld by old beliefs on the forces of the curses the elders administer. Respect for the elders is deeply rooted in Africa. Stories about sufferings due to curses are constantly told to remind people about how important it is to respect the elders. When young people show off, reactions are swift and severe.

One of Nakorile's oxen strayed from a herd of cattle. Two youths found the ox, and they herded it to the town where the ox was sold and slaughtered. Nakorile mobilised his men and went to town where he held a large meeting about how important it was to strike hard on such disrespectful behaviour. It was suggested that the two youths, and the ones helping with the slaughtering, should be punished and fined. While this meeting was going on in town, the enemy attacked the cattle camps, of which Nakorile was the leader. Only a few youths came back to defend the animals. When Leorem was shot, the rest of the shepherds concentrated on defending him from being killed. They lost 400 animals. Leorem knew he would spend a couple of weeks at the hospital, but when he became well, he would be at the forefront to raid for revenge, and to try to get the lost animals back home to his father.

The raiders turned out to be some youngsters from the Tepes. Nakorile and his group decided to confiscate the animals of people from Tepes that were kept in his *adakar*. But the Tepes promised to do whatever they could to retrieve the lost animals. Together with the Tepes elders up in the hills, the Tepes living on the plateau among the Karimojong went off to find the animals.

Many among the elders express a sincere concern about the many young people acting very disrespectfully. The weapons give them power and the arrogance to use it. The elders' authority is based on tradition as well as the mystical power related to cursing. Again and again stories are told about persons and situations that show how powerful a curse can be. This, of course, is told to remind especially the young men to behave, i.e., to raid their enemies, not their friends.

We know the losers in this game. In this raid only Leorem was hurt, two days later people among the Jie attacked a camp a couple of kilometres north of us, taking all the animals they could bring along and killing 8 men, wounding several others. It is not easy to point out the winners. They are the weapon dealers and the weapon producers. Africa has enough simmering and glowing conflicts that may be set on fire. With their weapons the dealers are pouring petrol on the glows. The war in southern Sudan creates a favourable situation for the weapon dealers. We know the situation in Somalia, Uganda, Congo and Angola. Now the turn might be coming to the densely populated Kenya. There are strong economical powers fighting against those who work for peace. The hand weapon

conferences and all those concerned with the many conflicts in Africa must address the weapon trade and all the economic interests connected with it. The conflicts on the ground are something people must solve by themselves.

NOTES

1. Raymond C. Kelly (1985, 69), for instance, argues that population growth was rather a result of expansion, since “[t]he Nuer assimilated very large numbers of Dinka and the Nuer population increased very substantially as a result. This strongly suggests that population growth was primarily a consequence of Nuer expansion rather than a cause, and thus casts doubt on extant explanations that invoke or depend upon ‘population pressure.’” Kelly (1985, 7) also points out that the underlying explanation of Nuer expansion “...focuses on the manner in which the Nuer bride-wealth system establishes social requirements for cattle. The latter effectively determine the size, composition, and growth characteristics of Nuer herds, thereby defining the extent of Nuer grazing requirements. Recurrent shortages of dry season pasture (that are ultimately attributable to bride-wealth requirements) provide the immediate impetus to successive rounds of territorial appropriation.”

Jan Hultin (1987) who studied Oromo expansions in Ethiopia and Kenya, has also emphasised socio-cultural explanations of migrations:

“There has been no real attempt to explain the causes of the expansion other than with reference to climatic and ecological factors, or to population pressure, and neither case has been convincingly presented ...I am seeking the causes for the expansion in the social structure and in the system of values of the Oromo. The analysis is limited to two factors - there are certainly more - that seem crucial: one is the privileged position of the first borne son, and the other is the ideological motivation for the raids” (Hultin 1987, 16).

2. Researchers have examined the carrying capacity of pastures and the numbers of livestock which could survive in given areas (e.g., Pratt and Gwynne 1961). There are well-established methods for examining this in temperate zones, but in African arid lands, in particular, these methods are inadequate and give wrong results. The World Bank, for instance, concluded that the animal population of Mali was irresponsibly large and demanded its dramatic reduction as a precondition for support. A French consultancy firm

using other models produced a very different estimate of the proportion of animals to pasture in Mali (Breman 1988).

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COPING BY SMUGGLING IN THE HORN OF AFRICA: SUDAN AS A FOCAL POINT

*Mohamed Hashim Awad**

1. INTRODUCTION

Smuggling is a universal phenomenon and is as old as human association. It originated in 'man's first attempts to deny others some rare possessions - be it a commodity, a tool, or a technique - which he sought to reserve for himself and close associates. Ancient Egyptians guarded well the secret of preserving the body of their dead, but the As-Syrians failed to prevent the Cushites from acquiring the art of smelting iron for use in making weapons with which they crushed them. The secret was smuggled to the Cushites from whom it spread to many parts of Africa. Today smuggling is still rampant in the realm of technology despite stringent secrecy; but it is most widespread in tradable subjected to restrictions. In fact, smuggling today is the most organized form of international trade. Illicit trade in narcotics, for example, is organized on a global scale by some of the most sophisticated trans-multi-national syndicates. Most of the smuggling originates in Latin America and Asia and ends in the United States and Europe. Dealings in narcotics are put at \$400 billion, the equivalent of 2.28% of world private consumption (compared to a ratio of 4.9% spent worldwide on education, of which less than 1.0% is private spending). While most of the super profits of trade in narcotics are reaped by the big bosses, street dealers who number millions bear the brunt of police action and penalties in return for a fragment of the vast return of their operations.

Africa is considered a relatively small market for international operators in narcotics, but for dealers in armament it is of greater significance, now that the centre and north of the continent are areas of widespread clashes, the likes of which have been quelled in its southern part. Yet, 'the smuggling of arms into Africa is relatively small compared to the illicit trade in its crops, livestock, wildlife, minerals, and relics. Most of the

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traffic in these items is organized at the national or regional level and performed by small town and village operators, most of whom are engaged in the trade as a means of coping with escalating costs of living.

Items of historical values, skins or horns of wild animals, valuable minerals and gum Arabic are demanded mainly by the industrialized North. However, most of the smuggled items in the Horn of Africa are moved within the region and to North Africa or the Gulf states, in exchange for sugar, liquor, clothes, electronics, appliances, cars, and light weapons. The bulk of smugglers dealing with these products are small farmers, pastoralists, truck owners and drivers, camel owners, storekeepers, wildlife guards, tribal notables, customs officers, frontier guards and bankers. For most of these, need and not lust for lavish life is what impels them to engage in smuggling.

Within the Horn of Africa, smuggling is mostly a continuation of centuries of human, animal, commodity, and capital movements across what have now become official frontiers of Eritrea, Djibouti, Ethiopia, Somalia, Sudan, and Kenya. Much of this movement continues with full knowledge of the authorities on one or both sides of the borders, although it is officially described as smuggling. Even when relations sour among the countries of the Horn - as is the case now - this illicit trade is condoned rather than condemned. Sudan's sizable overt and covert trade with all its neighbours, including those with whom it has strained relations, (such as Egypt, Eritrea, Ethiopia, and Uganda) demonstrates this vividly.

2. COPING BY PETTY SMUGGLING

In Sudan petty smugglers include:

- Herdsmen who march livestock across borders from Sudan to Libya, Egypt and Eritrea
- Truck drivers who transport smuggled grains, gum Arabic and cotton fabric to Eritrea and return with liquor, sugar, and valuable appliances and software
- Air- and sea-passengers who smuggle hard currency and gold from the country and return with luxury goods, like cosmetics,

fine clothes, video-recorders, satellite receivers, watches, cigarettes, confectioneries, and heroine

- Armed gangs in western Sudan which smuggle out of Sudan sugar and cereals in exchange for firearms for use by bandits
- Armed poachers from Uganda who hunt in 'no man's land' in the war-torn southern Sudan for wildlife trophies
- Traffics in Sudanese, Kenyan and Ugandan products in exchange for luxury goods and arms in the "golden triangle" linking these countries

Most of those engaged in the types of smuggling described above are small traffickers, very few of whom are members of organized bands (which is usually the case with arms smugglers and poachers only). Fewer still are those who finance their trade. In most cases, the financiers are businesspersons who operate from behind the scene. The petty field operators bear the bulk of trading risks. They all belong to countries with the lowest per capita incomes in the world, which have high poverty incidence, and which either are suffering or had suffered from costly civil wars. This renders large segments of their population to engage in risky ventures that enable them to lead a tolerable life; very few of them are prepared to take bigger risks in the hope of "striking it rich".

The risks that smugglers face include arrest and punishment, cheating by employers, harassment by embezzlers and desertion by disapproving family members and acquaintances. Set against these risks are the prospects of a better living and social standing, decline of moral values in impoverished societies, and the growing prosperity of underpaid watchmen who accept smugglers' bribes. Law-breakers are encouraged also by the prohibitive costs of monitoring long frontiers and the increase of land, sea and air traffic while public revenue, as percentage of the GDP, has been falling in all countries of the Horn. But most encouraging to them is the reluctance of the governments to combat smuggling, which often brings to their countries goods that their meagre foreign exchange resources can not afford, and which enables them to export secretly essential goods that fetch good values abroad but opinion will not approve of their exportation publicly. The smugglers are always selective regarding what they smuggle out of a country and what they bring into it: they either smuggle essential goods for which demand is large, or luxury

goods for which demand is limited but whose profit margins are large. This wide variety of difficult decisions that both smugglers and governments face relating to smuggling are vividly demonstrated by the illicit trade in Sudanese livestock.

3. ILLICIT TRAFFICKING IN SUDANESE LIVESTOCK

The animal wealth of Sudan was estimated in 1996 to consist of 24.7 million heads of cattle, 19.5 million sheep, 15.7 million goats, and 2.4 million camels. Wild animals also abound in the country together with 971 species of birds and a wide diversity of fish and reptiles. Some species like summering, addax, rhinoceros, leopards and Oryx gazelles are threatened with extinction. This wealth of tame and wild animals is second only to Ethiopia in Africa. The growth rate of the country's population of the domesticated animals cited above is 3.6%. This exceeds the rate of 2.6% at which the human population is growing. At 67 and 72 grams of fat and protein per person, daily consumption of these livestock ingredients exceeds the averages for developing countries, which are '58 and 65 grams, but are still below those of the industrial countries, which are 117 and 99 grams (1994/95 estimates). Clearly, Sudan's per capita supply of these ingredients exceeds that of all its neighbours, except Libya (in both items) and Egypt (in protein supply per person). Most of Sudan's neighbours are importers of Sudanese livestock, including Libya and Egypt, both of which have small animal wealth. This naturally raises questions about how Sudan can raise its population's nutrition standards without denying its poorer neighbours essential food, or losing the much-needed foreign exchange earned from richer countries.

These questions were raised at the highest levels in the 1970s when Sudan ranked above Egypt among the middle-income countries. A sharp rise in the prices of meat in 1969 sparked off demonstrations in Khartoum. When the President discovered that the cause was increased exportation of meat, and that the price of exported meat per kilogram was well below the domestic price, he banned exportation, which was clearly involving the smuggling of foreign exchange by under pricing exports. A year later (1970), the ban was lifted after the domestic prices fell, and escalating meat prices crusted again. Accordingly, during the period 1970-1978 export of sheep, cattle, goats and camels expanded by 500% against a growth rate of no more than 2.6% in the animal wealth. However,

paradoxically another crisis erupted in 1979 when exports registered a drop of 35% below their 1978 level. This generated a hot controversy over who is to blame for escalating prices.

Licensed traders and officials blamed the upsurge in domestic meat prices on smugglers and they estimated that illegal exports reached a level of 15,000 heads of cattle monthly. A senior official of the newly founded Livestock and Meat Marketing Corporation (LMMC) said that only 17% of exported cattle and 28% of exported sheep went through official channels. Nevertheless, while blaming smugglers for rising prices, traders and different officials vehemently blamed each other for the increase in smuggling. The focus of the attack was young LMMC, which was shown to have introduced a number of taxes, and fees including a 29% export tax, a 5% development tax, a \$2 service tax, a \$50 registration fee plus an annual \$25 renewal fee. The LMMC countered by explaining that the taxes and fees were required for providing the local component of a World Bank loan of \$25 million. The money was for constructing modern marketing centres in the main cattle-rearing regions, for providing freight trains from Khartoum to Port Sudan, for technical training and advice to its staff, and for constructing its headquarters.

The Director General of LMMC stated that the amount of animal protein a Sudanese eats is far too much; more than 50 percent of Sudanese eat meat at all three meals. Yet, at the time average meat consumption in Sudan was 30 kg per head. This seemed like a warning that the Sudanese should expect greater increases in meat prices, which will force them to cut their consumption to boost the country's exports. In 1979, the share of livestock exports (live animals, meat, and skins) was 6% of total exports; in 1996, it became 22%. However, current consumption per head is about 15 kg only.

In 1997, Sudanese exports to the Gulf States were threatened with a boycott by these states following Sudan's failure to condemn the Iraqi invasion of Kuwait. Nevertheless, the country's exports particularly of sheep and kids of goats, which are much demanded in the Gulf States, continued to grow from 196,455 and 1002 heads in 1989 to 1,187,735 and 57,175 heads in 1997, respectively. This had been achieved by intermediaries who smuggled the animals to Saudi Arabia by boats (*senabik*) or made them reach the Gulf States via Eritrea passing them as Eritrean animals. All parties concerned must have been fully aware (and approving) of this smuggling activity.

4. SMUGGLING FREE TRADE

Smugglers are universally regarded as criminals. The bases for this view are as follows:

- By smuggling essential goods out of the country, they raise costs of living to every one in the country of origin, especially the poor
- They usually import into the country luxuries, which only the rich afford; the most profitable imports are destructive (narcotics or arms)
- They rob the Treasury of much needed foreign exchange, which is either kept aboard or devoted to imported goods of low national priority
- They reduce the country's revenue from customs, which in 1997 contributed 42% of actual revenue
- They import commodities that compete with the products of protected infant industries, reducing their revenues and employment capacities

But these harmful effects must be set against some alleged benefits of trade, which comprise:

- Smuggling employ mostly persons with entrepreneurial (risk taking) qualities, who can be productively utilized if given the right job and pay
- Smuggling helps to correct the (black) market prices of products whose exportation is restricted in a manner that harms the producers
- Smuggling brings price in the countries of origin and destination to levels which can prevail if regional markets are integrated
- Competition of foreign superior goods to the products of nascent (and over-protected) infant industries forces them to improve quality

- Although smuggling discourages infant industries, it encourages the production of agricultural commodities in which the country has a clear comparative advantage.

