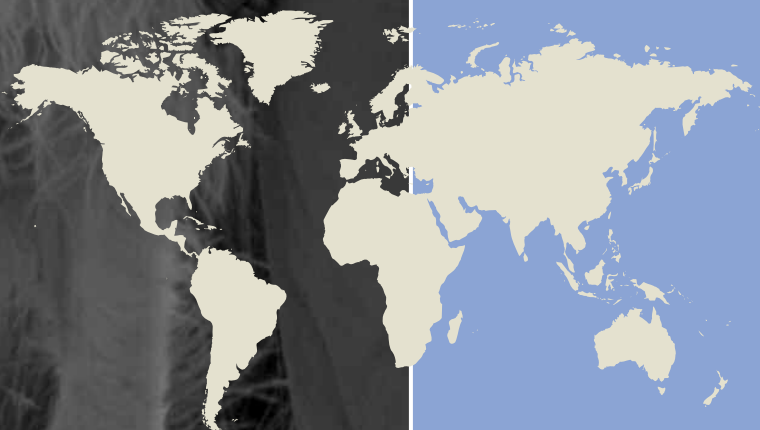




Mobile livelihoods, patchy
resources & shifting rights:
approaching pastoral
territories

An issues paper



INTERNATIONAL
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The ILC “Knowledge for Change” series

In this series:

1. *Common Ground – the challenges to developing Inclusive Land Policies: Experiences of the International Land Coalition in promoting Land Alliance for National Development*
2. *Mobile livelihoods, patchy resources & shifting rights: approaching pastoral territories – an issues paper*
3. *Securing access to common property resources in a 'modernizing' world: Outcomes from 41 Case Studies on Common Property Regimes from Asia, Africa, Europe and Latin America*
4. *Working at the boundaries: International Land Coalition's engagement with the land rights of indigenous peoples and their neighbours*

This publication brings together the inputs made by over 120 participants in a web-based forum to consider how to strengthen rights of nomadic and pastoralist groups to land and natural resources. While the publication expresses the lessons learnt by the ILC, the views and case studies are those of the authors. The opinions and assessments made herein do not necessarily reflect the views of the civil-society, governmental, bilateral or intergovernmental organisations associated to these activities or to the International Land Coalition.

The International Land Coalition is a global alliance of civil society and intergovernmental organisations working together to promote secure and equitable access to land for poor men and women through advocacy, dialogue and capacity-building. The goal of the International Land Coalition is that governments uphold the rights of poor men and women in the design and implementation of land policies and laws.

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Issues Paper

ACKNOWLEDGEMENTS AND CONTACTS



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**World Initiative for
Sustainable Pastoralism**

The **World Initiative for Sustainable Pastoralism (WISP)** is a global initiative that supports the empowerment of pastoralists to sustainably manage drylands resources. WISP enables pastoralists to demonstrate that their land use and production system is an effective and efficient way of harnessing the natural resources of the world's drylands.



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The International Land Coalition would appreciate receiving copies of any publication that uses this publication as a source

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Table of Contents

ACRONYMS	vi
STATEMENT BY ILC DIRECTOR	vii
FOREWORD	viii
INTRODUCTION	1
I Global pastoralism	2
Box 1 – A note from the first Global Pastoralists Gathering	3
II Patchy resources	5
Box 2 – The Karo and Hamar groups: access rights and bond friendship	6
III Mobile livelihoods	7
Box 3 – The Spanish Cañadas	8
Box 4 – The Dana Declaration on Mobile Peoples 2002	9
IV Fuzzy arrangements	10
Table 1 – Typology of customary property rights and management regimes	11
Box 5 – Why do the Maasai split up group ranches?	12
Box 6 – No tragedy of the commons in highland Bolivia	13
Table 2 – Pastoral environments and livelihood strategies	13
V Shifting rights	14
VI Invisible hands, visible grabs	17
Box 7 – Ending the Contrôle Bedouin in the Syrian Badia	17
Box 8 – Hectic reforms on the Tibetan plateau	18
Box 9 – United Nations approach to rangelands	19
Box 10 – The <i>Orans</i> of Rajasthan	20
Box 11 – Pastoral comparative advantages	21
Box 12 – Troubled water	22
Table 3 – SWOT Analysis of the Roles of Actors in Mitigating conflicts	23
VII Theoretical frameworks	24
Box 13 – The costs of pastoral administration	24
VIII Regional experiences	27
Table 4 – Regional zonation of pastoral systems	27
The Pastoral Code of West Africa	28
Box 14 – Best practice from Mauritania	30
Pastoral associations in Asia	31
Box 15 – The Iranian White Revolution	32
Box 16 – Mongolia: back to the future	33
Eco-tourism activities in the Mediterranean Basin	34
Box 17 – Pastoralists and the environment	35
IX Herders' footsteps	37
X Conclusions	42
Table 5 – The three stages of development interventions in pastoral areas	46
Box 18 – Livestock Early Warning Systems	46
Pastoralism links	47
References	48

Glossary of Acronyms

ALIVE	Partnership for Livestock Development, Poverty Alleviation and Sustainable Growth (FAO)	ICIMOD	International Centre for Integrated Mountain Development
CAPRI	Collective Action and Property Rights	IFPRI	International Food Policy Research Institute
CGIAR	Consultative Group on International Agricultural Research	IIED	International Institute for Environment and Development
CILSS	Comité Permanent Inter-Etats de Lutte contre la Secheresse	ILC	International Land Coalition
DANIDA	Danish International Development Agency	IPAS	Institute of Pastoral and Agro-pastoral Studies
ECOWAS	Economic Community of West African States	IUCN	World Conservation Union
FAR	Fuzzy Access Rights	NGO	Non-governmental organisation
GDP	Gross National Product	PCI	Pastoralist Communications Initiative
GPG	Global Pastoralists Gathering	UNESCO	United Nations Educational, Scientific and Cultural Organisation
GTZ	Deutsche Gesellschaft für Technische Zusammenarbeit	WISP	World Initiative for Sustainable Pastoralism
IBAR	Inter-African Bureau for Animal Resources	WWF	World Wildlife Fund

Preface by ILC Director

In the past few decades, the loss in access to land for pastoralists has been greater than for almost any other resource users, seriously compromising their livelihood options. This has provoked the International Land Coalition to strengthen its partnerships with pastoralist organisations at both national and global levels to specifically promote the rights of access to land for pastoralist women and men.

Amidst the erosion of land rights of pastoralists, there are reasons for optimism. One reason is that the tide has started turning in the last decade towards a greater appreciation for pastoralist modes of production. For example, the UN Convention on Desertification, in 1977, identified pastoralism as a cause of desertification, describing it to be a system of land management that would lead to further degradation through overstocking and social conflicts. This causality was repeated by UNEP in 1984 at the UN Conference on Environment and Development. However, in 1994, the UNCCD reversed its position and, instead, defended pastoralism as a solution to

reversing degradation and improving livelihoods in the drylands.

I am proud to offer this paper as part of the contribution of ILC members and partners to better understand the challenges and possible avenues for securing access to land by pastoralists. It was developed with input by over 120 pastoralists, researchers, practitioners and policy makers from a large number of countries. In particular, I would like to thank WISP, the World Initiative on Sustainable Pastoralism, for their close collaboration on its development. ILC commits itself to continuing to work together with members and partners not only to deepen knowledge on pastoralist land rights, but to work towards facilitating the actual achievement of such rights.

Bruce H. Moore
Director

Foreword

This working document is the result of an articulated process that aimed at addressing the rights of pastoral groups to land within a holistic perspective. An initial draft of the paper was prepared and posted on the Web at the end of 2005 to spur a discussion on this critical theme. A Web-mediated Discussion Group was consequently developed to challenge the assumptions and the analyses in the paper. Comments, suggestions, criticisms and case studies provided by the 123 discussion participants allowed broader ownership of the International Land Coalition position, in order to develop appropriate indications for policy recommendations and eventually an action plan for the Coalition.

The discussion hinged around four weekly topics, which were presented through questions by the moderators: management and related resource access in a more informed and appropriate way. The document develops from an overall description of pastoral system, and analyses the rationale behind mobility and the related rights concerning access to and control of resources. Theoretical frameworks as well as regional experiences are thereafter depicted to define the historical and geographical dimensions of the debate. Finally, recommendations

- Topic 1: Dynamics within pastoralist societies: generation, gender and classes
- Topic 2: Changes in available resources, environment and conflicts
- Topic 3: The role of the state and interaction with pastoralist-related civil society groups
- Topic 4: Policy recommendations

The challenge was to maintain a global analytical framework, while also providing more specific analysis at regional levels and utilizing specific and localized experiences to enrich the document by keeping the for appropriate policy options and development investments are provided in order to reverse current critical trends in pastoral areas; more specifically, indications for ILC action are considered.

human touch throughout the work. In fact, it was mainly in the form of case studies or personal experiences that most discussion group participants sent their contribution. The paper and the discussion have been managed in English, French and Spanish, so as to enhance broad participation from different regions. This objective was achieved, as people from all continents and regions participated in the process. One lesson learned was that Arabic should also be included for future actions on pastoral matters. Four regional focal points had also been selected to build regional perspectives on the issues discussed.

This participatory document seeks to provide a background analysis in order for policy makers at diverse levels to re-think pastoralism and mobility, in order for them to make decisions about rangeland

Introduction

Pastoral groups inhabit areas where constraining soil, rainfall and temperature conditions provide limited effective options for sustainable land use, other than mobile livestock rearing. Agro-ecological conditions and physical characteristics of range resources are critical in shaping the socio-economic livelihood patterns of pastoral communities, as they are characterized by highly variable and unpredictable resource endowment. Climatic variability increases with the degree of aridity,¹ thus increasing the dependency of pastoral groups upon their natural resource base. As a result, there are strong commonalities in livelihood strategies of pastoral groups inhabiting and exploiting distant and diverse drylands or highlands of the world (from Sub-Saharan African dry lowlands to cold Asian plateaus; from the tropical savanna to the cold northern steppe). This feature is much less evident among other population groups across the globe.

Despite the fact that adequate resource access determines the sustainability of pastoralism as a form of production and a way of life, land is a factor over which

pastoralists still have limited control. This is the result of a series of misunderstandings that have given pastoralists a 'bad name' for quite some time. In fact, a very similar attitude has characterized the perception of pastoralism in the different corners of the globe, from colonial states to post-colonial bureaucracies, from Western to Soviet states, from United Nations agencies to concerned non-governmental organizations (NGOs). As has occurred in many other so-called indigenous cultures, pastoralists were considered as irrational, so their resource management system and lifestyle were to be re-built within a modern framework for development. Most of the literature during the last century regarded pastoralism as a fading and doomed lifestyle, condemned by its inability to produce efficiently, to protect and regenerate its natural resource base, and even the incapacity to maintain social order and peace. In time, external encroachment on range resources and misconceptions of pastoral livelihood strategies led to erroneous interventions that contributed to undermining the sustainability of

local resource management, thus increasing the vulnerability of herding communities.

The financial, environmental and social costs involved in past wrong investments and policies have led to the definition of a set of new paradigms and innovative approaches. Currently, pastoral resource management is increasingly acknowledged as sustainable (indeed the most sustainable in most arid and semi-arid lands), and the rights of herding communities to land are recognized as a primary element of appropriate pastoral development and rangeland management. While sustainable pastoralism is back on policy agendas, investments and laws often fail to meet expectations for coping with the needs of pastoral mobility and flexibility in resource use. Through this participatory work, which involved over 120 people, the International Land Coalition (ILC) would like to set a process that contributes to supporting the development of appropriate decision making concerning access to natural resources in pastoral areas.

¹ Niamir-Fuller, 1999a

I Global pastoralism

Pastoral systems are important to global society as they support herders' subsistence, provide for large quantities of food and non-food products that play a major role in ensuring local food security, and contribute to the national economies of poor countries.

These contributions materialize on marginal lands where mobile livestock rearing has a natural comparative advantage and other uses for the land have shown to be ineffective.

While the economies of many African countries depend to a large degree on animal production, that dependence is exceptionally high in Botswana, Chad, Mali, Mauritania, Niger, Somalia and Sudan. In these countries the value of livestock production may be as high as one-half of agricultural gross domestic product (GDP), and much of export earnings derives from livestock.² In the Horn of Africa, pastoralism provides an average of 20 to 30 per cent of the regional GDP, and contributes between 10-20 per cent of total GDP for West African countries just above the Saharan fringes.³ Apart from African regions, an increased and a renewed interest in pastoral production systems is reported in the Mediterranean, and western and central Asian regions.⁴ Through its consistent sub- and inter-regional trade, it thus represents an important economic force for developing these traditionally poor regions.

Extensive pastoral production occurs in some 25 per cent of the global land area, from the drylands of Africa (66 percent of the total continent land area) and the Arabian Peninsula, to the highlands of Asia and Latin America. It provides ten per cent of the world's meat production, and supports some 200 million pastoral households and herds of nearly a billion head of camel, cattle and smaller livestock, about one third populating the ranges of Sub-Saharan Africa (FAO, 2001).⁵ While the demise of pastoral livelihoods has been regularly predicted, there is evidence that in many areas of the world pastoralism represents the most important livelihood strategy of a growing number of households.⁶ In fact, there are indications that in many countries overall pastoral populations have increased, although shrinking rangelands and worsening land quality have reduced the economic viability of pastoral systems. Not only is the number of pastoralists increasing globally, but exchanges with other societal groups are growing continuously, and more sedentary societies are increasingly drawing upon pastoral concepts and ideas

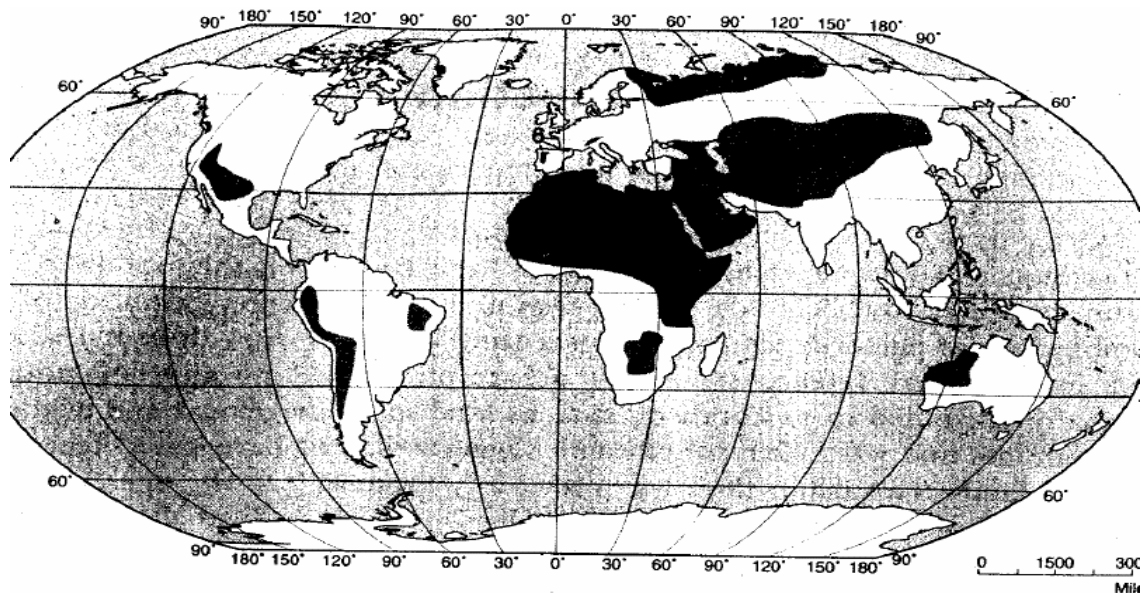
² McIntire, World Bank, 1993

³ Alive, 2006

⁴ As an example in case livestock sector contributes 32% GDP of the GDP of Mongolia, and 32% of its export value,

⁵ Global statistics need nevertheless careful handling and sceptical reasoning, as pointed out by Dobie (2001).

⁶ Contribution from T. Sommerhalter, Programme Lucop-TAN, Antenne Zone Pastoral, Niger



Picture 1 – Regions inhabited by pastoralists (WISP, 2004)

Although herders are scattered globally, critical trends threatening their sustainable development are similar in the different regions they inhabit. Pastoral land tenure and management systems are increasingly challenged by encroaching interests, spanning from the advance of the agricultural frontier, to oil and mineral extraction, dam building, tourism-driven conservation policies, and to Western notions of private property and resource ownership. Changes in land tenure by central governments combined with related uncertainties regarding resource access have been major sources of deprivation, vulnerability and insecurity, as they affect both the availability of and access to the natural pastoral resource.⁷ It is not surprising that the issue of land rights is the main concern of pastoralists the world over (as evident in the conclusions of the Global Pastoralists Gathering held in Turmi, Ethiopia in 2005).