These benefits, which are claimed to accrue from smuggling, may be seen as projecting it as an informal mode of beneficial trade liberalization. However, the type of trade liberalization smuggling promotes includes harmful traffic in opium and nearly extinct animals trophies, and it corrupts business and government. In addition, it focuses on what maximizes profits rather than on social welfare. Yet, it can be regarded as unsavoury prelude (or argument for) healthy trade liberalization, even when the smugglers are among its first victims.

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LAND-RELATED DISPUTES: THE CASE OF ZEGE PENINSULA, NORTHERN ETHIOPIA

*Rahel Mesfin**

1. INTRODUCTION

Dispute over land demarcation in Zege has its roots in the 1975 land distribution and the ensuing measures adopted to allocate land to families with large members (that expanded after the land distribution). The gist of land-related dispute in Zege pertains to the demarcation of landholding. People often demarcate their tract with sparsely planted trees and/or shrubs. Hooks and gigantic rock mass have also been used to mark the boundaries after the creation of fragmented individual land holding after the 1975 land reform. Despite such conditions, people strife over boarder violation. According to local sources, almost more than ninety per cent of the cases handled by the social justice committee (which serves as the local court) are land related disputes.

The dispute over land often involves dispute over gaining access to whatever are on the land but mainly, tees and coffee plants and of course additional space; these reasons seem to be the motives behind such conflicts. Hence, boundary related disputes also involve the right for cutting trees within one's boundary. People accuse each other of trespassing and cutting trees that fall on the boundary without the consent between all concerned parties, i.e., adjacent farmers.

Disputes such as the above-mentioned types seem to be managed in three ways: traditional, modern and a combination of the two. The traditional refers mainly to the elders' council, which involves respected elders (men) of the neighbourhood or the district. The modern means refer to the social justice committee established by the government at the KPA (i.e., *Kebele* Peasant Association) level to handle disputes of such nature except criminal and marital issues. However, the modern means such as the social and justice committee for settling dispute may not be entirely

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modern as it utilizes the traditional elders council in the mediation of conflict, which is also a legally recognized procedure.

This paper focuses on land issues in Zege peninsula. It closely scrutinizes tenure-related issues, the implication of such disputes, mechanisms of dispute settlement, and the role of different actors in the process.

2. BACKGROUND

Zege peninsula is located in West Gojjam zone, Bahir Dar Zuria *Woreda* (district administration) of the Amhara region. The peninsula extends into the southwest corner of Lake Tana and it is situated at an altitude ranging between 1778 to 1962 meters above sea level. Zege is located 595 km away from Addis Ababa and 32 km away from Bahir Dar or 15 km away when navigating on Lake Tana. The size of the peninsula is estimated to be between 1400 –to 1600 hectares and it is characterized by uneven topography/landscape. Lake Tana, which is estimated to cover an area of 3600 km² with 70 km in length, 60 km in width and 8.9 metres in depth, is the sole source of water for the peninsula (BoA 1994). According to the 1994 national census, the population of the KPAs is estimated to be 3,900 and 2,817 for Yiganda Mehal Zege and Ura Kidane Mihret, respectively. Out of the total population, 2,058 in the former and 1,559 in the latter are females (CSA 1995).

There are two *Kebele* (administrative division under the *Woreda*) Peasant Associations (PAs) and a small town, Afaf, in Zege. The people of the peninsula belong to the Amhara ethnic group and they are mostly followers of the Ethiopian Orthodox Church though there are some Muslim residents in Afaf town.

The climate of the area can be described as mild (*weyenadega*) weather although it has been noted that there has been a constant decline of rainfall and a rise of temperature. During the period from 1964 –to 1984, the average amount of rainfall has shown a decline from 1501 mm to 1029 mm, whilst the highest temperature has been 26.2° C and the lowest 10° C (BoA 1994). The vegetation of Zege is characterized by natural Savannah forest. The forest is highly populated with indigenous species of trees, bushes and other plants. Coffee is the major crop cultivated, on which the people rely. Aside from these, fruit trees, ginger and *Gesho* (*Rhamnus prinoides*) are also grown in the area (BoA 1994).

3. LAND HOLDING SYSTEM

There are two types of land holding: individual and joint. What is termed as individual holding is the land obtained either through the land distribution of the 1975, and/or allocated by the KPAs after the land distribution upon request for additional land and/or inherited from family members. The average land holding is estimated to be 0.75 ha. The highest land holding is again estimated to be 2.5 ha and lowest 0.5 ha (BoA 1994). The joint holding is also land obtained through the above indicated means but held by more than one individual. In such a system, two or more people are given a plot ranging from $\frac{1}{4}$ -3 *Kada* and, in rare cases, 4 *Kada* (1*Kada* = 5ha). Such kind of arrangement occurred after the land distribution, due to the shortage of land.

The land in Zege is mostly covered with trees and coffee plants. There are some open areas used for small-scale cultivation of maize and eucalyptus. These areas are regarded as common land. The people use small portion of the land to cultivate crops during the rainy season, usually for household consumption. Recently, these areas are used for grazing as some people have begun breeding sheep.

3.1 Traditional Land Rights

As in most parts of Ethiopia before the 1975 Proclamation no. 31 “Public Ownership of Rural Lands”, which transferred all land to state ownership, land in Zege was held by individuals through the *Rist* and *Gult* systems. The churches were also major stakeholders of the land in the peninsula.

3.2 The Land Reform of 1975

Due to the dissolution of customary rights and the state ownership of all land in the aftermath of the 1975 Proclamation, the *Rist* and *Gult* system ended. The landlords and the churches of Zege lost their holdings whilst households obtained use rights of land allocated in accordance with their family size. Attempts were made to allocate land to households that obtained less land despite their family size. Under such conditions, many families were assigned to jointly use certain portion of land with other households.

Before the discussion of the sources of disputer, it is vital to have an insight into the manner of land redistribution in 1975. The actual distribution of land in Zege was administered by the *Delday*, i.e., a

committee specially organized for such a purpose. The *Delday* are the members of the community that were responsible for the actual distribution of land after the 1975 Land Reform. In the *Zege*, the eligibility criteria set for those candidates were landless peasants and those regarded as honest and good members of their community. The elected committee of five comprised a chairperson (who was also the *Kebele* chairperson), a secretary and three members. The distribution of land in 1975 had been carried out according to family size. However, as the available land was not sufficient certain measures were adopted. As a result, households with 4 and less members received land in accordance to the size of the family. Whilst those with 5 and more members obtained land not coterminous with family size, i.e., households with 5 and more members received 1 *Kada* less. The set criteria of land distribution were not entirely observed. Shortage of land was the excuse given for the inconsistency and people were pledged more land in the supposedly second round land redistribution, which never materialized.

The other arrangement that served as means of addressing the land shortage was the “*Mote Keda*” arrangement. In such an arrangement, the land of deceased members of the community with no heirs was given to others that applied for land. Since the allotment was handed over by the PA committee, it is not difficult to anticipate the leeway for bias in selecting the individuals to be endowed. The land of those who left the peninsula for various reasons such as job elsewhere or education was also confiscated.

3.2 Land in Post-1991

After the fall of the *Derg* in 1991, the Ethiopian People's Revolutionary Democratic Front (EPRDF) also carried out land re-distribution (handled by the federal regional governments) in some areas. The justification for the land re-distribution was the unjust accumulation of lands by some individuals or bureaucrats primarily officials of agricultural cooperatives of the past regime. The Amhara Region was one of the few regions that administered land re-distribution. As part of *Bhair Dar Zuria Woreda*, *Zege* was also initially included in the plan. However, land re-distribution was not conducted in the anticipated time. According to some *Woreda* and KPA officials, *Zege* posed a problem to undertake land redistribution, as it is entirely coffee cultivating area with varying land tenure arrangement.

Hence, it was postulated that grabbing the excess land with the coffee plants would create instability. The re-distribution has been postponed under the recommendation of the *Woreda* to the regional council to further investigate the situation. Currently, there is no clearly defined mechanism of land reallocation especially for families growing in size and newly formed households.

4. SOURCE OF DISPUTES

The underlying causes of the present disputes over natural resources witnessed in Zege pertain to the issue of tenure and reflect on the issue of access to resources. The current turmoil is largely instigated by the Land Reform of 1975, the manner it was handled and consequently the tenure insecurity it instituted ever since. As the land reform introduced new property regime, people were given usufruct rights over land and the right to transfer by sale, lease, mortgage, gift or inheritance was not allowed (Dessealegn 1994). Further, in the absence of proper and clear land distribution mechanism for the re-allocation of land to households with increasing family size (since 1975), people seem to be forced to use other mechanisms of gaining access to coffee plants, trees and land. The source of the bickering over land holdings and coffee plants and trees can be summarized as follows:

- i. The shortage of land due to the increasing population and the absence of mechanism for addressing the issue of landlessness.
- ii. Absence, inconsistency, distortion, and manipulation of the means of allocating land to secure more land.
- iii. The land holding system or arrangement whereby the creation of fragmented holdings, which seemed to have entailed increased incidents of boundary based disputes. Likewise, the establishment of joint holding has resulted in more confusion and problems in sharing responsibilities of harvesting, which curtailed people from investing on their land and thus to indulge in frequent disputes over boundaries.
- iv. The issue of abuse of power, where the endowed attempt to grab land from the rightful users

- v. Failure to accurately establish the boundary of land especially in the allocation of land.
- vi. Gaining access to the uninhabited land (as in the case of disputes at the community level).

5. NATURAL RESOURCES-RELATED DISPUTES

5.1 Land Boundary Disputes

- i) Tampering with the boarder of the coffee plot is one of the dominant causes of contention in Zege. As mentioned earlier, land boundaries are demarcated by sparsely planted trees, shrubs and at times with scantily hooked wooden pegs and big stones. Some tracts may not be properly bounded and can easily be tampered with. Consequently, people modify the boarder to gradually claim the newly planted seedlings or the coffee plant to be harvested. Boundary related disputes escalate during the coffee picking and planting seasons. As it will be presented below, such disputes may not be entirely attributed to failure to demarcate the land properly, but also to failure to clearly show boundary during land allotment. The boundary disputes occur both in joint and in individual holdings. Disputes also occur among family members especially in situations where both have jointly held tract.
- ii) Failure to accurately establish the boundary of land, especially in the allocation of land in the “*Mote Keda*” system, is one of the main reasons that cause disputes. In such cases, the oral accounts of the transfer of someone’s land without showing the boundary properly have been practised by the land allocating committee in the KPA. In some instances, *Deldays* may also fail to show the exact boundary when splitting the land hence allocated land by estimation: as the people describe it “*ayetsh sechew*”, meaning visual estimation.
- iii) The absence of a properly defined manner of land distribution and allocation has created inconsistent system of land allocation. The *Mote Keda* system in this regard has paved the way for obscure ways of obtaining land. Such incidents instigated some bickering among community members. There had also been incidents of

obscure means of obtaining land mostly by the then *Kebele* officials who abused power. Victims who could not receive impartial judgment appealed to the *Woreda* court and the litigation is pending.

- iv) At community level, the two KPAs are also disputing over an inhabited adjacent area. The disputable area is around Selassie church. The church is built on a hill surrounded by uninhabited area. Both KPAs are claiming access to that land. Both cite historical evidence to support their claims. There was a recent clash when people from both KPA tried to cut trees from the uninhabited area. As the situation was beyond the capacity of the social justice committee, the *Woreda* court was involved. The *Woreda* court tried to resolve the case by appointing 20 elders (10 from each KPA) to mediate the dispute and demarcate the boundary. Some people explained all this conflict is just a cover up; the main reason is to ensure the availability of land for any possible land redistribution in the future.

5.2 Tree Cutting Disputes

The boundary-instigated disputes also pertain to the issue of access to trees. As in most places, trees are cut with the permission of the KPA. Permissions are given for cutting aged trees, which pose the danger of toppling during strong wind and/or heavy rain and for construction of house of the owner of the tree. Moreover, at times of weddings and other big feasts people can get permission to cut the branches of their trees, though they end up cutting their trees. However, as some informants disclosed, the practice is different, as it seems everybody has obtained permission to cut trees. Although most trees are used as landmarks and for shading, they can be subjected to cutting.

Fuel wood selling has become intense since 1970 due to the hailstorm that resulted in the destruction of coffee trees and in the migration of most of the people to the neighbouring areas. Despite the viability of the trees to the coffee plants for shading, people still resort to unprecedented use of these resources due to the need to earn complementary income. The shortage of land due to population growth and the associated tenure issues were identified by the people as the major factors responsible for the decline in agricultural production. Concomitantly, such conditions result

in an irregular and insecure income and thus in a constant struggle for survival. Such conditions force households to earn income from off-farm activities namely, trade and sale of fuel wood. In this regard, some youngsters because of landlessness purchase standing trees from elderly members of the community who need the cash for living. The trees will soon be transformed to fuel wood destined to the market in Bahir Dar.

Most of the disputes regarding tree cutting occur when boundary-marking trees are cut. In situations where the trees are boundary markers, disputes arise due to claim over the trees (assuming they fall in their boundary) or because of cutting such trees without notifying the adjacent landholder. Such disputes are treated in the same manner as the above mentioned land boundary related matters. The other disputes related to tree cutting occur when cut trees fall and destroy a neighbour's coffee plants. In such instances, the tree maybe confiscated by the victim, or the offender can be fined to pay compensation for the coffee trees destroyed.

6. DISPUTE RESOLUTION MECHANISMS

6.1 Traditional Mechanisms

Shimgelina Menesat or having a case reviewed through elders' council/assembly has been one of the traditional dispute resolving mechanisms. The elders or the *Shimagelewoch*, may not necessarily be elders but men who the contenders choose to review the case. In selecting the elders, the disputants prefer to choose individuals with whom they have good relation in the hope that the person can influence, speak for the disputant and help the assembly consider the situation of the disputant in reaching a decision.