BOX 1 – A note from the first Global Pastoralists Gathering⁸

As discussed at the Global Pastoralists Gathering in Turmi (2005), the main concern for all pastoralists relates to the rights to and encroachment of their lands, perpetuated by external, non-pastoral groups and interests. This problem is a long-standing one (recall the Cain and Abel myth) and in Turmi we listened to Maasai herders recalling the ways in which British colonizers pushed them out of the highlands. We learned how the Alpacas had to move to the mountains when the Spanish 'conquistadores' took control of coastal areas. And we were told of the dispossessed Bedouins in the Holy Land. Any effort to properly address and support pastoral livelihoods has to start from this crucial factor – access to land is critical to ensure pastoralists' subsistence and sustainable development.⁹

⁷ Nori et al., 2005

⁸ (Ethiopia - Turmi, 2005)

⁹ Author's note to the first Global Pastoralists Gathering event organised by UNOCHA-Pastoralists Communication Initiative and UNDP, Turmi, Ethiopia. January 2005. More references at: <http://www.ids.ac.uk/ids/news/Pastoralists.html>

Pastoralists are those communities that rely on mobile livestock rearing as a livelihood¹⁰ strategy for human survival and socio-economic development upon marginal arid and semi-arid lands. Due to low-average productivity and great variability in range productivity, animal mobility enables spreading risk and optimizes productivity by exploiting seasonal pastures and water. Pastoral and agro-pastoral communities differ from other rural groups by the specific relevance of livestock-based activities and mobility patterns for their livelihoods. In contrast to sedentary farmers and breeders, pastoral herds and flocks (and often households) move through places and seasons, and their livestock forage is mainly natural as opposed to cultivated fodders and pastures. Pastoral resource management is based on a complex set of temporary or semi-permanent claims on pasture, water and other resources, as well as on the underlying principles of flexibility and reciprocity. The resource base of pastoralists – land – is therefore not a fixed, individually owned capital, but rather a flexible asset with specific use and access mechanisms.¹¹

With the exception of several countries (Somalia and Mongolia are the best known cases), pastoralists normally represent a minority of the national population in most countries, inhabiting vast areas of marginal lands in states governed by the peasant majority inhabiting greener areas, where capital cities are regularly based. This is the outcome of a process which has divided and relocated pastoral territories among different countries; herding groups carrying the highest brunt in the definition of national frontiers and boundaries during and after the colonial scramble. Wherever there is straight line on a map, be sure that it is a pastoral area, with the same people living on and moving across the two sides (such as the Saharawi and the Touareg in the Sahara, the Fulani /Peul in the Sahel, the Bedouin communities and the Kurds in the Near East, and the Somalis, the Borana, the Afar and the Karimajong in the Horn of Africa).

This international redefinition of pastoral territories carries with it a number of jurisdictional and political issues. Interstate disputes often involve pastoral lands and people because of their frontier location, with consequent instrumental political use, militarization of pastoral communities and related consequences upon their livelihoods. Transboundary movement of livestock and herders are greatly affected when tensions between two countries heighten, such as recent cases along the India-Pakistani and the Ethiopian-Eritrean borders demonstrate.¹² The same applies to conflict-related refugee flows, which often move through, locate upon, and make intense use of, fragile and contested rangelands.

¹⁰ We refer to livelihoods as “the capabilities, assets (including both social and material assets) and activities required for a means of living. A livelihood is sustainable when it can cope with and recover from stresses and shocks and maintain or enhance its capabilities and assets both now and in the future while not undermining the natural resource base” (Carney, 1999).

¹¹ Sandford & Habtu, 2000; Thebaud & Batterbury, 2001; Nori et al., 2005

¹² It is reported that in the latest confrontation with Ethiopian army and militia, about 70% of the Eritrean national herd was raided, at the expense of bordering pastoral groups (DFID, 2000).

PATCHY RESOURCES

Range resources are heterogeneous and dispersed (patchy), tied with seasonal patterns (temporary), differing through time (variable) and characterized by overall erratic climatic patterns (unpredictable). The net productivity of arid ranges is low and the animal and plant populations that it can sustain fluctuate unpredictably, depending on a number of variables – water availability, soil quality, vegetation composition, fire events, disease outbreaks – among which rainfall patterns play a major role. Similar dynamics characterize highland ranges (e.g. Central Asia and South America), where low temperatures and prolonged snowfalls have a marked impact on land use. Since climatic variability increases in arid environments, pastoral areas are also characterised by a relevant degree of livelihood risk; as an average, there is an extensive climatic extreme every decade in most pastoral areas of Sub-Saharan Africa (prolonged drought) and Central Asia (prolonged frost, or *dzud*). Occasional events of minor intensity take place with a higher frequency.

Due to high relative variability of rainfall – in amount, timing and location – within and between years, access to different eco-zones through time is therefore vital to ensure continuous productivity for pastoralists. The interdependence of arid lands with other external or adjacent ecosystems (such as wetlands) creates opportunities for resource extraction across several different and complementary ecological niches. Pastoral herds can exist throughout most of the year on arid lands, but they need wetter areas to survive during the dry seasons; access to water enables the use of surrounding grazing areas during droughts; access to salty soils, medicinal plants and wild fruits is important during certain times of the year; routes to access urban areas, markets or other groups are relevant in contingency planning.

Furthermore, the self-sufficiency of pastoral economies decreases with growing population pressure. Pastoralists all over the world are driven towards establishing and developing reciprocal and interdependent relations with sedentary communities¹³ (farmers, urban dwellers, etc.) in order to benefit from complementary production and generally favourable terms of trade, thus integrating their livelihoods into the wider societal framework. These exchanges are also relevant for the livelihood of more sedentary farming communities, who will similarly benefit from the environmental wealth of well-managed pastoral areas, as they provide for alternate food stocks (e.g. edible nuts, roots) that can be drawn upon in times of food crisis.

¹³ Marx, 1996; Chatty 1994

BOX 2 - The Karo and Hamar groups: access rights and bond friendship¹⁴

Bond friendship can be discussed with respect to the Karo and Hamar pastoral groups. The Karo and Hamar groups inhabit the south-western tip of Ethiopia bordering Kenya. The Hamar inhabit a mountainous area that is free of tse-tse fly infestation, while the Karo live in the lowlands, where tse-tse flies are widespread. On the other hand, the Karo area is suitable for the cultivation of sorghum. The Karo gain access rights to grazing lands in the Hamar highlands through the institutions bond friendship and reciprocal gift exchange. The system works as follows: during the dry season, the Karo people keep their cattle with bond friends in the Hamar area. In exchange for the grazing land and their labour, the Hamar households keep most of the butter and milk for themselves.

The Karo families regularly visit their bond friends in the Hamar area. On their way, they engage in marketing activities. They sell products, like honey, and buy goods, like coffee and bullets. Upon arrival at a bond friend's home, the Karo families inspect their cattle and stay at their host's house for days and even weeks. The host often gives his guest sheep and goat. In addition to the gift, the Karo family takes home some butter produced by its own cows kept with the Hamar family. The Hamar family, in turn, visits its bond friend in the Karo area and returns home with sorghum obtained as a gift from the Karo family. Resource-based conflicts often flare up between the Karo and Hamar people. However, conflicts rarely go out of control because the two peoples have developed mechanisms to manage disputes. Whenever a conflict arises, elders from both sides convene and settle the issue. As usual, the reconciliation process is part of an elaborate family accompanied by the ritual of goat slaughtering.

¹⁴ Petros, 2000, quoted in Dajene, 2004

III Mobile livelihoods

In this context, mobile livestock rearing, which is able to convert range grasslands into nutritious and useful products, results in the most economically viable and environmentally sound option to exploit range resources.

Livestock represents the vital 'technology' that interfaces between range resources and people's livelihood, enabling storage and transportation of food through places and seasons. Herd *diversification* – a mix of large and small ruminants, grazers and/or browsers – is important to minimize risk exposure while providing subsistence needs through optimal utilization of available resources. Herd *divisibility* is also important for the same reason. Splitting animals across a number of widely dispersed herds reduces risk, while different functional sub-herds (e.g. milking and fattening ones) allow for the manipulation of different animals' ecological potentials, according to capacities and needs. In a way, livestock reflects the five assets of the Sustainable Livelihoods framework (refer also to Morton and Meadows, 2000).

Mobility provides the best strategy to manage low net productivity, unpredictability and risk on arid and semi-arid lands. As rainfall and temperature patterns result in marked spatial and temporal variations in livestock-grazing resources, seasonal movements are essential for pastoralists. Mobility depends on temporarily utilized lands, knowledge of ecosystem productivity potentials and constraints, and capacity to negotiate or enforce access to key range resources, primarily pasture, water sources and migratory corridors. Mobility can be:

- **vertical**, with different seasonal altitudinal areas – such as with the Kazaks of Eurasia, who keep their livestock at lower elevations during the winter, move to the foothills in the spring, and migrate to the high mountain pastures during the summer. Moving their animals at different times of the year avoids overgrazing and enables them to raise considerably more livestock than they could if they chose not to migrate;¹⁵
- **horizontal**, through different zones, often linked to water access – such as the north-south transhumant movements in the Sahelian zone.

In the Abruzzi (Italy), migration used to be both vertical and horizontal depending on seasons; nowadays mainly the vertical transhumance remains in place. A distinction can also be made between regular movements and emergency movements during critical times (e.g. drought, conflict). Patterns of mobility range from pure nomadism (opportunistic, no fixed base), through various forms of transhumance (set migratory routes on a seasonal basis), to degrees of agro-pastoralism (with seasonal attachment to crop production); each demanding different involvement of household and herd members. In the Maghreb alone, more than a dozen systems of pastoral land use are reported.¹⁶

¹⁵ Ferro, 2001

¹⁶ Bourbouze, 1999

BOX 3 – The Spanish *Cañadas*¹⁷

In Spain 30,000 people migrate every year with 1.5 million animals. They even pass through park systems in urban centres as they travel between winter and summer pastures to rear livestock and produce milk, cheese, wool and meat. Isabel Bermejo López-Muñiz is a herder, a lobbyist and a scholar of pastoralism in Europe. She explains the history. “The first legislation protecting pastoralist rights in Spain is very old, dating back to 1273 when King Alfonso the Wise passed a law protecting *cañadas* (drovers' roads) used by transhumant shepherds when moving their herds. *Cañadas* are at least 75 metres wide and provide green pastures for the sheep as they move southwards and northwards from the plains to the mountains and back, along a network that is 125,000 kilometres long. They represent a total of 400,000 hectares of common grazing land reserved for transhumant herds throughout Spain.”

In 1974 the law was changed, allowing for privatization of *cañadas* if they were deemed ‘unnecessary’, and in the early 1990s a new proposal was discussed that weakened the law even more. By then only a few pastoralists maintained the traditional transhumance on foot, although many still moved their herds seasonally by train or lorry in search of green pastures and water. The encroachment and lack of maintenance of *cañadas* made traditional transhumance on foot increasingly difficult, and the prevailing view, even among pastoralists themselves, in the early 1990s was that traditional transhumance was a thing of the past and its maintenance unworkable. On the other hand, the ecological, cultural and environmental value of transhumance was recognized by scholars and an increasing number of experts in ecology. So it was not pastoralists themselves, but environmental organisations like Ecologistas en Acción and Fundación Española para el Medio Ambiente that campaigned for the protection of *cañadas* and lobbied the Spanish government not to weaken, but rather to strengthen, legislation protecting this common heritage. In 1995 a new law was passed protecting the *cañadas* and recognizing pastoralists' preferential rights to use them.

Mobility is therefore an ecological as well as an economic necessity, involving a number of social features. Apart from allowing the best use of range resources, it is also a way to avoid disease vectors in some areas (e.g. tse-tse flies), to enhance exchanges with other land users (crop residues against animal manure), to access different market opportunities (e.g. to sell dairy surpluses or purchase staples or animal drugs) as well as to join with kin for a seasonal festivity, acquire or share information, search for complementary sources of livelihood, etc.

Through mobility, pastoralists ensure that localized pressure over resources is reduced, as only a limited number of animals are allowed to graze a given pasture land, thus making pasture restoration possible at times. Furthermore, by splitting herds into different groups and keeping them apart, pastoralists minimize risks arising from animal diseases. The likelihood of the occurrences of disease increases with increased concentration of animals in one place.

¹⁷ Source: Global Pastoralist Gathering, Turmi 2005

BOX 4 - The Dana Declaration on Mobile Peoples, 2002¹⁸

"[...] The linked pressures of human population dynamics, unsustainable consumption patterns, climate change and global and national economic forces threaten both the conservation of biological resources and the livelihoods of many indigenous and traditional peoples. In particular, mobile peoples now find themselves constrained by forces beyond their control, putting them at a special disadvantage. Mobile peoples are discriminated against. Their rights, including rights of access to natural resources, are often denied and conventional conservation practices insufficiently address their concerns. These factors, together with the pace of global change, undermine their lifestyles, reduce their ability to live in harmony with nature and threaten their very existence as distinct peoples."

Apart from the natural capital provided through rangelands, mobility critically hinges upon technical as well as socio-political factors, as both human and social capitals are critical in ensuring mobility for pastoral communities.

- The pastoral **human capital** is characterized by an in-depth knowledge of complex rangeland agro-ecological dynamics, critical in detecting resource availability to ensure livelihood strategies and coping mechanisms. Pastoralists' indigenous technical knowledge includes familiarity with patchy range resources and understanding erratic climate patterns – both of which are relevant in tracking environmental conditions – together with an intimacy with livestock physiology and productivity.
- Pastoralists' **social capital** includes cultural and religious mores and values, social norms, duties and responsibilities to kinship bonds, and conflict management mechanisms. Through the principle of reciprocity¹⁹ in user rights, these factors play a critical role in ensuring access to different range resources in times of need as well as resolving disputes during periods of stress.

These two levels are closely intertwined, as local socio-political institutions provide the framework through which indigenous technical knowledge is translated into collective action.²⁰ Mobility is not just about herds moving 'where'; it is also about managing the 'where' so that herds can move.²¹

¹⁸ (Source: <http://www.iucn.org/themes/ceesp/dana.htm>)

¹⁹ *Reciprocity* is the medium through which interdependence among individuals and groups is established and maintained so as to spur informal negotiation rather than war, and mechanisms and incentives are in place to not violate rules (e.g. revenge) (Niamir-Fuller, 1999).

²⁰ Niamir-Fuller, 1999

²¹ Roe, *et al.*

IV Fuzzy arrangements

There are clear relationships between the agro-ecological conditions of an area and the societal setting that develops upon those, as structures regulating resource access, social organization and governance systems depend to a large extent on the local natural resource endowment. Often, the more variable the resource the more flexible are the property rights that develop over it.²² Examples from northern and southern sub-Saharan areas and/or from higher and lower lands illustrate that social structures accompanying the shift from nomadic herding to rainfed agricultural systems vary with the degree of aridity (and related unpredictability); authority and hierarchical structures become tighter where resources are more abundant and geographically concentrated. In the drier ecosystems, there is more incentive to manage the natural resource communally, as common property regimes provides the best framework to guarantee optimal resource use and reduce levels of vulnerability.²³ Economic and social aspects are accounted for in common property regimes, so as to enable effective management of a resource where it is difficult to exclude others, to maintain flexible responses to drought and to ensure equitable access for all members of the community (Hazell, 2001).

Coping with this complexity presupposes much organizational and spatial flexibility as well as specialization across communities and within the household and the herds themselves (Bonte, 1981). Not only do households constantly redistribute themselves over the terrain, in response to climatic fluctuations and the needs of herd management, but membership of pastoral households, too, is continually changing as labour is allocated and reallocated between management units (Dahl and Hjort, 1979). Different household members or communities specialize in different aspects of livestock and environmental management.²⁴ Most pastoral women, for example, play a particularly important role in managing animals' health, as well as in administering peacekeeping and maintaining ties.

Mechanisms regulating access to resources must therefore be flexible enough to provide space for the necessary negotiations and arrangements that accommodate different and often overlapping rights. For example:

- rights related to different user groups (individual household, residential communities, clan groupings, ethnic confederation, etc.)
- rights over different resources, whose relevance might change through seasons (dry and wet pastures, water points, forest zones, river banks, transhumance routes, salty soils, buffer zones, cropping areas, etc.).