The elders in *Shimgelina* mediate and negotiate in a variety of disputes. In negotiation, the decision making process does not call for the involvement of an authoritative third party. Rather the disputants play a significant role in reaching a joint decision. Yet, there is also the possibility that the mediator can have an important role in bringing the disputants to reach a joint decision. In general, the role of the mediator in negotiations is limited to facilitation of the process leading to joint decision. Describing the process of negotiation, Gulliver (1979, 5) states the following: "It involves the exchange of information: alleged facts and proffered interpretation of them, argument, appeals to rules and values threat,

promise, demand, often, counter offer and so no. The flow of information permits a continuous process of learning by each party about the requirement, preferences, expectation, perceptions, attitude, feeling, strength and weakness of both the opponent and himself.”

The elders in *Shimgelina*, though they pass judgment, they often attempt to negotiate and reconcile the disputants by asking and convincing them to make compromises. Disputants usually defend themselves; yet, they can also bring someone to speak for them or to present the case eloquently.

6.2 The Social Justice Committee

This committee functions as a local court at the KPA level. The committee is recognized by the government and has links with the *Woreda* courts. There are 5 members in the committee: chairperson, secretary and three members. Ensuing their election, the members were given 15 days training at the Farmers Training Institute to acquaint them with the legal procedures and civil code of Ethiopia. The committee convenes 6 times per month on some of the locally observed saints’ days. The committee commences by reviewing the application written by the plaintiff and issues a letter for the defendant to appear. The defendant will also submit written reply. After hearing the cases, the committee usually persuades the disputants to get to *Shimgelina* as it relieves them of many responsibilities and helps to reconcile the dispute easily.

The social and justice committee is governed by the application of the legal tools; thus, disputes are solved through adjudication. The distinctive role of the third party is the integral element of the decision making process in adjudication. It involves “unilateral decision making” by the authoritative third party, which can be an individual or a group of people. The role of the third party is usually approved or sanctioned by the community at large. Thus, the authority is accepted.

As mentioned earlier, the training given to the members acquaint them with the relevant laws and conflict resolution procedures. However, the cultural tools or resources are also given due consideration as this committee also advises disputants to initially solve their case through traditional means and it endorses the decision reached through *Shimgelina*. However, in situations where traditional means fail to resolve the dispute, the committee will pass the decision. The role of the *Deldays* (in cases pertaining to land related issues) and the people's testimonies are

taken into consideration in reaching the decision. The committee's decision is read in the presence of the disputants. Though it is very rare, the discontented party can appeal to the *Woreda* court.

Members of the *Delday* committee assume an important place in the settlement of boundary disputes. As the *Deldays* undertook the land distribution, it is assumed that they know or recall how the boundary was demarcated and hence show where the "actual" boundary of the disputed land falls. It is also believed that they have a good expertise to demarcate the land.

In this process, the disputing parties are expected to pay the *Deladys* nominal fee of 3-5 Birr in acknowledgement of their effort and time to settle the dispute. Not only this they can also prepare *Talla* (traditional beer) and some *Kollo* or *Nefro* (boiled cereal such as corn, wheat or chick pea). The men usually go to a local bar after they finish the work. The members of the elders' council also enjoy such privileges when they engage in dispute settlement process. Such practices are considered as amounting to bribery. In fact, they said people start inviting the *Deldays* and elders to the local bars in Afaf to discuss the matter or to win the heart the *Deldays*. The *Deldays* tend to postpone or cancel appointments to show their importance and they are constantly appealed by the disputing parties to measure the land. Such action of the *Deldays* is considered a message to the disputants that they need to do more than deliver the court order to them.

6.3 The Woreda Court

This court handles various civil, criminal and social cases. Though almost all land related disputes are handled by the social justice committee, appeals on the decision of the committee are presented to this court. However, serious disputes between the communities are handled by the *Woreda* court (as mentioned earlier).

7. CONCLUDING REMARKS

One of the crucial issues that need to be addressed in the discussion of disputes over natural resources is the tenure system. Land tenure in Ethiopia is a very important issue as land is the base of all other resources. Such truth or fact is depicted in the above-presented cases of Zege. In situations where there is tenure insecurity and the people's rights to use

the land is not guaranteed, abuse of natural resources follows. Moreover, as people do not have clear means of accessing land (particularly when there is shortage of land), they use opportunities to maximize their interest - in this case assuming portions of the neighbouring land often with coffee plants and trees or of the uninhabited land. The current insecurity of the tenure system and perhaps the ill-defined land allocation system affect the initiative of the people to invest on their land and protect their tress and land as desired. People will want to make quick money by selling the trees or fuel wood to solve today's problems and meet pressing needs.

The above discussion of dispute resolution mechanisms displays their advantages and disadvantages. *Shimgelina* (elders council or process of settling dispute) is one of the most renowned methods of solving conflict in Ethiopia. This traditional means of resolving conflict through council of elders focuses on negotiation. Elders propagate peaceful coexistence, and the cultural values of the people (traditional and religious means) are used to resolve the case.

The land reform introduced new land tenure arrangement in place of the traditional system. Land related issues are highly politicised with far-reaching implications on the government policies and administration. In situations where the decision of the elders' council will not ameliorate the underlying conditions and causes, their decision can be a mere trail. However, elders' council can mitigate the dispute by allowing the disputants to abstain from violent means. It brings into the scene the social fabrics and values of respect and maintains a face saving act.

Elders also emphasize compromise, which again can create discontent and achieve only superficial negotiation. It also lacks the power that can be vital for solving the problem. It advises the disputants and presents the alternatives for solving the problem. Yet, if one becomes adamant (despite evidences of wrong doing), the council has no power to implement the measures required. The elders' council in this case is subordinate to the government's instituted body. *Shimgelina*, however, can also solve disputes in a relatively shorter period. It, hence, saves time and cost. It utilizes informal and integral resources such as religious beliefs and cultural norms and values, which help the disputants to abide by the expectation of the society. Further, the lack of punitive measures again encourages the people to accept their mistakes, compromise and yield to a

lasting solution. On the other hand, it can also encourage them to commit the same mistake after sometime.

From these observations and interviews, it can be said that the *Deldays* still play an important role in the life of the people. Though the *Deldays* claim they remember the boundaries of each person and refer to the record book, which has the size of the land holdings of the people during the 1975 land distribution, their judgment can be open to bias. Unless the disputants appeal to the *Woreda* court in Bahir Dar, the decisions of the *Deldays* normally pass unchallenged by the losing party. Those that have attempted to appeal to the *Woreda* court have been discouraged as the court usually refers them back to the social and justice committee which handles such cases at the KPA level. Others are discouraged by the time it takes to resolve the case.

One of the crucial points emerging from this case is the relevance of the dispute resolution mechanisms. Disputes can be resolved in a range of ways, yet it seems vital that the dispute resolving body be free from political affiliation. However, these bodies need to be endowed with checked power to have their decisions instituted. In the absence of such endowment and where the power crucial for solving the dispute rests elsewhere, the resolution can be superficial. In this case, the utilization of both the traditional and the modern means of addressing disputes can minimize the limitation of each means and reflect on the different dimensions of the disputes.

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WISDOM AND SKILLS: HOW TRADITIONAL FARMERS AND PASTORALISTS RESPOND TO HAZARDS IN THE SAHEL

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1. INTRODUCTION

The theme of human adaptation and coping strategies adopted by individuals and social groups, in the arid semi arid lands, are increasingly becoming important and topical, as environmental awareness is gathering momentum. My interest in these issues goes back to the early 1970s (Ibrahim and Pool 1982), and it has been further stimulated following my participation in two workshops on the problem of desertification, organized by the UNDP and the Desertification Unit of the High Council for Environment and Natural Resources. In these workshops, I contributed papers discussing the subject of institutional frameworks for the National Plan of Action related to the implementation of the United Nations Convention to Combat Desertification (Ibrahim 1998; Ibrahim, Ibrahim and Hawati 1998).

This paper is informed by discussions, debates and proceedings of the two workshops. The United Nations Convention to Combat Desertification (UNCCD) has given sufficient attention to the issue of indigenous knowledge and traditional skills and has incorporated these as important ingredients in the mechanism for redressing and curbing the negative impacts of desertification. The focus of this paper is, therefore, on local skills, knowledge and patterns of human adaptation to the harsh environmental realities in the Sahel, taking western Sudan as an example.

The paper starts by highlighting some of the environmental features in the Sahel and point out the fragile realities, crises of grave dimensions. The paper points out that despite these harsh realities, people living in the Sahel region are making decisions and taking risks in their daily life and

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in due course they accumulated skills that demand serious attention. The UNCCD acknowledges these skills and recommends research leading to thorough understanding of wisdoms and skills deeply rooted in culture and to incorporate these skills and wisdom among the different tools and techniques to be used in the struggle against desertification and related symptoms of natural, social and human degradation.

2. DESERTIFICATION, ARID LANDS AND THE SAHEL

The Sahel is part of tropical Africa represented by the ecological zone of the northern Savannah. It is mainly characterized by an average annual rainfall that ranges between 100mm to 600 mm. This pattern and amount of rainfall allows the growth of short grass and scattered acacia trees, which increase in density from north to south. The region is prone to periodic and seasonal fluctuations of rainfall. Droughts occur when precipitation becomes significantly below normal recorded levels, causing serious hydrological influences that adversely affect land resource production systems (UN 1992).

During the 20th century, two very important incidents of drought hit the region, resulting in particularly devastating effects upon the livelihood of pastoral and farming communities, who make the majority of population in countries such as Mauritania, Senegal, Mali, Burkina Faso, Niger, Chad, Sudan, Ethiopia and Somalia.

The drought cycle of 1969-1974 caused around 200,000 people to lose their life and millions of livestock herds to perish (Ibrahim, Ibrahim and Hawati 1998). During the period 1982-1985, another cycle of severe drought hit the region leading to greater damage in human and animal life. In northern Darfur, for instance, this drought has destroyed 50% of camels, 25% of goats, 40% of sheep, and between 50 to 90% of cattle herds. Other tragic consequences associated with drought such as famine and migration caused the uprooting and dispersal of whole communities.

The direct and indirect socio-political and economic costs and impacts of these disasters upon affected communities cannot be fully accounted for. One evident consequence of greater interest to this paper is the growing awareness and deeper attention given to environmental studies during the last two decades. The scientific community started for the first time to be more concerned with sustainable development. United Nations agencies

represented by UNDP and UNEP spearheaded active interest in sustainable development, particularly in the more fragile ecosystems.

The Sahel region received greater attention. In 1973, the United Nations established the United Nations Sahel Office (UNSO) to help the Sahel countries most affected by drought. Other national and international development organizations such as the Norwegian Agency for International Development (NORAD), the British Overseas Development Administration (ODA), the World Bank and many other bilateral and multilateral organizations followed the example of UN, to intervene with development effort into the region.

As the Sudan is among the largest countries mostly affected by drought and desertification, the Sudan's Desert Encroachment Control and Rehabilitation Programme (DECARP) was initiated in 1976. DECARP is an example of international cooperation to combat desertification and mitigate the impacts of droughts. In 1977, The United Nations Conference on Desertification was held in Nairobi with the intention of developing mechanisms for co-operation in the efforts against desertification. The continuation of drought, in many parts of Africa, and other regions, and outbreaks of famine and severe deficits in food throughout the 1980s and early 1990s made the issue of desertification an important agenda in the Earth Summit Conference, in Rio de Janeiro in 1992, where a separate chapter on desertification was opened on the insistence of African delegations. The Rio conference authorized UN to prepare and formulate the International Convention to Combat Desertification (UN 1992).

A great deal of information had been collected and a growing awareness about the nature of physical and social problems in drylands had gained momentum, during the period following the repeated natural disasters of the mid 1970s and 1980s. The close relationships between desertification, drought, and social behaviour of people and government policies had been recognized. From the efforts of scientists and researchers working in the field, it has been estimated that 20% of lands covering the surface of the earth are arid lands, where sustained productive capacity is uncertain (Ibrahim 1998). At the global level, scientist have established some links between droughts and changing patterns of rainfall, on the one hand and the phenomenon of the Green House Effect and Global Warming, on the other.

Africa is among the most affected regions in the world, with droughts periodically occurring along all of the Sahel region, and extending beyond to reach other semi-arid lands to the south of the Savannah (Ibrahim 1998). In fact, more than 66% of the total area of Africa is either already desert or prone to desertification.

Famine, which is often associated with severe drought, threatens human and animal life in the region. Drought alone need not lead to desertification or famine. The human factor is increasingly assuming importance. Patterns of land use and management of natural resources are significant factors in the process of environmental degradation. It has been stimulated, that in 1950, the total size of animal population in Africa was 295 million heads, while the same number of humans was 219 million people. In 1983 however, human population has more than doubled to reach 513 million people, while animal population increased to 572 million heads (Suleiman 1990). In Sudan the number of livestock between 1960 and 1994 increased from 2 to 5 million for camels, from 9 million to 30 million for cattle, from 9 million to 40 million for sheep and from 7 million to 34 million for goats (SSEC 1996). Increase in the number of human and animal population means more pressure upon natural resources.

It is reasonable therefore to establish a link between human behaviour, land degradation, drought and desertification. While the number of animal and human population increased, pressure on natural resources lead to soil degradation and failure to sustain crop production, which is associated with repeated cycles of famine in the Sahel.

Scientists reached solid conclusions that desertification processes in the Sahel are caused by complex interactions among physical, biological, political, social, cultural and economic factors. Desertification is being defined as the process of land degradation in arid and dry sub humid areas resulting from various factors including climatic variations and human activities (UN 1992).

Desertification and drought affect sustainable development through their interrelationship with important social phenomena such as poverty, poor health and nutrition together with food insecurity and the associated problems of population mobility and migration leading to displacement of

persons and whole communities. Such social disorder can lead to the collapse of political systems and cause revolutions and civil wars.

There is a close link between desertification and drought but this link does not amount to a cause and effect relationship. Drought may facilitate the processes of desertification, but scientists have identified four interrelated mechanisms for desertification: land degradation, depletion of plant cover, soil erosion, and the consequent socio-economic impacts (Ibrahim 1998).