²² Capri, 2005

²³ Denéve, 1995; Swift, 1996; Niamir-Fuller, 1999. Also refer to Bromley D.W. and Cernea M.M., 1989

²⁴ Contribution from Prof. J. Gefu, Nigeria

TABLE 1 – TYPOLOGY OF CUSTOMARY PROPERTY RIGHTS AND MANAGEMENT REGIMES²⁵

<i>Nested property right</i>	<i>Type of boundary</i>	<i>Management regime</i>
Overlapping territories	Relatively fixed	Tribal council
Buffer zones	Relatively fixed	Tribal council
Customary pastoral territory (home base)	Relatively fixed	Tribal council
Annual grazing area	Extremely fluid	Clan, tribe or sub fractions
Range reserves	Fixed	Clan, tribe or sub fractions
Key sites	Fixed	Clan, tribe or sub fractions
Cropland / special resources	Relatively fixed	Camp, village
Cropland / special resources	Fixed	Individual

As a result, pastoral territories are mosaics of diverse and dynamic sets of mechanisms regulating access to resources. In most pastoral areas several sorts of rights over resources are likely to coexist, from more private (corporate) forms (such as those for non-natural water points related to a specific lineage), to communal areas, to open-access systems; some are usufruct, some leasehold, and some freehold.²⁶ Different options are applied and continuously re-negotiated among the institutions that govern the different groups, with the aim of allowing a quick response or the ‘tracking’ of unpredictable short-term fluctuations in feed or water supply, while applying a longer term strategy that maintains environmental reproduction and viable socio-political relationships.²⁷ What is of relevance to herders is therefore the option to access specific lands/resources at different times of need, rather than the formal control over a sporadically productive piece of land. While critically accounting for the conditions of the resources (which change through time), a major concern is here allocated to the user, as rangeland use patterns have to adapt to herds’ needs.

This complexity goes beyond the concept of communal property towards a more sophisticated type of access right, flexibly defined or ‘fuzzy’. *Fuzzy access rights* (FAR) are mediated through culture-specific institutional mechanisms, formal negotiations and informal arrangements.²⁸ The most comprehensive definition of FAR is formulated by Scoones²⁹ in terms of overlapping claims to resources, shifting assertions of rights and continuous contestation and negotiation of access rules dominating tenure arrangements in uncertain environments. The solution is not to impose particular tenure types on a variable setting; whether these are uniquely communal or private, they are unlikely to work. Instead, the need for flexible tenure arrangement must be recognized. Customary tenure systems operate shared and overlapping forms of tenure rights in such settings, as maintaining strict boundaries is usually untenable. Under FAR, rights are non-exclusive, multiple, asymmetric and, in some cases, time-bound.

This regime does not hide but rather makes explicit the power relationships within and amongst the different groups, which have been embedded in and reshaped by the larger socio-political environment. It should be mentioned that although most pastoral societies have been defined as ‘democratic’ or ‘egalitarian’ (possibly in comparison to other rural societies), social stratification as well as ethnic and gender differentiations have long existed and often represented a main feature of the societal hierarchy, with powerful groups holding a main stake in defining resource access rights. Shifting the attention from community-based organizations towards the socio-political dynamics that regulate pastoral institutions therefore implies a serious consideration of the dynamics of power within society and their implications in defining effective access. In particular, customary practices regarding access to livestock and land used to be especially adverse for women. Women’s ambiguous kinship ties³⁰ put them de-facto out of the corporate units, thus depriving them of basic resource control and inheritance rights. With the roles of men and women being distinct and complementary in pastoral societies, women’s traditional rights are in fact usufruct ones,

²⁵ Niamir-Fuller, 1999:277

²⁶ Ensminger, 1996:130

²⁷ Behnke, 1994; Niamir-Fuller, 1999; Leach et al., 1996b

²⁸ Dejene, 2004. In this paper the definition of ‘communal’ would nevertheless be used to simplify understanding.

²⁹ Scoones, 1994, quoted in Dejene 2004

³⁰ Refer to UNIFEM, 1998

while ultimate control of resources is invested in men. As a result, pastoral women seldom enjoy full rights to access productive resources, but need to continuously negotiate as secondary claimants through male relatives.

The encroachment of outsiders' interests, as well as ideologies, onto pastoral territories has added further elements that contributed to reshaping pastoral patterns of resource management and the related institutional setting. The current situation is often one of an onion-peeled effect, where different systems contributed to reshaping the regimes regulating the ways social actors access, use and derive well-being from environmental resources and services.³¹ This 'legal pluralism' accounts for local cultural norms and colonially imposed rules; formal and informal institutions; customary, statutory and modern legislative frames; influences from religious dictates (e.g. the Sharia influences in most Muslim countries); geo-political dynamics (e.g. land policies developed under the Western or the Soviet model); and degrees of integration within the wider global frame (e.g. the growing market integration of pastoral economies and increasing competition on their resources). Furthermore, practices are further influenced by the specific interests, skills and capacities of different social actors.

Consequently, the situation on the ground is very fragmented and diversified, as ecological variability is reflected in heterogeneous socio-cultural patterns. For example, the extensive movement of north African pastoralists in and out of the Sahara desert towards more northern plains is still a major livelihood strategy in Morocco, of minor relevance in Algeria and no longer exist in Tunisia.³² Bedouin³³ tribes inhabiting the Arabian peninsula have engaged in different relationships with the state in the different countries. Pastoral resource management changes quite consistently amongst the Somali groups inhabiting different sides of the regional boundaries and with different degrees of market integration. Other lessons could be learned from the experiences of Kenyan Maasai and Bolivian Aymara herders.

BOX 5 - Why do the Maasai split up group ranches?³⁴

In south-western Kenya, mobility and common land ownership are fundamental to livestock survival. Still, Maasai ranges were subdivided and privatized, apparently by Maasai herders themselves. How did this happen? After decades of expropriation of Maasai ranges and relocation of herding communities in smaller area 'reserves', in the 1960s the colonial government introduced group ranches to enhance commercialization of Maasai livestock management systems, within the existing framework. Under the Land Act of 1968, land titles were issued to Maasai groups, thus formalizing their collective rights. Every member of a group ranch was deemed to own the land in equal and undivided shares. Group ranches offered the Maasai protection against future land grabbing from outsiders, particularly in the wake of independence and related claims over land. However, calls for subdivision from Maasai pastoralists emerged within a decade.

The outcome of the process was that Maasai ranges were subdivided and their tenure individualized, thus hampering pastoral mobility and appropriate resource utilization, together with their capacity to respond to and cope with climatic variability. A powerful elite could benefit from the land privatization process by grabbing the bigger and/or better endowed lands, while poor herders had little influence over the subdivision process, thus ending up with smaller or lower-quality parcels. The process particularly affected youth and women, who were systematically excluded from the ranch committees' decision-making process, and their concerns were ignored by the ruling institutions. Securing collective land rights therefore proves to be the best option to make efficient as well as equitable use of resources in pastoral areas.

³¹ Leach et al., 1996b

³² Bourbouze, 1999

³³ *Bedu*, meaning an inhabitant of the *Badia*, the large stretch of semi-arid land or desert that comprises nearly 80 per cent of the Arabian land mass

³⁴ Mwangi, 2004. Also refer to the CGIAR Collective Action and Property Rights initiative www.cgiar.capri.org. Anderson and Broch-Due (1996) recall how the process started as a way for British colonizers to regenerate rangelands.

BOX 6 - No tragedy of the commons in highland Bolivia³⁵

Until the 1970s, rights to pasture in highland Bolivia were corporately held by large clusters of communities, traditionally known as *ayllus*, with strict rules of entry and resource management. The Bolivian agricultural reform that had followed the nationalist revolution of the 1950s was the last in a series of blows to the highland pastoral community structure. One of main goals of the reform was to provide peasants with individual title to land, a policy that herders had opposed for decades. Their advocacy to maintain corporate tenure of pastures was invariably seen by the government as an irrational resistance to modernization, or a stubborn attachment to 'primitive' and 'dysfunctional' ways of life. As a result of these policies, in the 1970s herders and the state finally compromised by subdividing the *ayllus* into smaller units (hamlets comprising a group of families), each of which received a land title. Within this structure, the basic laws of indigenous pastoral production remain what they have always been. Land tenure, rules of entry to social groupings, collaborative practices, customary laws and residence patterns are all regulated to ensure that the balance is kept between demographic constraints and the distribution of scarce resources. Culture as such is not so much at stake in the Aymara herders' desire to preserve corporate land tenure as is the need to protect the only instruments that make pastoral production a relevant investment in the harsh mountain environment.

Contingent events in the economy and society also play a role in continuously reshaping the vulnerability context of pastoral groups, and therefore their need and capacity to negotiate or enforce their access to specific resources. Conflict might play a relevant role in this regard, as insecurity could influence effective resource access as well as the implementation of statutory laws and policies.³⁶ Therefore, it is important to recall that all resource rights are always and everywhere the result of continuous social negotiations and that, as a result, they change over time. In pastoral contexts this variability is simply made more explicit, so as to cope with a less predictable environment.

TABLE 2 – PASTORAL ENVIRONMENTS AND LIVELIHOOD STRATEGIES

<i>Range agro-ecology</i>	<i>Pastoral socio-economics</i>
Resource pattern:	Resource management:
Patchy (spatial heterogeneity)	Mobile livestock keeping
Temporary (high seasonality)	Communal tenure rights
Variable (differing through time)	Flexibility and reciprocity
Risk (unpredictable climatic patterns)	Contingency responses

³⁵ Swift, 2004

³⁶ Refer to de Koning, for the Karimojong case (2003)

V Shifting rights

Despite the diversities which have existed in cultural backgrounds and ideological perspectives, there seems to have been little difference in the ways range management and pastoral development have been perceived and approached by encroaching outsiders over time.³⁷ As opposed to previous forms of contact and exchange, western colonialists were not satisfied with the profits from trading in livestock and other range products: they targeted rangelands as a whole. A common feature between different colonial experiences was that lands not continuously occupied and 'properly' exploited (as to the '*mise en valeur*' concept in French colonies) were perceived as 'unproductive' and defined as having no owner, and ended up being classified as State or Crown property. This approach meant that grazing lands and migratory corridors could be parted or foreclosed without consulting, or even informing, local communities.

Garret Hardin's 'tragedy of the commons' exposure in 1968 merely provided a theoretical framework for the prevailing discourse among western politicians, academics and developers. It pointed out in a Malthusian way the economic irrationality of pastoralists fighting over resources and pillaging the natural environment. The argument was that there would be no incentive for a herder to limit the number of animals he puts on the commons, whilst other herders may increase the number of animals. This theory provided a critical benchmark in the creation of a distorted vision about pastoralism, as pastoral resource tenure was mislabelled as open access, and customary institutions regulating communal access and utilization of natural resources were overlooked. Constructing the negative myths of overstocking, desertification and insecurity paved the way to define pastoralism as economically inefficient, ecologically dysfunctional and socially backward.³⁸ Extreme drought in the Sahel and the Horn of Africa during the 1970s and 1980s and increasing conflict in pastoral regions further supported this vision.

Amongst others, Hardin's thesis provided a rationalization for World Bank programmes calling for sweeping privatization of land and commercialization of livestock production.³⁹ This discourse developed along two major lines that addressed the social and natural dimensions of pastoral livelihoods:

- pastoral production systems are not economically efficient
- rangelands are degrading as a result of unregulated access and use.

Within this framework, mobile livelihood patterns and communal resource tenure adopted by pastoralists were identified as major obstacles to pastoralists' socio-economic development, supposedly hampering options for private investments and sustainable resource management.⁴⁰ As an example from Sub-Saharan Africa, where 22 per cent of the land is arid or semi-arid rangeland, development policies have long been biased toward crop agriculture. In the wake of the Green Revolution, international and national agricultural research institutions focused on crop systems

³⁷ Lane, 1998

³⁸ Swift, 1996; 2004. Hagmann, 2006

³⁹ Fratkin, 1997: 241

⁴⁰ Rwabahungu, 2001

and plant breeding. As a result, the customary tenure arrangements that enabled pastoralists to move their livestock from one grazing ground to another fell out of favour.⁴¹

By building upon western land managerial patterns (such as the ranching model), the development framework for pastoral areas hinged upon two major aspects:

- sedentarization of pastoral communities through agricultural pilot projects, primary service provision or forced settlement programmes
- relocation of rangeland tenure rights through nationalization and/or privatization schemes.

It goes without saying that the main objective of these efforts was to control pastoral groups and get hold of their resources. The cases of Botswana⁴² and Kenya might be indicative of the ways policies aiming at privatizing pasture lands and developing commercial livestock rearing have favoured a small, commercial elite group whilst neglecting pastoralist populations and traditional rangeland practices. The same applied to the public investments aimed at producing crops on higher-potential areas, such as cotton state farms in the Lower Awash Valley in Ethiopia or dry cereal farming production expansion in the marginal areas bordering the Fertile Crescent.

The integration of pastoral societies into state structures and of their economies into the market system slowly but inexorably shifted their resource access and utilization patterns.

The social differentiation that results from these societal changes carries consequences in resource allocation and control, contributing to the process of resource privatization, with problems associated with absentee ownership of commercial herds, herding contracts, enclosures of pastures and watering points, transport motorization and various forms of speculation on rural and urban land. Reports are that absentee livestock owners are estimated to own 50 per cent of the Sahelian livestock.⁴³ There are reports from northern Somalia as well as from northern Mali of livestock entrepreneurs digging their own *berkaads* (water points) and fencing good pasture areas for commercial purposes.⁴⁴ Furthermore, patterns of social differentiation are likely to further disrupt traditional social networks and risk-sharing and safety-net mechanisms, which characterize pastoral livelihoods and play important roles in determining resource access and vulnerability levels.

Over time, parts of the pastoral population have migrated into other livelihoods, and often into other areas, in order to lessen human pressures from rangelands.⁴⁵ Net pastoral emigration⁴⁶ represents a strategy to alleviate the impoverishment that is the almost inevitable result of a high natural rate of population growth, stagnant (or shrinking) yields of livestock feed, and shrinking boundaries (a main reason for the 'crisis of pastoralism' in the Horn of Africa which has been growing more and more evident over the last 25 years and is highlighted by the media reports of famine deaths in early 2006).⁴⁷ However, there seems to be reluctance by those interested in the welfare of pastoral people to quantify the extent rate of net emigration or to regard it in a positive light. This migration does carry social costs, but is and has historically been a strategy to diversify the household economy, provide alternative livelihood options and create and/or enhance links with other land use groups – and as such it also implies certain beneficial effects for pastoral societies.

⁴¹ CAPRI, 2004

⁴² Contribution from M. Taylor, Botswana

⁴³ Fafchamps et al. 1996, quoted in Alive 2006

⁴⁴ Author's field experiences

⁴⁵ Also refer to Breman and de Wit, 1993, for the Sub-Saharan Africa region

⁴⁶ Contribution from S. Sandford, UK. This "*net pastoral emigration*"⁴⁶ uses the word "emigration" term not in respect of national or geographical boundaries but in terms of livelihoods; the word "net" indicates that emigration normally exceeds immigration, but cases from Asia indicate that re-migration back into pastoralism is also taking place, thus further complicating the calculation.

⁴⁷ Ibid

Gender and generational relationships are particularly impacted by the reshaping the pastoral societies from within. As reported from all regions, with cases ranging from Uganda to India and Argentina, recent changes in the economic and socio-political conditions affecting pastoral livelihood patterns, trends of migration and food and physical insecurity are giving women more decision-making power.⁴⁸ This not only relates to their traditional roles of leader within the hut or peacemaker between groups, but also to new and developing forms of economic and political agents.⁴⁹ Despite the growing socio-political and economic responsibilities for pastoral women, intensified competition for resources has led them to become increasingly excluded from access to productive assets, thus provoking a worrisome erosion of women's rights. Furthermore, processes affecting either the access to or the conditions of range resource particularly affect pastoral women in terms of livestock productivity as well as access to resources such as fuel wood, traditional wild foods and medicines, with overall harsh consequences upon pastoral households.