Therefore, the Convention to Combat Desertification aimed at restoring sustainable development in arid lands, particularly in the Sahel, by adopting a number of techniques and programmes of action that included principles such as the need for popular participation, in which the efforts of the local people including, elders, leaders, women and local officials are mobilized (UN 1992). The convention recommends grass roots democracy, bottom up approach to planning and land reform, which aim at empowering the local people. The convention calls for capacity building, training of participants in different methods and techniques, but most importantly, it acknowledges the value of traditional skills, local knowledge and wisdom and encouraged scientists to take these seriously in their effort to ensure a sustainable development. In the following section of this paper, we shall explore some of these traditional practices and skills, which enabled pastoralists and farmers to cope with the harsh environmental realities in the Sahel, by reference to examples from Darfur region in western Sudan.

3. TRADITIONAL COPING STRATEGIES

There are two earlier droughts other than the ones mentioned earlier. The first covered the period from 1910 to 1914, the second from 1940 to 1943 (Shegaf 1997). These different episodes of drought are often associated with crop failures, food shortages, and depletion and scarcity of pastures. During these years, the water tables sinks low into the wells. Frequently the changing pattern of rainfall is associated with invasions of locust and birds and outbreaks of diseases and epidemics.

To all these calamities, inhabitants respond, in the majority of situations, with predictable actions that may seem astonishing to outsiders. These responses are based on a wider range of information and knowledge, which provides pastoralists and traditional farmers with skills that enable

them to design coping mechanisms and survival strategies. These mechanisms and strategies can be classified into five categories: a) strategies for sustaining and increasing productivity of natural resources; b) strategies for improving consumption by compensation and substitution; c) strategies for adaptation to changing circumstances; d) survival strategies; and f) institutions (Mohamed, Osman, and Mohamed 1998).

3.1 Sustainability of Production

To sustain production farmers adopt the following strategies: a) dry planting of seeds; b) ownership and cultivation of different plots of land in different direction; c) harvesting of rainwater; d) selection of early maturing and drought resistant seed varieties; e) inter-cropping of different crops, for example, groundnuts with sorghum; f) early cleaning of parasitic herbs; and g) adopting a system of crop rotation (see Muneer, this volume).

Pastoralists adopt strategies that are more flexible, by moving from one place to the other, in search of water and pasture. They select animal breeds more adaptable to the environment. In their strategies, both farmers and pastoralist understand natural signals, which provide them with early warning systems.

They read from the behaviour of animals such as rats and ants, which sometimes tend to be particularly energetic anticipation of possible changes in weather. Their observation and knowledge of the stars help them to predict the weather. Thus, they have their own mechanisms of early warning systems.

3.2 Consumption by Compensation and Substitution

These strategies include storage methods, traditional food preservation techniques, such as sun drying and fermentation of food and beverage drinks, and the exploitation of forestry products such as wild fruits and different types of gums, in addition to grains collected from wild grass. Such famine foods are abundant and of a greater diversity in Darfur. They include wild fruits such as Mekheit (*Boscia senegalensis*) Tabeldi (*Adansonia digitata*) Lalob (*Balanites aegyptiaca*) and leaves. There are, in addition, dozens of other wild fruits such Kordala, Nabag, Giddaim and other root foods such as Agash, Fayo and Settaib. Grains from wild

grasses include Difra, Keralb, Haskaneit, Derraisa, and wild rice. This biodiversity is an integral part of people's survival. The different cycles of famines could have had effects that are more devastating in the absence of local knowledge about edible wild plants.

Pastoralists supplement their food with the same food elements in case they ran out of staple grains (sorghum and millet). Other strategies of coping with scarcity include the sale of animals, particularly goats and sheep. Other strategies include migration to urban and agricultural schemes for wage labour and sale of milk and firewood to the nearest urban and semi urban centres.

3.3 Adaptation to Changing Circumstances

These may include major decisions such as migration and resettlement in new places. During the drought of 1970s and mid 1980s, massive internal migration from north to south, within western Sudan, and west to east to the Nile has taken place (see Muneer, this volume). It also includes mass movement of people from rural to urban and immigrations from Chad and the Sahel countries eastward into the Sudan and from the Ethiopian plateau into Eastern Sudan.

3.4 Survival Strategies

Under the most difficult and extreme circumstances, survival strategies may include theft, prostitution, and armed robbery. Cattle raiding across tribal borders and the reprisal attacks may erupt into complete breakdown of law and order, and the recurring incidents of ethnic conflicts can be attributed, to some extent, to this type of strategies. Whatever adaptation strategy might be chosen, it is important to consider the institutional and organizational framework within which it takes place. These institutions are important factors, in any coping strategy, for any social behaviour needs organization and direction.

3.5 Traditional Institutions

Farming and pastoral communities operate within the framework of specific institutions and organizational structures. These ensure order, continuity and preservation of wisdom and skills and their transfer from one generation to the other. Elders and chiefs are the main custodians of tradition. In addition, there are other institutions, whose relevance and

strength differ from one particular ethnic group to the other. Generally, one can point to the following institutions in Western Sudan:

- 1- *Dimlig*: This is someone who understands and interprets tribal customs, rules and tribal genealogies.
- 2- *Ageed*: He leads the tribal community during periods of crisis such as war, outbreak of fires, and invasion of birds and locusts.
- 3- *Faki*: He is the spiritual leader of the community who occasionally perform traditional medical roles. The *faki* is also instrumental in crop protection against birds and together with *kujur* perform rituals of rainmaking.
- 4- *Dambari*: His job is to banish locust swarms and protect crops.
- 5- *Muraqi*: This is a herbal doctor
- 6- *Hakama* and *Haddai*: The *Hakama*'s role is exclusively women's, while the *Haddai*'s is men's. Both spread tribal propaganda and enforce tribal solidarity.

4. CONCLUSION

Traditional skills and knowledge embodied in the cultural heritage of pastoral and farming communities in the Sahel were developed in response to the actual needs of these communities. They represent accumulated experiences that were codified in the form of customs, institutions and patterns of behaviour. While acknowledging that not all of these practices are always useful, indeed some of them are harmful, scientists working in arid-lands and humanity in general stand to gain from patient research that may lead to the decoding and scientific explanation of these traditional practices. In this sense, the paper fully endorses recommendations made in sub-sections (a) and (b) in article (19) of the Convention on Desertification (UN 1992), which reads as follows:

The parties recognize the significance of capacity building - that is to say, institution building, training and development of relevant local and national capacities - in efforts to combat desertification and mitigate the effects of drought. They shall promote as appropriate capacity building the following: a) through full participation at all levels of local people, particularly at the local level, especially women and youth, with the cooperation of non-governmental

organizations (NGOs); and b) by fostering the use and dissemination of the knowledge, know-how and practices of local people in technical cooperation programmes, wherever possible.

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DRYLAND FARMING IN SUDAN: LOW INPUTS AND LOW SUSTAINABILITY

*Siddg El Tayeb Muneer**

1. INTRODUCTION

Dry farming is defined as crop production in arid and semi-arid areas with annual rainfall less than 250 mm. It is practised when the soil moisture is the most determining and limiting factor of production. Thus, dry farming systems depend mainly on agricultural practices that conserve soil moisture and enable efficient utilization of the limited amount of rainfall available. The following are the common agricultural practices used in dry farming system. First, the adoption of crop rotation, whereby cultivation is alternated with fallow period, i.e., the land is cultivated one year and left fallow the next year. This practice is used in areas where the rainfall is very low. The idea of leaving the land fallow for one year is to store some of the rainfall water from the fallow year for the cropping year. It has been argued that ten per cent of the soil moisture during the fallow period could be saved for the next year if the summer temperature is moderate. Second, plant populations per unit area of land are reduced. This is done either by reducing the number of plants per hole or by increasing the spacing between the plants. This is to decrease competition for water by the plants. Third, reduction of water losses through proper weeding and stubble mulching, which minimizes water run off and evaporation from the soil and increases water penetration in the soil. Fourth, avoidance of deep ploughing and sub-soiling, which increase water loss through evaporation. Fifth, quick maturing varieties of crops are planted. Sixth, careful observation of sowing date, which should be immediately after enough rainfall and after the soil gets enough moisture for seed germination. Seventh, the field is ridged so that rainfall accumulates inside the furrows and then crops will be planted on these ridges. Finally, use of water harvesting techniques (e.g., construction of small dams and terraces) to benefit from the rainfall water that would otherwise run off.

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Due to the repeated droughts since 1984, dry farming is practised, in addition to northern Sudan, in many areas of western and eastern Sudan along the seasonal streams and *khors*. This paper is based on the findings of several studies that were conducted in western and northern Sudan to examine the features and socio-economic and environmental impacts of dry farming in Sudan. Furthermore, the paper will shed light on the coping strategies used by people involved in dry farming.

2. METHODOLOGY

Two separate studies were conducted in North Kordofan State and Nile River State to describe the dry farming system used in these areas to determine its main constraints, and to suggest some interventions that can lead to its development (Muneer 1997, 1998). The study in North Kordofan State was conducted in Bara and El Rahad. A random sample of 508 farmers was used. The study in Nile River was conducted in Ed-Damer and Wadi El Hawad in Kaboushia area and a random sample of 564 farmers was used. In both studies, a stratified random sampling, to represent male- and female-headed households, was used. The data was collected through personal interviews by a gender-balanced team of data collectors. In addition to the farmers' survey, Participatory Learning and Action (PLA) sessions were held in both areas to get more insight into and understanding of the living conditions and coping strategies of the local people.

3. CHARACTERISTICS OF DRY FARMING IN SUDAN

In both areas, North Kordofan and Nile River, agriculture is the main occupation and economic activity. However, the results of both studies showed that no modern agricultural inputs (e.g., improved seeds, pesticides, mechanical power, etc.) were used. Furthermore, none of the interviewed farmers or those who attended the PLA sessions had received any type of extension service; there was no agricultural extension service in both areas. The main crops that are grown in North Kordofan are sorghum, millet, sesame, groundnut, *kerkadi* and beans. On the other hand, in Nile River only sorghum is produced. The cultivated varieties in both areas are local long maturing varieties.

Out of the agricultural practices that are recommended for maximum utilization of the limited amount of rainfall in the dry farming areas, only avoidance of ploughing is adopted in Sudan. On the other hand,

agricultural rotation with fallow period (i.e., shifting cultivation) is practised for a different purpose and in a different manner. In shifting cultivation the land is usually cropped for up to five successive years. During that time, the soil fertility decreases and acacias grow. When conditions are no longer suitable for crop production, the land is abandoned and further areas are cleared. Abandoned land is usually left fallow for several years.

The lack of use of modern inputs, especially improved seeds, lack of short maturing and drought resistant varieties and improper agricultural practices have resulted in a very low productivity per unit of land and total production for all crops. The female-headed households were found to cultivate smaller area compared to the male-headed households and consequently they obtained less total production of all crops.

Animal production usually represents an important component of the dry farming systems. In Sudan, this is not true; as indicated in Table (1) the respondents possess small numbers of livestock and many households own certain types of livestock and not the other. About 92%, 71%, 51%, 30%, 26%, and 9% of the households own goats, donkeys, sheep, poultry, camels and cattle, respectively. The small population of livestock in the dry farming areas could be attributed to two factors. First, a considerable portion of the livestock in these areas was lost during the droughts of the 1980s and early 1990s. Second, selling of livestock is one of the common strategies that people use to cope with poverty. However, in Nile River State people possess more livestock than in North Kordofan State. This may be because while in North Kordofan State people had lost most of their livestock due to the drought, in Nile River State the animals are kept near the Nile during the dry season. Moreover, male-headed households in both states possess more animals than female-headed households do.

Table 1. Livestock ownership

Type of livestock	River Nile State		North Kordofan State	
	Male-headed households	Female-headed households	Male-headed households	Female-headed households
Goats	6	4	4	3
Sheep	13	3	5	3
Cattle	2	0	1	0
Camels	3	0	N.A	N.A
Donkeys	2	2	1	0
Poultry	3	5	4	2

SOURCE: Muneer 1997, 1998.

All of the above mentioned features of dry farming in Sudan have resulted in a very low contribution of agriculture to the households' annual income particularly in Nile River State (Table 2). Moreover, the low agricultural income in the dry farming areas, which have very limited income generation opportunities other than agriculture, has resulted in widespread poverty especially among female-headed households. The results of the two studies have revealed that according to national and international standards people in the two areas, who depend on dry farming for their livelihood, are living in absolute poverty (i.e., their income is below the poverty line). Furthermore, it has been found that there is a significant variation between male and female-headed households regarding the value of their annual income as well as its sources (Table 2). The female-headed households earn about 45 per cent of the male-headed households' annual income, and a significantly high proportion of it is earned from non-agricultural activities.

Table 2. Household annual income by source

Income	River Nile State		North Kordofan State	
	Male-headed household	Female-headed household	Male-headed household	Female-headed household
Average total income (in Ls.)	1,378,695	583,289	1,415,546	656,487
Percentage of agricultural income	33.8	15.9	59	37
Percentage of non-agricultural income	66.2	84.1	41	63

SOURCE: Muneer 1997, 1998

On the other hand, it was found that more than three quarters of the households' annual income is spent on food items (Table 3). This high percentage of expenditure on food compared to expenditure on other needs reflects an extreme level of poverty. People living just at the poverty line spend about one third of their income on food and the other two thirds on other needs such as clothing and shelter. People depending on dry farming in Sudan are not only unable to spend on items other than food, but also unable to buy their adequate food requirements. For example, on average, each household consumes about 30 kg of meat per year and spends LS 18,287 on fruits, and most of its expenditure on food is used to buy grains (Table 4). The negative implication of consuming sub-optimum amounts of such essential food items on the local people's health and nutritional status is not very difficult to observe (e.g., night blindness).

Table 3. Households' annual expenditure in dry farming areas in Nile River and North Kordofan States

Expenditure	Nile River State		North Kordofan States	
	Male-headed households	Female-headed households	Male-headed households	Female-headed households
Total expenditure	1,737,762	946,771	1,289,390	973,493
% of food expenditure	73.7	79.5	75	79
% of energy expenditure	3.9	4.3	2	1
% of clothes expenditure	6.5	3.9	6	6
% of health expenditure	4.0	2.4	3	3
% of education expenditure	2.2	2.3	2	2
% of other expenditures	10.2	7.6	10	8
Total	100	100	100	100

SOURCE: Muneer 1997, 1998

Table 4. Households' annual expenditure on different food items in the dry farming areas in Sudan

Food item	Percentage of total food expenditure
Grains	41.5
Beans	3.7
Sugar, tea and coffee	28.8
Fruits	1.5
Vegetables	5.1
Eggs	0.2
Oil	9.0
Meat	9.9
Total	100.0

SOURCE: Muneer 1997, 1998.