While it is acknowledged that there is a serious lack of adequate information about the relationship between pastoral women and land,⁵⁰ policies aiming to protect the rights of pastoral communities should recognize the specific dependence of women and their hardships when land resources are degraded or scarce. Challenges in this case are double, as customary elements often play down efforts being made to acknowledge the critical position of pastoral women vis-à-vis the pastoral resource base.⁵¹

⁴⁸ Contribution from G. Palmili, Argentina

⁴⁹ Pointing, 1995; also refer to the EC-funded Milking Drylands research programme

⁵⁰ Gritli, 1997; Markakis, 2004

⁵¹ Refer to Rugadya, 2005

VI Invisible hands, visible grabs

A combination of 'colonial governance, scientific homogenisation, and simplistic economic theories about the use of the commons'⁵² explains the long history of misguided and failed pastoral development interventions by governments. As pastoralism was perceived as intrinsically self-destructive (Anderson, 1999) colonial systems of governance and natural resource management aimed at eroding and weakening the basis of traditional pastoral livelihood systems, leading to profound changes in power and control structures. Differences and contrasts between diverse groups were also instrumentally exploited by colonial administrations through 'divide and rule' strategies in order to better control local people and resources. The result was to undermine the material foundations of the pastoralist economy and to damage the fabric of their society. Faced with growing external interference and a rising pressure on rich but fragile environments, pastoral societies became increasingly unable to retain control over resources.⁵³

BOX 7 – Ending the *Contrôle Bedouin* in the Syrian Badia⁵⁴

During their initial colonization, the French Mandate power in the Syrian *Badia* established the *Contrôle Bedouin*, a special administrative unit to support traditional Bedouin institutions to autonomously operate law and conflict resolution. This entity was dismissed with the discovery of oil in the region, as the French became concerned with protecting a potentially important international investment. Control over the area was accomplished largely through grants of private ownership of vast swathes of the common tribal grazing areas of the *Badia*, voting rights in Parliament, privileged access to foreign education for the sons of Bedouin leaders, and significant monetary compensation. Much of the tribal leadership was co-opted into the elite urban political scene. Land holdings once held in common were increasingly registered in the names of tribal leaders and converted into farms.

While colonial governance set the path for such discourse, theories of modernization continued to permeate interventions in rangeland management in post-colonial governments; these, inspired by different ideologies, simply continued reproducing policies that aimed at grabbing pastoralists' resources while ignoring their basic subsistence rights. Most post-colonial constitutions specifically refer to sedentarization as the way to develop pastoral areas.⁵⁵ "If the colonizers were guilty of ignoring customary rights generally, the indigenous African officialdom is similarly guilty of ignoring pastoral tenure with the same air of prejudice, indifference, ethnic chauvinism and discrimination."⁵⁶ The state played a major role in this process, by either nationalizing pastoral lands, or by indirectly supporting the interests of non-pastoral actors and groups, through food and land policies favouring settled farmers, urban consumers or market entrepreneurs at the expense of rangeland inhabitants. In India and Sudan, fees were

⁵² Warren, 1995

⁵³ Swift, 1994; Lane & Moorehead, 1994; Lane, 1998

⁵⁴ Chatty, 2006

⁵⁵ Refer to Markakis, 2004

⁵⁶ Tenga, 2004

requested of herders for crossing internal borders for their transhumance. In Nigeria, grazing reserves were established in the 1960s to protect pastoral resources and livelihoods, but only 13 per cent of them have been officially gazetted up to date. The marginalization of pastoral interests in national policies has been a common feature in most countries, and rangeland managerial systems aimed at enhancing livestock productivity for the domestic and export markets, largely ignoring the needs of the herding people. As an example, countries such as Mali and Kenya have recently witnessed the establishment of a Ministry of Livestock with a specific mandate for herding areas, whereas previously there was only the Ministry of Agriculture, whose focus was traditionally on farm production.

This approach also characterized independent state governments that tried to differentiate from the western styles of colonial powers. In the Middle East, the 20th-century ruling elite and the urban middle class have appropriated the vision of British and French Mandate officials, adapting it to the nationalist credo, and have “declared nomadic pastoralism a backward way of life antithetical to social and national development⁵⁷.” Neither the Soviet nor Chinese experiences escaped this fate, as their development policies (from intensive farming to industrial developments) were deeply embedded in western paradigms. Soviet states sought to monopolize and control the extensive ranges that characterize central Asia. With the breakdown of the Union, the system was rapidly liberalized into individual tenure within a market framework. A similar fate is occurring in pastoral territories under Chinese control. The problem of land titling playing the role of ‘the Trojan Horse’ within pastoral livelihoods is also affecting Latin American herding communities.⁵⁸

BOX 8 - Hectic reforms on the Tibetan plateau⁵⁹

The institutional environment of Tibetan herders offers an eloquent example of how policy trends can adversely affect pastoral societies. Traditional Tibetan land tenure and herd management systems were placed under siege in the 1950s when Mao Zedong’s army entered the country and subjected it to Chinese rule. The collectivization period (*Gonshe*) that followed provoked great changes among Tibetan herder societies because while land management had traditionally been communal, livestock were in fact household property. In the early 1980s, as part of the loosening of the communist economy, herds were decollectivized under the Household Responsibility System, making them individual property once more. Ten years later, seasonal grazing lands were also reallocated on an individual basis, once again throwing pastoral systems into turmoil.

Despite being based on a number of shallow, and often unproved, assumptions, for a long time Hardin’s approach has shaped the discourse on pastoralism (in the Foucaultian sense, thus embodying and hiding relations of power, as it proved difficult to bring herding communities under effective control). In a USAID discussion paper on pastoral development projects in Africa’s Sahel, Horowitz wrote: “So many documents, officials, and even scientists repeat the assertion of pastoral responsibility for environmental degradation that the accusation has achieved the status of a fundamental truth, so self-evident a case that marshaling evidence in its behalf is superfluous if not in fact absurd, like trying to satisfy a skeptic that the earth is round or the sun rises in the east.”⁶⁰ Range resources were at stake,

⁵⁷ Mundy and Musallam 2000, quoted in Chatelard, 2005

⁵⁸ Contribution of G. Palmili, Argentina

⁵⁹ ASIA, 2003

⁶⁰ Horowitz 1979: 27, quoted in Ellis, 1994

and the argument of pastoralists being inefficient and incapable of properly managing the ecosystems they insist upon has been instrumental in legitimizing encroachment of external agents that would have made a better use of such resources.⁶¹ Possibly because it supported a number of economic and political interests, this cultural paradigm legitimized 'modernizing' policy practices for pastoral environments, which easily translated from western colonizing societies to those of southern continents, to international development agencies.

BOX 9 – United Nations approach to rangelands

It took many decades for the international community to readdress the problems of pastoral areas, by acknowledging the capacity of local communities to effectively provide for effective management of marginal lands. The United Nations vision towards pastoralists and rangelands represents a clear example. The first Convention on Desertification (UNCOD, Nairobi 1977) identified in pastoral land use the main cause of environmental degradation in marginal lands. This position was reiterated in the United Nations Environment Programme 1984 Governing Council. It was during the 1990s that the United Nations Conference on Environment and Development (UNCED) legitimized the relevance of local communities' knowledge, rights and capacities towards what had been defined as 'sustainable development'. Agenda 21 strongly advocates a combination of government decentralization, devolution to local communities of responsibility for natural resources held as commons, and community participation. In 1994 the United Nations Convention to Combat Desertification (UNCCD) placed a major emphasis on improving the livelihoods of dryland inhabitants as a main measure to achieve its goal.⁶² Nevertheless, despite UNCCD emphasis the right to participation, the provisions of the Convention are weak when it comes to matters concerning access to land.⁶³

Overall the 'modernization' of pastoral management patterns and tenure rights has fuelled rather than resolved development problems of pastoral communities, whose vulnerability has increased while their social and ecological fabrics have been undermined and degraded. On one side, the nationalization process has separated the ownership of land from its use and has de facto created a situation of 'open access', thus legitimizing control by others, whether pastoral or non pastoral.⁶⁴ On the other side, schemes aimed at individualizing rangelands have created a number of problems that have surpassed those they tried to solve.

As experiences from diverse pastoral regions attest, privatization of rangelands may serve little more than as an opportunity for land speculation by a limited number of wealthy citizens, at the expense of poor rural dwellers who have in the past gained their livelihoods from the ability to access such common resources.⁶⁵ The focus of privatization schemes on bound plots and defined individual users is completely misleading from a pastoral resource management basis.