4. HUMAN ADAPTATIONS

Compared to many animal species humans have many physical limitations; yet, they are the dominant life form on Earth (Hebding and Glick 1987). This is possible because of the common systems of beliefs, values, goals, behavioural standards and technological knowledge stored in their culture. By means of culture, humans can adapt to the demands of most physical environments and in some cases, they can even change the environment to suit their own interests and desires. More specifically culture enables humans to:

- Protect themselves from the environmental stresses (i.e., use of different types of shelter, clothing etc.).
- Modify and exploit the environment (build dams and canals for irrigation etc.).
- Cope with extreme environments and survive in all climates.
- Live as social or group creatures and satisfy many of their social and physical needs that require collective or group action.

Drylands in general and Sudan in particular are characterised by limited resources and poor infrastructure. Thus, the people pursue different economic activities to cope with such environment (see Ibrahim, this volume).

The main economic activity is shifting cultivation agriculture, which is the appropriate dryland farming system under Sudan's conditions. It is characterized by land abundance, low population density, simple technology, arid climate, short growing season, sandy soils and high production risk (FAO 1994). Land is usually cleared of acacias and cropped for up to five years. During that time, the soil fertility decreases and the acacia grows again. When conditions are no longer suitable for crop production, the land is abandoned and other areas are cleared. Abandoned land returns to the production of gum Arabic and has traditionally been left fallow for up to 20 years. The main features of this farming system are the low cost of production and diversification of land use according to the prevailing conditions (e.g. crop production, livestock herding, and gum tapping and collection).

Seasonal migration of some of the family members or the whole family to work as hired labour in the irrigated agricultural schemes such as Gezira and Rahad and in the mechanized rain fed agricultural schemes is another important source of income. In recent years, migration of males to the city to work as petty traders and in the informal sector has increased significantly. Usually, migration to the city starts as seasonal migration during the off-season and after some time it turns into permanent migration. Women whose husbands migrate permanently suffer from severe poverty and they usually adopt coping mechanisms such as de-saving, cutting of expenditure, particularly on education and health, and making use of child labour.

Selling of firewood and charcoal is another activity that is practised by people in dry farming areas to compensate for the low agricultural incomes. The two studies conducted in Nile River and North Kordofan States has revealed that a considerable proportion of the household annual income is earned from selling of firewood and charcoal (32 per cent in Nile River State). This is a good example of the vicious circle of poverty and environmental degradation in which people in marginal areas are trapped.

One of the main problems of dryland societies is the scarcity of drinking water during the dry season. In Sudan, the main sources of drinking water during the dry season are the *hafirs*, which are large man-made reservoirs where rainfall water accumulates. In western Sudan, rainfall water is also stored in the *tebeldi* tree stem, which is made hollow and filled with water. Unfortunately, no use is made from other water harvesting techniques such as construction of dams and diversion of seasonal streams to irrigate agricultural lands.

Drylands in Sudan are very rich in indigenous knowledge and adaptation mechanisms in the areas of human and livestock medication (see Ibrahim, this volume). This valuable wealth of indigenous knowledge is untapped and is under the threat of being lost since it is not documented.

6. CONCLUSION

A large population in Sudan lives in dryland areas. The main economic activity in the drylands of Sudan is dry farming. Although only avoidance of deep ploughing is observed in Sudan, shifting cultivation is an

appropriate farming practice of land use system in the drylands. This is mainly because of land abundance, low population density, and the simple technology required.

However, lack of research to develop the appropriate technology that will lead to the development of shifting cultivation to cope with changes and developments in the other sectors of the economy is a dark spot in Sudan's rural development policy. The existence of the dry farming system with its above-mentioned characteristics makes it safe to describe the Sudanese economy in general and the agricultural sector in particular as being dualistic. The other sectors have witnessed a relatively considerable development in comparison to the dry farming system, which is characterized by the use of primitive production means, low productivity and prevalence of severe poverty with all its quantitative and qualitative dimensions. To adapt to these conditions people have adopted several strategies including seasonal migration to big cities, irrigated and rain fed mechanized agricultural schemes. This has increased the women's burden and in some cases caused social problems in the sending and receiving areas. Over-exploitation of the vegetative cover through the sale of firewood and charcoal has led to the degradation of the already fragile environment and undermined the sustainability of the system as a whole. Moreover, cutting of expenditure particularly on education and health care has caused the underdevelopment of the human resource, which is a prerequisite for any sustainable development.

Thus, the lack of appropriate technology and production inputs have caused people in the drylands of Sudan to resort to adaptation mechanisms that have negative impacts on the physical environment and on human resource. If appropriate measures are not taken, the role of the dry farming system in Sudan will diminish and the drylands will continue to be "pushing areas" in migration jargon.

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DE-STIGMATIZING FOOD-FOR-WORK IN RURAL PUBLIC WORKS: IMPLICATIONS FOR FOOD SECURITY AND RURAL DEVELOPMENT

*Mustafa Babiker**

'...before people can do anything they have got to eat'
(Senator Hubert H. Humphrey, 1957)

1. INTRODUCTION

In a beautifully decorated, elegantly furnished and perfectly cooled room, the quarterly meeting of the steering committee of a dryland development project was taking place in Khartoum in June. The round table was crowded with flasks (cold water, fruit juice, tea and coffee) together with numerous plates of fine dates and high quality roasted peanuts. One of the issues on the agenda was the near total crop failure in the project area and its potential impact on the project's activities. Just after less than half an hour's discussion, the participants (representatives of donors and government departments involved in the project) unanimously agreed that no food aid provided as food-for-work should be linked with the activities of a project whose underlying philosophy is popular participation and self-reliance. The less than two hours' meeting ended with each participant signing on a sheet of paper and receiving an envelope containing S£250,000. This was followed by a lavish lunch at a five-star hotel paid for from the budget of the project!

Food aid continues to remain a controversial issue especially in the context of development projects whose design concept is rooted in the establishment of self-reliant community-based organizations. Food aid has been strongly criticised because it can increase local dependence on imports, transform local consumption, and out-compete local food producers (Chazam and Shaw 1988; Valdes 1981; Watts 1983). In principle, no one would dispute a recommendation such as the one mentioned above, whose essence is a genuine concern with the strategic

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goal of building local capabilities and enhancing self-reliance. However, the call for a complete de-linking of food aid provided as food-for-work displays some lack of understanding of the context within which development projects operate in the East African drylands, in general and in the Sudan, in particular. That context involves cultural, ecological and historical variables.

The present exercise is, therefore, an attempt to clarify some of the misconceptions associated with food aid provided as food-for-work and hence to challenge the stigma attached to it. The first section of the paper demonstrates how food-for-work is not a new phenomenon, but an age-old strategy rooted in the culture and history of the East African dryland rural communities. The section that follows challenges some of the concerns voiced in the literature against food-for-work. Section three and four, respectively deal with the implications of food-for-work for food security and for rural development. The final section concludes the exercise.

2. FOOD-FOR-WORK: A NEW PHENOMENON?

It should be emphasized that food-for-work is not a new and recent phenomenon neither in the Sudan nor in East African drylands in general. Rather, it is an age-old strategy rooted in the culture and history of the people. In the Sudan, for example, *nafir*, the traditional institution for the mobilization of labour in individual (e.g., weeding, hut construction) as well as community (e.g., digging wells, building schools) initiated activities involves some sort of food-for-work. The amount of food and drinks offered in the context of *nafir* renders it similar to the modern concept of a “working lunch”.

East African drylands, by virtue of their geographical location, fall in an ecological zone characterized by chronic food grain deficits even in above average rainfall years. This is mainly a consequence of a rainfall pattern characterized by extreme spatial variability as well as temporal unpredictability. When the deficit is “normal”, the associated food gaps are usually bridged by the market through the importation of food grain from other parts of the region. However, successive drought years and total crop failures render the market an unfeasible option due to the total depletion of the people’s reserves and assets. During such periods, the people use local survival strategies such as population mobility in search of food.

During the colonial period, population movements were not welcomed by the authorities since they disrupted public works organized by the Native Administration. For instance, population movements in Kordofan were discouraged by the colonial authorities since they coincided with the season of gum tapping and collection, a major source of revenue for the government at the time. Moreover, the colonial authorities considered population movements and the consequent mass congregation of people around towns and cities as a potential political danger for their very existence. To guard against such undesirable movements and to maintain a policy of “no-free-food distribution”, the colonial authorities introduced a food-for-work approach in the implementation of public work activities during periods of serious food gaps. Several access roads and environmental conservation activities were constructed under such food-for-work programmes.

Rural public works, therefore, were strongly institutionalised and food-for-work was productively linked to road maintenance, pasture and water conservation, and forest reservation. The link was provided by grafting relief operations onto a continuous strongly institutionalised and decentralized rural public works programmes and social infrastructure development and maintenance. The existence of a strong framework of local government (Native Administration) was perhaps behind such an effective linking of relief with public works. The strict maintenance of food grain reserves at the local, provincial and national levels, to be promptly deployed when and where required, is another reason.

However, the policy of discouraging free-food-distribution has recently been revived. Free-food-distribution is considered undesirable as it undermines the image of self-reliance the present government has been struggling to convey to the public as well as to the international community in its daily political rhetoric. This is perhaps an explanation for the current ideological negation of food-for-work and food aid in general in official thinking.

3. FALLACIES ABOUT FOOD-FOR-WORK

The opposition to food-for-work reveals the severe tension between immediate needs for survival, and the strategic goal of creating self-reliant communities and avoiding “beneficiary dependence”, which is at the heart of the general food-for-work debate. In this context, several concerns are

expressed in the literature about food-for-work in rural public works. One concern is that the weaker and disabled are disadvantaged in terms of food entitlement programmes, which are based on participation in work (Rogers 1973; Wijaga 1983). However, experience has shown that the relatively less attractive nature of the manual tasks involved in public works very widely appears to draw in those who are disadvantaged in seeking other employment opportunities for reasons of lack of skills or physical disability, or class and gender discrimination. For example, in most of the empirically documented cases, the majority of workers involved in food-for-work activities tend to come from poorer households, which provide most of the unskilled farm labour. Members of the better off households are not likely to be attracted to food-for-work activities because they can earn higher incomes elsewhere. Such trends were observed in Baringo in northern Kenya where about 70% of the food-for-work participants came from households classified either as poor or very poor (Little 1992, 130).

Another example is the higher than anticipated scale of women participation in food-for-work in Bangladesh (Chen and Ghaznavi 1977; Dandekar and Sathe 1980; Marun and Hasria 1982). Similarly, in West Kordofan, a 1995 food-for-work operation in the context of El Odaya Integrated Resource Management Project, women constituted about 60 per cent of the total number of participants in all activities. In some activities, such as *rahad* (water reservoir) construction, women participation approaches 70 per cent (see Annex). Further evidence comes from Baringo in northern Kenya whereby 'many of the participants in food-for-work schemes are women, particularly widows' (Little 1992, 130). Thus, when the tasks involved in public works are essentially and socially relatively unattractive, it is more likely that the food-for-work commodities will be self-targeting on poor and potentially vulnerable households, mainly women-headed households.

Table 1. El Odaya integrated resource management project food-for-work activities, 1995

Activity	Work days		Direct beneficiaries			Food despatched (Tons)		
	Planned	Achieved	Men	Women	Total	Cereals	Oil	Sugar
<i>Hafir</i> construction	170,992	49,006	232	503	735	79.18	6.25	6.67
<i>Rahad</i> construction	42,875	42,190	202	448	650	75.10	5.32	5.74
Perimeter fencing	388	388	40	-	40	1.16	0.05	0.05
Agroforestry	23,495	7,615	420	344	754	22.85	0.91	0.91
Seed collection	200	200	5	-	5	0.60	0.02	0.02
Seed broadcasting	240	240	10	5	15	0.72	0.03	0.03
Tree planting	600	600	10	5	25	1.80	0.07	0.07
Micro-catchments	60	60	10	5	15	0.18	0.01	0.01
Water reservoirs	325	870	24	46	70	2.61	0.10	0.10
Total	239,571	101,169	943	1,356	2,299	184.20	12.76	13.6

SOURCE: World Food Programme, El Obied.

Another concern about food-for-work relates to its potential negative impact on agriculture. Payments in kind, re-trading by participants and local leakage of commodities have been considered as disincentives to local food production (Jackson, 1982; Singer 1978). Injecting additional food into an area, which substitutes for purchases of locally grown food as the argument goes, can depress local prices. Moreover, re-trading by beneficiaries increases food supply in the local market and can similarly reduce prices. However, little evidence has been found of such localized disincentive effects of major food-for-work programmes in Ethiopia and Bangladesh (Clay 1986, 1245). Unless markets are poorly articulated, such disincentive effects will probably be temporary except where the overall programme is of such a scale as to have national impact (Clay 1986). However, this is improbable because of the scale of most food-for-work programmes. For example, in El Odaya project, referred to earlier, the average quantity of cereal acquired per participant as food-for-work in 1995 was 80 kg (see Annex). That amount is just enough to keep an average family (5-7 persons) for only 4 weeks. This further challenges the fallacy of the “dependency syndrome”, associated with food-for-work by Jacob Ulrich, who has recently reviewed the participatory approaches to natural resources management in the Sudan (Ulrich 1995).

In some cases such as Baringo in northern Kenya, there is evidence to suggest that the importation of food aid had a profound effect on the production and consumption of local grains. Thus, the substantial subsidies for European-produced maize and the complex support services surrounding that commodity forced out local production of millet and sorghum. In this way, while the immediate situation was improved, the long-term effects on food security of the massive importation of maize were not favourable (Little 1992, 126). However, there is no evidence to suggest that this should always be the case. To the contrary, the recent experience of north Kordofan showed beyond doubt that food-for-work has had no such dramatic effect on local production and consumption as the main relief food, wheat, is not yet a focus of the local diet. The workers often sell at least a portion of their allocation of wheat to purchase the favoured food grain, millet, with positive effects on its local prices. Thus, as north Kordofan is a major millet producing area, food aid is not likely to compete directly with much of local production. However, food aid provided as food-for-work can indirectly increase the cost of agricultural labour, but this will principally hurt wealthy households who hire labour.

A further concern about food-for-work relates to the possibility of attracting labour away from agricultural production. Again, the literature provides little substantive evidence of a sustained competition for labour, which has a negative impact on agricultural production. To the contrary, in most East African drylands, periods of intensive public work activity do not clash with peak season labour requirements in farming. Agricultural employment is highly seasonal, and peak labour demands are confined to the short rainy season (July-October). Moreover, the fact that rural public works have traditionally been organized in the dry seasons in which employment opportunities are relatively restricted, food-for-work activities represent an additional demand within the labour market. This may have a significant positive effect on real wages and incomes rather than being a disincentive to farming through loss of labour. Furthermore, there is ample evidence to suggest that rural people would not be enthusiastic to participate in food-for-work activities organized during periods of peak labour requirements in farming. Again, food-for-work organized in the context of El Odaya project supports this suggestion. Thus, while about 98 per cent of the planned work days offered as food-for-work in *rahad* construction - a dry season activity - in 1995 were

achieved, only 32 per cent were realized in the case of agro- forestry - a rainy season activity (see Annex).

4. FOOD-FOR-WORK AND FOOD SECURITY

Food-for-work in emergencies is primarily intended for offering temporary employment to supplement or substitute for sources of income reduced or lost through natural or civil calamity. Sen's (1981) emphasis on the inability of affected households to sustain their food entitlement, i.e., to finance food purchases out of income, underlines the importance of food-for-work in replacing temporarily lost livelihoods in the wake of natural disasters.

Food aid, provided as food-for-work in the context of rural public works, has a long history as a food security measure in times of distress and famine (Bhatia, 1976; Woodham-Smith, 1962). Through these, the means of survival are provided for the destitute, and the temporarily vulnerable pastoral and farming households may be spared the need to sell their assets to provide for short-term consumption (Clay 1986, 1239). Maharashtra in 1984, Bangladesh in 1979/80 and Ethiopia in 1983, were recently cited as examples of food-for-work operations providing an effective response to an emergency. In each case, an enhanced level of public work was determined in response to a rapidly developing crisis - in preference to the provision of entitlements only through direct feeding or rural rationing mechanism (Clay 1986, 1240). In Turkana and Karamoja, following the drought of 1979/80, the straightforward relief operations in which food was freely distributed were transformed into food-for-work activities in a so-called rehabilitation phase (Fitzpatrick 1986). Similar developments were documented in the case of western Sudan, following the drought of 1990/91.

Although, on aggregate, food-for-work programmes tend to make only a slight contribution towards reducing grain deficit, for participant households it could provide up to 80% of their grain needs. This is why when a food-for-work programme is introduced in any locality, many households, such as those headed by widows, with only minimal means to finance food purchases, are the first to be attracted and to immediately benefit from food payments. In the 1980s and most of the 1990s, the low returns on dry farming - the main production option for livestock-poor

families - made the food-for-work programmes appealing to those with an opportunity to join.

Thus, it is clear that food aid provided as food-for-work can play an important role in sustaining the assets and livelihoods of pastoralists and farmers and those they are likely to employ through periods of crisis. In other words, food-for-work can avoid or limit the disintegration of normal patterns of production and employment and the assets on which they depend: livestock, land, seed and equipment. In this way, food-for-work paves the way for the institutionalisation of an effective preventive system of food security and disaster preparedness. In the absence of such a system, the long-term implications of a natural calamity for pastoralists and farmers can be grave. For example, a major consequence of the Sahelian drought of the early 1970s and 1980s was the large transfer of livestock out of the possession of traditional pastoralists to the so-called "new pastoralists" (Baxter 1993; Hogg 1986; Little 1985; also Egemi, this volume).

5. FOOD-FOR-WORK AND RURAL DEVELOPMENT

One concern about food-for-work is that the use of food payments to compensate labour that had formerly been recruited on a community basis, with each household providing assistance, jeopardises the sustainability of local initiatives after food aid is withdrawn. While this might be true in the case of productive activities such as the maintenance of indigenous irrigation works (Little 1992, 132), it is not necessarily true in the case of essential service activities such as the maintenance of drinking water catchments whereby the well off provide the food and the poor undertake the manual labour. Moreover, recent food-for-work programmes, such as the case of El Odaya Integrated Resource Management Project mentioned earlier, deal almost exclusively with natural-resource-based activities, including tree planting, range conservation, and small-scale water management, and they emphasise a participatory (i.e., community) approach to these activities. The latter dimension clearly distinguishes recent food-for-work programmes from the earlier schemes that were implemented during the colonial period with little concern as to whether or not local people participated in planning and implementing decisions.

Furthermore, the root-and-branch critics of food-for-work, in their rush to generalize, tend to ignore the specific temporal, social and political

contexts under which rural development projects operate. If there is a serious food gap in an area, abandoning food-for-work altogether can have serious implications as far as the implementation of rural development projects is concerned. In this regard, there are three possible scenarios. First, if food is not forthcoming many people will move outside the project area in search of food and employment opportunities. Recent experience in East African drylands has shown that women, children and other vulnerable groups are the first to move out. Since these groups are the most active participants in community activities, the serious implications as far as project implementation is concerned cannot be too difficult to imagine.

Secondly, another agency might come into the area with the intention to distribute food freely. The high profile a free food distribution usually commands would entice the public to see any decision by the project to abandon food-for-work as a total disregard for, and a display of lack of concern to, their plight. Moreover, there is the associated danger that such an agency might act in a way to enhance its own priorities, which might be detrimental to the longer term developmental objectives of the project.

Finally, if the government maintains a firm stand against free-food-distribution, a potential conflict situation may arise. The government, being financially bankrupt, organisationally unfit and technically unequipped to organize public works, will look for what is already going on in the project area to associate it with emergency food aid offered as food-for-work. In this regard, the activities and the resources of the development project are likely to be a candidate for such an undertaking.

It seems that there is little freedom for development projects in East African drylands to avoid the option of food-for-work in implementing their activities at times of serious food gaps. However, there still is room for withdrawal from food-for-work activities in the form of a phasing out and gradual transfer to community based organizations. Local management of food-for-work activities can be built by a carefully planned intervention including training and capacity building in the key management skills and processes relevant to food-for-work operations. But building that base of skills means investing more effort and money, and in effect should perhaps be a central activity in the design of any rural development project in East African drylands, where crop failures and the consequent food scarcities are recurring phenomena.

The position outlined here is based on the fact that in cases of total crop failure and serious food gaps, recovery requires at least 3 to 4 consecutive years of above-average harvest. Thus, in an agrarian system very dependent on human energy, and where food in general is perhaps the most decisive input, the inflow of food should be seen as playing a major rehabilitation and developmental role. This argument departs from the firm belief that it is a mere fallacy to classify public action in the context of chronically food insecure areas into mutually exclusive categories of “relief” and “development”.

In East African drylands, the aim of food aid provided as food-for-work should be to avoid the on set of famines by protecting the food security of the vulnerable groups - they need not be already starving but they can see the impending danger. An effective system of food-for-work in this context should be ready to go into action as soon as it is needed and it should ideally fall out of use when it is not required. Thus, the long-term rural development strategic thinking in the case of East African drylands should focus on the issue of merging food-for-work with development.

6. CONCLUSION

In this paper I have tried to demonstrate how building rural public work activities around food aid available as food-for-work could be a powerful and successful instrument of food security and rural development policy in high-risk areas. I do hope that the arguments advanced here would be of some assistance to those concerned with rural development planning in East African drylands in making a strategic decision of merging food-for-work with development. The important issue is to undertake what is realistic and achievable so that any possible trade-offs of operational effectiveness are kept insignificant.

However, the argument presented here is essentially a reaction to those who oppose food-for-work simply because in recent decades the sources of food are, in most cases, the USA and Western Europe. This kind of opposition is, at best, off-the-point. The issue at hand is not about where the food comes from; rather, it is about what the food does in terms food security and local development in high-risk areas. Moreover, it is not necessary that food-for-work programmes should always be operated with some kind of dependence on overseas food aid. In fact, it should be the policy of national governments to maintain strategic food reserves to be

deployed as food-for-work rather than given as handouts in the context of free-food-distribution operations.

Nevertheless, it is a mockery and evidence of sheer hypocrisy that the most hard-line opposition to food-for-work tends to come, not from the toiling herders and cultivators, but from those who have the luxury and, at times, the official blessing and protection, to march towards the American embassy chanting 'down down USA'; then, a few moments later, before their sweat dries up, they are totally unashamed to be publicly seen eating hamburgers with French fries and drinking Coca Cola while listening to Madonna!

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NOMADS' EDUCATION IN THE SUDAN: THE MOBILE SCHOOL EXPERIMENT

*Suaad Ibrahim Eisa**

1. INTRODUCTION

Illiteracy among the Sudanese nomadic communities is very high (about 95%). Economically, nomads are greatly associated with their animals, which they value very much and consider as a measure of social status. According to the 1993 population census, the nomadic population was estimated to be about 8.5% of the total population of Sudan, while the nomads' contribution to the GNP was estimated to be in the region of 12%. However, in the absence of birth and death registration among all nomadic communities, it is difficult to obtain a reliable estimation of the total number of the nomadic population in Sudan.

Nomads have regular annual movements, following special migratory routes, which they change only in cases of natural disasters, such as droughts, or civil strife. During the rainy seasons, nomads are widely dispersed following their animals. The Baggara (cattle nomads), who live mainly in south Darfur and south Kordofan spend the rainy season between July and October in the northern sandy zone; they spend the dry season between November and June in the southern parts of the rich savannah around the tributaries of the White Nile, mainly Bahr el Arab.

The Abballa (camel nomads), who live mainly in north Kordofan and north Darfur, have three types of movements: a) *Shogara*, i.e., the southward movement between June and August, which starts with the first signs of the rainy season; b) *Nushog*, i.e., the northward movement between August and January; and c) *Damar*, i.e., the summer time between January and June which they spend in the well centres around their permanent settlements. The semi-nomadic sheep-owning agropastoralists, who live in west Darfur, follow relatively short-period and short-distance movements.

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Labour contribution by all members of the household is characteristic of the division of labour in nomadic communities. Each member of the household has a prescribed role to play in the socio-economic life of the family. Children aged 6 years or less look after the sheep/goats, while those aged 7 to 9 fetch water and collect wood for fuel. Female children have an added responsibility of helping their mothers with cooking and of looking after the youngsters. When enrolled in mobile schools, nomads' children have to perform their duties either before or after school hours. Animal herding is generally shared between fathers and children of both sexes.

This paper is meant to highlight the different challenges faced by nomadic education before the adoption of the multi-grade one-teacher mobile school. A full profile of the mobile school will be drawn - being a new type of educational institution - to review its success in meeting the educational needs of nomadic societies. It is also the aim of the paper to reflect on the impact of mobile school education on the socio-economic life of nomadic societies.

2. BACKGROUND

Khalwa, as in all other Sudanese societies, was the first educational institution to serve nomadic communities. The *Sheikh*, the *Khalwa's* sole teacher, moves with the nomads in their different journeys. During the *Damar*, i.e., the season of less nomadic mobility, the *Sheikh* starts the introduction of his religious lessons, which is the main subject of the *Khalwa* education. Nevertheless, nomadic communities are still stereotyped for their ignorance in religious matters.

During colonialism, the government adopted the Indirect Rule Policy, which provided the heads of tribes with some authorities to rule their communities on behalf of the central government. The Native Administration Law was issued to legalise and organize tribal authority. However, to ensure the successful implementation of the law, the government decided to offer special education to the children of the heads of tribes, who were to shoulder the responsibility of ruling their communities in the future. The first schools to serve that purpose were established in 1925. Six primary boarding schools were opened in places where tribalism was very strong. Children admitted to those schools were to proceed to the highest levels of education available at that time, without

being subjected to any rules or regulations of admission. Only a small group of those children continued their education to the highest levels and formed a special class of heads of tribes.

Another attempt at nomadic education was Hassan Nageela's, a Sudanese teacher who decided to live among the Kababish tribe and practise all their modes of life, while teaching the members of that tribe during the periods when they stayed in their permanent settlements. Nageela wrote a book *Zikrayaty fi elbadya* [My memories in the desert] about that experience.

Both of the above mentioned efforts were limited to a small number of the nomads' children, but they formed a good base for the nomads' future claims to access to formal education.

After independence in 1956, nomadic education remained a serious challenge to the national governments. Many trials were made towards the provision of nomadic education to nomadic communities but without tangible results. However, in 1990, the government of Sudan adopted the Joint World Declaration of Education for All and the Framework of Action to Meet Basic Learning Needs, which impel generalised and compulsory education for all by the year 2000. In 1992, a conference on nomadic education was held in north Darfur. The recommendations of that conference supported the efforts existing at that time, which aimed at the expansion of boarding school facilities to reduce the increasing number of nomadic children dropping out of schools.

3. THE MOBILE SCHOOL EXPERIMENT

The main objectives of mobile school education are:

- a) To increase access to basic education for nomadic children, to promote 80% enrolment and retention of children in basic education.
- b) To support qualitative strengthening of mobile education system for nomadic children through teacher training and development of appropriate learning methods and materials.
- c) To support the expansion of mobile education initiatives to cover the majority of nomadic children in the Sudan

The majority of teachers in mobile schools are recruited from basic education schools. Others are appointed from those who complete high schools. Both groups of teachers are subjected to a short period - two weeks to 3 months - of pre-service training where they learn about management of multi-grade one-teacher school in addition to courses in healthcare - mainly first aids, immunisation, common veterinary diseases and their cures - and environmental conservation. Female teachers receive an additional training in midwifery. However, the number of female teachers in nomadic schools of Darfur is very small. In 1997, there were only 12 female teachers out of 200 teachers in Darfur. Ten out of the 12 female teachers were found in West Darfur State, two were in South Darfur, and none in North Darfur (see Table 1). Although the majority of mobile schools' teachers are from nomadic origin, this gender imbalance was attributed to the harsh and risky life of the nomads, which is very difficult for female teachers to cope with. Being so characterised, teachers who agree to teach in mobile schools receive incentives from nomadic communities both in kind and in cash. These incentives vary from place to place, but on average, each teacher receives a total number of 10 to 15 animals during the whole period of his 3 to 4 years' contract. Nomadic communities, generally, take the responsibility of looking after the teachers' animals as long as those teachers continue to live among them. Teachers also receive a monthly incentive of 5000 to 15,000 Sudanese pounds plus a daily provision of food and water. The security of the teachers' life is also the responsibility of the nomadic communities.

Table 1. Distribution of teachers and pupils by sex and percentages of females to males in the States of Darfur, 1996/1997

State	Total no. of teachers	Teachers		% F/M	Pupils		% F/M
		M	F		M	F	
South Drafur	112	102	10	9.8	3028	1398	4
West Darfur	37	35	2	5.7	1144	578	51
North Darfur	51	51	0	0	1782	932	52
Total	200	188	12	6.0	5954	2917	49

SOURCE: UNICEF 1998.

Although the percentage of female pupils to males is the greatest in North Darfur, there is no female teacher in mobile schools in that state.

4. MANAGEMENT OF MOBILE SCHOOLS

Mobile schools in general have a maximum of two grades at a time. Teachers of mobile schools have to choose between two options in organizing school hours and in how to teach the children of the two grades. They either admit the two groups of children at the same time, or receive each group at a different time.

In the first case, teachers have to choose between two methods of organizing the two groups. They either keep them together in the same class, or keep each group in a separate place in the school. When children are separated, the teacher has to introduce his/her lesson to one group and give them an exercise to keep them busy while he/she practises the same procedure with the second group. In such cases, the teacher always nominates a monitor from the same grade to keep order in the class while he/she is in the second grade. One negative aspect of this procedure is the loss of the children's time when they face a difficulty in their exercises and have to wait until the teacher returns to give them a solution.

When the two grades are kept together in the same class or place, the teacher follows the same procedure by introducing the lesson to one grade then moving to the other. In this case, teachers can control the two groups more than in the first method; however, to be involved with the students of one group while the others sit idly waiting for their turn makes it difficult for the children to be disciplined.

When the teacher chooses the second option of having each grade in a separate time from the other, i.e., two shifts, the school daily hours are divided into two shifts. Each shift of hours will be devoted to one group of children. Generally, the first shift, which occupies the time from 8 until 11 a.m., is attended by the lower grades, while the time from 11 a.m. until 2 p.m. is attended by the upper grades. However, because of the shortage of school hours, educational activities apart from those included in the syllabuses are very rare and when they occur female children are always excluded.

Dropouts among nomads' children are still high. Male children tend to drop out because of work commitments. They accompany their fathers in

their movements after the animals, or in cases of tribal conflicts and the associated need of families to move in search of security. In such cases, most children will return to school when the causes of their dropout end. Females tend to drop out because of early marriages in nomadic communities.

5. MOBILE SCHOOL CURRICULUM

The national curriculum is adopted for nomadic basic education. However, some contents of that curriculum are irrelevant to nomads' socio-economic life. Still nomadic children have to learn it to compete for secondary level of education. Some teachers in mobile schools especially those who are newly recruited from high school leavers consider the national curriculum difficult to teach. In general, the national curriculum needs to be modified to meet the special needs of nomadic culture and modes of life.

One major problem facing the national curriculum in some mobile schools is the failure of those schools to complete their syllabuses at the end of the prescribed 4 years of education. Length of the school year in mobile schools varies from 3 to 6 months at the most, depending on the availability of enough water and pasture for nomads' animals to enable the nomads to settle in one place the longest time possible. Absenteeism of teachers is another factor undermining the already reduced time of mobile schools. When a teacher leaves the school for any reason, education in that school will be disrupted until his return. Children from schools that failed to complete the required syllabuses have to spend an additional year in cluster boarding schools to cover those syllabuses before they proceed to the fifth grade.

6. THE IMPACT OF MOBILE SCHOOLS

It is too early to decide on the real impact of mobile school education on the socio-economic life of nomadic communities, because the experiment is only five years old. However, some positive trends can be mentioned:

- a) The positive attitude of nomadic communities towards education which is reflected in the increasing demand for the establishment of more mobile schools or for the admission of more children to the already established schools (see table 2).

- b) The interest of fathers in their children's learning, reflected in their enquiries about their children's progress in school especially after examinations.
- c) The return of dropout children to school after the reasons responsible for dropping out are ended.
- d) The provision of incentives to teachers especially that of animals, which is considered as the greatest evidence of the nomads' positive attitude towards education. Nomads are well known for their great attachment to their animals. To sacrifice that number of animals to mobile school teachers is a real positive change in the nomads' attitude towards education.
- e) Some nomadic families started to settle down in one place mainly for their children' education. This phenomenon is more noticeable among the Abballa tribes in north Darfur. Mothers, children and the elderly remain behind while fathers and adult males move after the animals.
- f) The teachers assist nomadic societies by reading letters or any other documents they receive. In the past, nomads had to travel for two or three days to find somebody to read for them.
- g) Although nomads prefer males' education to females' in general, lately some families have started to send married females back to school immediately after marriage.
- h) Enthusiasm of illiterate females towards education and their regret for being illiterate. The majority of young illiterate females expressed their willingness to be educated despite the family commitments that occupy all their time and energy.

However, the present impact of mobile school education on nomadic societies does not reflect the real impact on their socio-economic life, which is the main objective of nomadic education. Four years' education in mobile schools is not enough to provide nomadic children with enough qualifications to enable them to contribute positively to the required socio-economic change in nomadic communities. When children move to cluster boarding schools for the completion of their basic education, families will lose the needed labour input of these children in addition to worrying about the capability of those children to take care of themselves.

Nomads in general are very suspicious about the probability of their children's return to nomadic life once they move to urban areas whether for education or otherwise. For those reasons, nomads prefer the increase of mobile education to six years instead of four. In such case, the system of multi-grade one-teacher needs to be changed and teachers for the additional subjects need to be availed.

Table 2. Distribution of schools and pupils by sue in greater Darfur (1993/1994) and Darfur States (1996/1997)

Year	State	No. of schools	Pupils		Total
			Females	Males	
1993/1994	Greater Darfur	76	-	-	3634
	South Darfur	112	3028	1398	4426
1996/1997	West Darfur	37	1144	587	1731
	North Darfur	51	1782	932	2714
	Greater Darfur	200	5954	2917	8871

SOURCE: UNICEF 1998

7. CONCLUSION

After the completion of the first four years of the experiment, the mobile schools had succeeded in realizing some of their purposes. The number of mobile schools increased from 76 at the beginning of the project in 1993 to 200 in 1997. The number of children enrolled in 1993 was 3634 while those enrolled in 1997 was 8863 in spite of the high rates of dropouts among nomadic children.

However, the project of nomadic education still needs great support to achieve its objectives. More urgently, the following suggestions should be considered by those concerned with nomadic education for the sustainability and development of the project.

- i. It is highly recommended that the 4 years of mobile school education should be increased to six for the benefits of both

nomadic children and families. In such cases, teachers for the new subjects should be recruited. Nomadic communities have to pay their contribution to the financial needs of the new changes.

- ii. The national curriculum should be modified and supplementary special materials that serve nomads' socio-economic life should be introduced.
- iii. State governments should issue some laws or legislations to enforce basic education among all nomadic communities and to prohibit early marriages among females.
- iv. There must be special consideration for nomads' children when they reach higher education. Those children have to be qualified in a way that oblige them to go back and work in the development of their nomadic communities. The present available qualifications of higher education tend to prepare the graduates to serve the urban areas more than the rural areas, a prospect the nomads very much fear.

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TUMBAK PRODUCTION AND MARKETING IN SUDAN: A CASE STUDY OF KAFOAT, NORTH DARFUR

*Mohamed El Tayeb Abdalla**

1. INTRODUCTION

Tumbak is the common name for a certain type of tobacco grown in some parts of western Sudan in general and in north Darfur in particular. Its production goes through a long process. It is rolled into small balls and put inside one's mouth between the front teeth and the lower lip. It gives a feeling similar to that of smoking a cigarette.

Cultural practices and processing activities of *tumbak* have remained traditional. Neither agricultural nor industrial research has been undertaken to evaluate the traditional practices with a view to making recommendation for the development of the commodity. *Tumbak*, however, is the main cash crop in North Darfur State (NDS). Over 80% of its production comes from NDS.

Tumbak is the main cash crop to the farmers in Kafoat. It is widely grown in Abu Sakeen Valley - a famous valley in the northern side of Kafoat. During the 1980s, some farmers in Abu Sakeen area introduced new crops such as onion, peanuts, kidney beans, okra, tomatoes and some fruits. Although the farmers have many alternatives for generating cash, they still suffer and no change in their material life seems to have taken place. This is so while some merchants in El Fasher, the capital city of NDS and Khartoum State, are very happy with *tumbak* as it generates good profit margins. On the other hand, as a government official in NDS said, income from *tumbak* represents the backbone of the state's income. Why does the farmer continue with *tumbak* production although his standard of living does not change? Are returns on *tumbak* higher than returns on other cash crops, e.g. onion, peanuts, etc., grown in Abu Sakeen Valley? This paper will try to address these questions.

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2. TUMBAK PRODUCTION IN NORTH DARFUR

Tumbak was brought from the United States of America to the western coast of Africa by sea navigators. It was first grown in Tumbookto in Mali, thus it was named *tumbak*. It entered western Sudan through Chad and it was first planted in Morani and Arara in Geniena province. Its introduction to NDS was through Egypt by Hussien Wad Amari - hence the other popular name for *tumbak*: Wad Amari (Ibrahim 1996).

NDS consists of four provinces. There is specialization in growing specific crops. In Umkeddada province, El Tiwiesha and El Liayit, where groundnuts and millet are grown, are specialized in rain fed agriculture. Kutum and Kebkabiya provinces are specialized in growing vegetables and fruits. El Fasher province is specialised in growing millet and *tumbak*. *Tumbak* is grown in five localities in El Fasher Province. These are: El Fasher Town, El Fasher Rural, Taweela, Dar El Selam, and Korma.

In Korma, *tumbak* is grown in the valleys and wetlands, i.e., river-like waters that run through these valleys from Chad. These waters pass through Abu Sakeen and Kafoat, where it is known as “wadi Kafoat”, and ends in Golo - a big water reservoir that supplies El Fasher town.

During 1996, El Fasher’s *Tumbak* Auction Market received 117,638 sacks of *tumbak*, i.e., about 293,847.5 quintals. This figure, however, does not indicate the actual production for 1996. These are in fact the amounts sold to merchants and that were registered inside the *Tumbak* Auction Market. Large amounts of the produce were usually sold outside the Auction Market; no restriction is put on market places to sell and buy *tumbak*. Furthermore, farmers, especially the well-off, store their produce to sell later at higher prices. Table 1 below presents *tumbak* registered at El Fasher Auction Market during the year 1996.

Table 1. *Tumbak* crop registered at El Fasher *Tumbak* Auction market, 1996*

Month	Amount (sacks)
January	9435
February	11126
March	10674

April	13316
<i>Contd.</i>	
May	14675
June	12522
July	10315
August	8416
September	6711
October	5927
November	6785
December	7637
Total	117539

SOURCE: *Tumbak* Auction Market, El Fasher

*One sack of *tumbak* contains 2.5 quintals

3. KAFOAT AND ABU SAKEEN

Kafoat is the biggest centre in Korma. It covers about 600 km², more than 50% of the total area. Total population of Kafoat is about 15,000. It shares borders with El Fasher Rural Council Locality in the east, Kutum Province in the west, Gabrel Ganam in the north and Koabai in the south. Kafoat is divided into 22 village councils. The citizens of Kafoat are mainly from the Tunjur tribe.

Abu Skeen is a famous valley with fertile land for growing *tumbak*. Water during the rainy season flows from Kutum through this valley. Since the early 1980s, some teachers introduced vegetables and fruits to be grown in Abu Sakeen as cash crops. During the dry season, irrigation is possible from wells dug one to two meters deep. Plantations, however, were in small areas until 1990 when the farmers were able to introduce water-pumping machines. Therefore, farmers could cultivate onion, peanuts, tomatoes, okra, etc.

Tumbak is grown during the dry season. The valley is suitable for growing *tumbak* during the dry season, as it does not need big quantities of water to irrigate. Therefore, when water-pumping machines go out of order, farmers resort to cultivating *tumbak*. Furthermore, as farmers clarified, *tumbak* production does not need many workers as other vegetables do. However, from field investigations, onion seems to be the second important cash crop in Abu Sakeen.

4. TUMBAK AND ONION PRODUCTION IN ABU SAKEEN

Tumbak production is one of the most difficult and time-consuming agricultural activities to the farmers of NDS. It starts before the rainy season and goes on for as long as seven to eight months. Production activities include the following:

- Land preparation: plots cleaning; ploughing. Farmers may use animal traction and earth embankment where plots are prepared in such a way as to make use of flowing water during the rainy season
- Sowing: *tumbak* seeds are scattered in open nurseries in light clays where earth has been embanked.
- Weeding: during the seedling stage some grasses grow side-by-side with *tumbak*, they are disastrous to *tumbak* and should be cleaned out.
- Second weeding: this is known locally as *jenkab*; it is the continuation of cleaning grasses, which keep growing after they were cleaned in the previous stages.
- Transplanting: this is known locally as *magan*, i.e., planting *tumbak* seedlings in the plot. The local people believe that transplanted *tumbak* is more productive than directly seeded *tumbak*.
- Harvesting: this is a long process which goes through five steps: a) removal of the newly growing racemes; b) picking of leaves; c) removal of racemes for seed production; d) removal of the late growing leaves and apical buds; e) chopping of stem; and f) fermentation process.

Onion production is also a long process but not as long as *tumbak* production. It goes through seven steps: land preparation, ploughing, earth levelling, earth embankment, transplanting, irrigation, and harvesting.

It is worth noting that irrigation using pumps has been widely introduced in Abu Sakeen since the early 1990s. As described above, there are many production activities to be undertaken by the farmer before *tumbak* becomes a marketable commodity. The average family size in the area

studied is 10. Therefore, farmers depend heavily on family labour as shown in Table 2.

Table 2. Type of labour used in production activities

Type of labour crop	Family	Hired	Other	Total frequency
<i>Tumbak</i>	33	36	16	85
Onion	15	17	5	37
Peanuts	1	1	-	2
Tomatoes	1	1	1	3
Millet	2	2	2	6
Okra	-	-	1	1
Total frequency	52	57	25	134
%	39	43	19	100

SOURCE: Field survey.

In the table above, family labour represents 39% while hired labour represents 43%. This shows the importance of the family in availing labour to produce *tumbak*. This is not taken into consideration when the farmers calculate the cost of production. The rest of the labour used in *tumbak* production is communal labour, known locally as *nafir* or *tawiza*, a social institution involved in production activities in rural Darfur. This represents 19% of the total labour involved in the production. Out of the 52 frequencies that represent family labour, 33 are involved in *tumbak* production and 15 in onion, i.e., 63% and 29%, respectively. This means that *tumbak* depends heavily on family labour. Other crops share low frequencies because they were produced in small amounts.

Tumbak and onion production are not financed from banks. Onion production does not cost that much but *tumbak* costs a large amount of money, which is beyond the farmer's ability to finance. Therefore, to finance *tumbak* production activities, farmers resort to advance sales to get loans from merchants. This is generally known as *shail* system, but in the case of *tumbak* it is known as *abu-tilees*. Average production costs of a quintal of *tumbak* and that of a sack of onion are £S32,329 and £S 14,829, respectively. These have been calculated from the costs of the different production activities of the two crops grown by a sample of 45 farmers in

Abu Sakeen. Out of these 45 respondents, 42 cultivated *tumbak* in 1996 while only 14 cultivated onion. Total quantity produced was 356 sacks (i.e., 889.33 quintals) of *tumbak* and 383 sacks of onion. Some farmers produced as much as 100 quintals of *tumbak* in 1996; others completely failed to produce a single pound. Such failure is also true in onion production. The maximum quantity of onion produced per farmer was 40 sacks. Production and production costs alone do not give a meaningful economic understanding and judgement to the success/failure of the two crops without weighing them against sales.

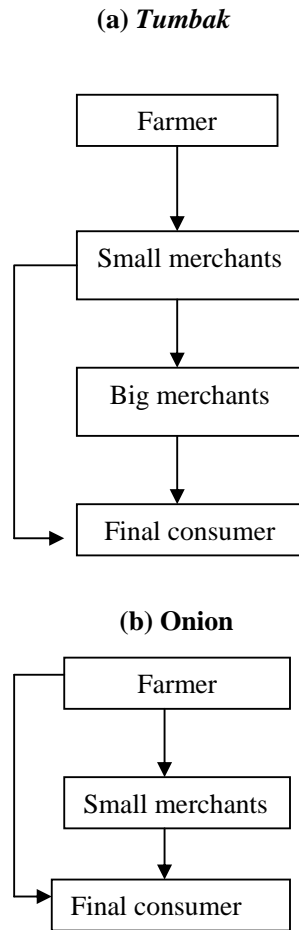
5. TUMBAK AND ONION MARKETING

5.1 Channels of Distribution

Tumbak and onion are produced in Abu Sakeen and sold at the farm-gate and/or at markets far away from the production centres. These far-away markets are in Maleet town, a big commercial centre in NDS and in EL Fasher, the capital city of the State. Onion is not transported farther than these centres. However, *tumbak* is transported to other markets such as Nyala the capital city of South Darfur State and to all other locations in Sudan.

These two crops are distributed either directly from the farmer to the merchants or through intermediaries. Channels of distribution of the two crops are shown below:

Figure 1. Channels of Distribution



Tumbak producers may sell directly to merchants either at the farm-gate or at EL Fasher Auction Market. However, in many cases they have to go through intermediaries. This is because the price is usually high and merchants are not ready to make prompt payments. Figure 1 shows channels of distribution used in selling *tumbak* and onion. From table 3,

out of the total frequencies of 22 for onion, 19 were distributed directly. This is 86%, which is quite high; this is because onion price is not that high and payment can be made instantly. On the other hand, one third of *tumbak* (22 frequencies) had intermediaries involved while two thirds (42 frequencies) were distributed directly either at farm-gates or transported by the farmer to EL Fasher. Most of the directly distributed *tumbak* is transported to Khartoum; the farmers have to chase the merchants in Khartoum and wait for months to get their sales moving. In some cases, there is more than one intermediary in *tumbak* sales. This raises the price, which cuts from the farmer's profit margin.

Table 3. Frequencies of channels of distribution of *tumbak* and onion

Channel	<i>Tumbak</i>	Onion	Total
Direct	42	19	61
Middleperson	22	3	25
Total	64	22	86

SOURCE: Field survey.

Table 4. *Tumbak* and onion returns (S£)

Crop	Sales	Costs	Return (profit)
<i>Tumbak</i>	4,020,956	1,325,476	2,695,480
Average per quintal	98,072	32,329	65,743
Onion	261,833	20,7607	54,226
Average per sack	18,702	14,829	3,873

SOURCE: Field survey.

In table 4, the *tumbak* total costs are only one third of the sales price leaving a profit of 67%. Average sales price per quintal is S£98,072, which is big and very attractive income, particularly when compared with returns on onion. Average sales price of one sack of onion is only S£18,702, almost 80%, after cost in production and marketing activities, only 21% (S£3,873) is left as profit.

However, the above comparison should not be taken at face value. That is because most of the production cost for *tumbak* is money paid to hired labour. Hired labour, as shown in Table 2, is 42% of the total labour involved in producing *tumbak*. Family labour represents 39%, quite a recognizable effort is put by the family. If this family labour is calculated and valued as production cost, the farmer could hardly break even. Another important factor to recognize here is that not all crops produced are sold. Table 5 below shows the 1996 *tumbak* and onion quantity produced and sold by the sample studied.

Table 5. *Tumbak* and onion production and sales in 1996.

Crop	<i>Tumbak</i> (quintals)	Onion (sacks)
Production	889.33	383
Sales	778.33	207
Difference	111	176
%	12	46

SOURCE: Field survey.

Table 5 above shows that only 12% of the produced *tumbak* was not sold. This is usually stored for the future to be sold at higher prices. However, 176 sacks of onion out of 383 sacks, i.e., 46% were not sold. This is partly consumed and partly to be sold in the future when prices are more favourable, in both cases benefiting the farmer. Therefore, one can say that half of the onion produced is marketed while the other half is for consumption.

When asked whether they prefer cultivating *tumbak* to other vegetables, the farmers seem to give equal weight to both. This is shown in table 6. The main reasons given revolve around the following:

- a. Price fluctuations; therefore, one crop can make a good return to compensate for other crops whose prices are going down.
- b. Production of one crop may fail; the others compensate, i.e., to avoid the risk of depending on only one crop.

- c. Sales proceeds of *tumbak* are usually received very late; during these delays, returns on vegetables can be used to meet daily expenses.

Table 6. Preferences for cultivating *tumbak* and vegetables

Crop	<i>Tumbak</i>	Onion & other vegetables	Both crops	Total frequency
Frequency	6	5	32	43
%	14	12	74	100

SOURCE: Field survey.

5.2 Returns on Other Crops for the Farmer

Farmers in Abu Sakeen grow other crops, e.g. tomatoes and peanuts. Two daring examples are a farmer dwelling in Um Arda village who grows peanuts and another one dwelling in Shamoota village who grows tomatoes as cash crops. Table 7 below shows costs and revenues of the two crops as well as profit margins.

Table 7. Returns on peanuts and tomatoes (£S)

Item	Peanuts (sack)	Tomatoes (vessel)
Production costs	57,500	756
Marketing costs	4,000	100
Total costs	61,500	856
Sales	150,000	7,000
Profit	88,500	6,144
%	59	88

SOURCE: Field survey.

There are cases where farmers grow both *tumbak* and onion. This is diversification to lessen risk. Profit generated from tomatoes is very high (88%) and from peanuts is 59%. Thus, sales of peanuts make high returns.

5.3 Returns for the Merchants

The merchant buys *tumbak* either at farm-gates or in El Fasher, in both cases the sales price is around £S100,000 per quintal as Table 4 shows. If he sells in El Fasher to bigger merchants, the price is around £S 140,000 per quintal, i.e., he makes a profit of £S 40,000 which is 40%. The small merchant is at an advantage here because he makes a quick return and can have a quick turnover as he has the money.

Big merchants buy *tumbak* from small merchants at £S140,000 per quintal. They pay different taxes and transport charges to the amount of £S60,000. Total cost becomes £S200,000. Price per quintal of *tumbak* in Khartoum is £S300,000. Therefore, the big merchant makes a profit of £S100,000 per quintal. This is 50% of his purchase price.

We should take into consideration that the return for the farmer is an average figure and that the commodity itself is very risky. Added to this is the contribution of family labour in production activities of *tumbak*, which is almost 40%. Farmers sell a big part of that produce on credit. They collect their debts after months and years. Therefore, real returns are far less than the total. Therefore, the farmer gets the least returns from *tumbak* followed by the small merchants in NDS. The big merchants in Khartoum get a lion's share of the profit margin. Big merchants are always able to buy large quantities, their turnover is quick and they can have forward linkage by investing in retail shops selling *tumbak*, thus enhancing their profits.

5.4 Returns for the State Government

NDS levies many types of taxes and duties on *tumbak*. These are: *zakat khumus* (fees paid to *Tumbak* Auction Market), excise duty, taxes, El Fasher province fee, El Fasher University fee, *Tumbak* Merchants Union fee, and *Tumbak* Research Centre fee. The total tax paid for one quintal of *tumbak* is around £S12,000. Nevertheless, not all of that goes to NDS. Table 8 below shows *Tumbak* Auction Market income in 1966.

Table 8. *Tumbak* Auction Market income in 1996 (S£)

Month	Income
January	11,163,700
February	8,287,237
March	18,164,728
April	25,410,020
May	30,005,575
June	41,943,388
July	32,138,772
August	11,727,080
September	21,928,592
October	26,928,592
November	35,239,427
December	41,603,676
Total	304,540,787

SOURCE: El Fasher *Tumbak* Auction Market.

Total income to the *Tumbak* Auction Market is more than £S300 million. However, this is actually far less than the real collected money by NDS. This is because most of the produce was not registered in the Auction Market, as mentioned earlier. Again, by comparing the flows of income with the flows of *tumbak* to the Auction Market (Table 1), it is observed that there is no consistency. For example, while the amount registered in March 1996 was more than the amount registered in February 1996, income to the Auction Market in March was more than double the income in February 1996. This means that a large quantity goes directly to the stores around the Auction Market without registration.

Therefore, we interviewed three well-known merchants who buy *tumbak* from El Fasher and transport it to Khartoum. They have wholesale dealings as well as retail shops in Khartoum. The average money paid to NDS in 1996 as fees, *zakat*, *khumus*, excise duties, taxes, etc. was £S100 million. There are about 20 merchants who have similar dealings in *tumbak* from NDS, i.e., estimated income to NDS is about S£2000 million per year.

In Khartoum, some taxes and fees are paid. These are licensing fees, taxes and *zakat* services (e.g., sewages and cleaning). These were estimated at S£2.5 million per year for one merchant. There are about 100 merchants who pay such amount, i.e., this makes a total of S£250 million return to Khartoum State per year. In 1995, some merchants of *tumbak* in Khartoum organized themselves into a union of *tumbak* merchants. The union was registered in 1998. It consists of 15 members. The main objectives of the union are to: help in solving problems facing *tumbak* merchants, help in solving marketing and storage problems and participate in research and development of *tumbak*.

Tumbak generates returns for many groups of people. Most important in these groups are lorry owners who transport the commodity to El Fasher and Khartoum, owners of manufacturing mills in El Fasher, workers who are involved in loading and unloading and owners of big stores. In this way, *tumbak* contributes significantly to the national income through many sectors: agriculture, manufacturing, trade, services, etc.

6. CONCLUSIONS

The study of *tumbak* production and marketing shows that farmers are very keen to grow *tumbak* in Abu Sakeen area. Sales returns on *tumbak* are very high compared to those on onion. This encourages the farmers to continue producing *tumbak*. Nevertheless, production depends heavily on family labour, which is not included as a cost item. Thus, the farmer may be left with very low profits, if family labour cost is included. The situation is exacerbated by the need of the farmer for cash to pay for his daily expenses. Because there are no other sources of income, he relies on advance sales of his *tumbak* to secure cash. Therefore, he is tied to the merchants and is compelled to sell at low prices. A small number of farmers could afford production costs and were able to sell for cash. However, merchants do not always make all their payments in cash. They postpone payment for long periods to the extent that real returns for the farmer are severely depreciated due to inflation.

Onion is the second cash crop in Abu Sakeen Valley. Its returns are very low because of the limited demand. However, sales are always made in cash, which enables the farmer to meet his urgent expenses. Furthermore,

farmers consume about half of their produce, quite a large amount that would have been purchased had they not grown it. This fact is also true for other vegetables like tomatoes, okra, etc. Peanuts have recently been introduced into the valley. Although some cases show better returns than *tumbak*, more studies are needed to confirm these findings.

Small merchants who buy *tumbak* from the farmer at farm-gates or in El Fasher get high returns because they could afford to buy large quantities. However, big merchants get higher profit margins than the small merchants do. They even get more because they always have forward linkages and retail *tumbak* shops where they distribute directly to the final user in the commodity.

The North Darfur State Government levies taxes, *zakat*, excise duties, *khumus*, etc. on *tumbak*. This enables NDS to get the biggest chunk of *tumbak* returns. Khartoum State also levies some taxes and fees, which enables it to get quite a sizeable amount of money from the big merchants in Khartoum.

We can conclude that the farmer puts the biggest labour effort in *tumbak* but he gets the least out of those who benefit. This is because he has no income to meet his daily expenses let alone to pay for production and marketing costs. Therefore, he clings through the system of *shail* or *abutiles* to the merchants, who benefit more. This is so while Kafoat and Abu Sakeen (and other *tumbak* producing areas) are very backward in terms of education, health and other services. Both the merchants and the state governments should shoulder their responsibilities towards the farmers and towards *tumbak* producing centres. This is even more justified because *tumbak* contributes to the national economy as it pays good return to the state government in North Darfur and in Khartoum and to the merchants. Its contribution is not only for agriculture and trade sectors but also for manufacturing and services.

Therefore, more research is needed to improve this important economic activity. How can farmers be organized to obtain finance, to establish efficient production systems and marketing channels for *tumbak* and other cash crops they are producing? How can they get efficient services to reimburse their efforts and contribution to the state and national economy?

This calls for an ambitious research project, which should cover the five areas that produce *tumbak* as well as the market centres in El Fasher and Khartoum.

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