⁶¹ Leach and Mearns, 1996

⁶² Swift 1996; Leach et al., 1996a

⁶³ Drylands Coordination Group Report No. 4

⁶⁴ Leach and Mearns, 1996a; Lane, 1998; Niamir-Fuller, 1999

⁶⁵ Contribution from M. Taylor, Botswana

BOX 10 – The *Orans* of Rajasthan⁶⁶

In Rajasthan, community-managed *Orans* were forests that could vary from 100-400 hundred hectares and provided vital grazing land for livestock, water, minor forest produce, medicinal plants and green cover for the villages they served (Singh, 2005). Together with their contingency relevance, the *Orans* also traditionally allowed the conservation and reproduction of ecologically valuable species; by enhancing biodiversity protection and ecosystem regeneration, the *Orans* play a longer-term role in local livelihoods.

During the 1950s the state divided the *Orans* into 'revenue' and 'forest' land. Parts of these lands were distributed for setting up cultivations, given away to landless people, while other parts were designated as reserve or protected forests, ensuring their regulation under Forest Conservation Acts and Wildlife Conservation Acts. In both cases the people who had for generations nurtured and lived off these lands were now denied any access to them. This action was in violation of the customary rights of the community. In the present situation the communities no longer see themselves as stakeholders and therefore are not interested in protecting these forests. There is a deep sense of grievance at being robbed of a traditional entitlement. Thus, faced with severely depleted grazing lands and water sources, the people have now taken to plundering the groves. Currently, there is great confusion over the legal status of these lands and the related utilization and responsibility patterns.

As the Rajasthan case further demonstrates, the two conventional types of access rights (private property and state ownership) have limited relevance in pastoral environments,⁶⁷ as they do not hold the capacity to account for the complexity and the intricacies of rights and claims that govern pastoral territories. The 'tragedy' discourse formalized by Hardin eventually materialized, as his misdiagnosis translated into legislative policy and misguided decisions that aimed at taking effective control and responsibility of range utilization away from pastoral communities, contributing to increase their ecological and economic vulnerability.

While higher resourced areas (in terms of water or other underground resources such as oil) have often been reaped by members of the skilfully ruling elite, marginal lands were truly converted into free-access areas, where traditional control rights had been abolished and local-level institutional arrangements dissolved, while state control was not effective. The recent downscaling of government regulatory institutions has further loosened rangelands access rights, as seems the case in a number of pastoral areas from the Middle East Badia to Mongolia's Gobi. Land degradation occurring in pastoral regions is more often the result of modernizing policies and interventions that undermine the basis of pastoral resource access and utilization, rather than the outcome of endogenous pastoral developments. Hastily adopted and implemented policies that ignored traditional tenure rights without providing effective alternatives have led to encroachment of other uses on rangelands, increased grazing pressure, accelerated misuse of resources and ultimately land degradation (FAO, 1994).

The tendency to evaluate the economic and biological productivity of pastoral systems based on the European humid temperate biases has led to an underestimation of the economic contribution of pastoral systems, and an over-zealous attempt to change pastoralists' way of life.⁶⁸ Pastoralism as such was never understood and its holistic resource management fragmented in a number of western-biased dichotomies that dismantled rather than recognized its potential. Within this framework, pastoral lands were squeezed in the public-private dichotomy, their utilization into the agriculture-conservation one, their animals in the subsistence-commercial one. The large degree

⁶⁶ KRAPAVIS, 2006. Contribution from A. Singh, NGO Krishi Avam Parishitki Vikas Sansthan, Rajahstan, India

⁶⁷ Contribution from A. Dejene, Ethiopia

⁶⁸ Niamir-Fuller, 1999: 25; Swift, 1991

of failures and negative impacts of such a development approach has induced major rethinking of rangelands management. More integrated rural development approaches have recently developed, the main focus shifting away from livestock production towards a major consideration of overall range resources management and local livelihoods.

BOX 11 – Pastoral comparative advantages⁶⁹

In its Annual Report in 1983, the International Livestock Center for Africa compared the Borana pastoral production system (southern Ethiopia) with a modern cattle ranching system in Kenya (Laikipia) and ranches in the northern territory of Australia. The results of the comparison were surprising:

- The pastoral system seeks to optimize the number of people supported per unit area of land and to offer these people maximum food-supply security.
- The nomadic tradition is a multiple-goal system, where production and consumption of milk are far more important than consumption and sale of meat.
- Compared with ranchers, pastoralists are poor people, not because of low productivity, but because their numbers per unit area are high.
- Pastoralists try to optimize the number of people supported per unit area, whilst ranchers aim at optimum economic returns.
- The Borana system directly supports six to seven people per km² of rangeland, whilst Kenya ranches support no more than 0.5 people/km² and the Australian ranches 0.002 people/km².

It has taken a long time for these socio-economic implications of pastoral resource management to be acknowledged and accounted for in policy making.

Conflict management involves prevention and resolution of possible disputes arising over resource access and competing users and claims, which are fairly constant in pastoral environments characterized by variable and unpredictable resource endowment.⁷⁰ Indications are that the risk of disputes escalating into violent conflict is currently on the increase, thus becoming an element of growing concern for the sustainable development of pastoral livelihoods. No doubt that competition over scarce resources is a triggering element in most cases, but the picture is more complex, as it also relates to issues of governance: it is the failure to negotiate mutual agreements that leads to tensions and confrontations. It does not therefore relate only to resource availability or quality, but also to the effectiveness of local institutional mechanisms as well as the wider political framework. In this sense the weakening of customary institutions brought on by 'modernizing' policies has undermined their authority to sanction abuses and violence within local societies. In this way conflict is less manageable. Once again, the wrong paradigm has exacerbated the problem rather than helped solve it.

A number of cases and contributions by the discussion group attest that:

- tensions can also be generated by an abundance of resources, such as biodiversity, oil and/or mineral resources;
- conflict can be stimulated by cultural factors;

⁶⁹ Hubl, 1985. Similar conclusions have also been reached in Breman and de Wit 1993, de Ridder and Wagenaar 1984.

⁷⁰ For an extensive discussion over pastoralism and conflict, refer to <http://www.iisd.org/natres/security/pastoralism.asp>

- political or personal interests might well resort to violence to secure their interests, such as during elections or to push for a specific agenda;
- increases in the vulnerability of pastoral livelihoods are likely to result in greater risk of conflict;
- demarcation and/or hardening of boundaries between states or groups has often resulted in aggravating rather than relaxing tensions;
- modern technologies such as small arms, motorized transportation and long-distance communication are significantly contributing to reshaping conflict dynamics in pastoral areas; and
- wrongly conceived development schemes and investments have often increased or aggravated opportunities for conflict.

BOX 12 – Troubled water

Development schemes that enhance access to water through catchments, wells and boreholes have given rise to a number of social as well as environmental problems. Water projects have often unintentionally destabilized social relationships, negatively affected resource management patterns and undermined mutual assistance networks and other means of averting risk (Helland, 2000), often resulting in overgrazing and conflicts. Well-meaning water resource development projects in pastoral areas can not only wreak unintentional harm upon herder communities by increasing herd density on pastures and by reshaping seasonal use patterns (Thébaud, 1988; Nori et al., 2005), but also provide an area of competition and possible conflict on the access rights to water itself.

In most pastoral cultures natural water sources (streams or natural springs) are open to all herders and herds (often also under the influence of the Koranic law). Water points that necessitate labour for building and maintenance are often controlled by a specific group, who look after their management and use. Water points are clearly important as they support grazing resources in surrounding pastures during the dry seasons. Water points developed with governmental, NGO or international funds hold unclear access and use rights, as it is not clear to whom they belong and to whom they are applicable. They should be considered as public goods, but the grazing areas they render accessible under dry conditions are normally under the control of a specific group, which might not be happy to open its access to every herder. As a practical indication about the problems and the risks involved in developing water points with unclear property rights mechanisms, conflictive water schemes have been a primary target of looting and destruction under civil strife in Somalia (Little, 2003). A similar fate has been reported for water schemes in pastoral Sub-Saharan Africa, including Kenya and Botswana.

Confrontation with state structures traditionally characterizes most pastoral regions, as herders resist the process of assimilation/integration/domestication perpetuated by central governments. Within this context, violence and insecurity might also be conceptualized as a response to pastoral marginalization, and/or a form of resistance to impede the implementation of externally driven laws, policies and investments. The case of the Palestinian Bedouins, who traditionally used to roam and graze in the Jordan Valley, represents a perfect case showing how a combination of geo-political and resource competition, combined with identity aspects, have inexorably driven herders from their lands.⁷¹

Experience attests that, although third parties might play an important role in mediating and facilitating conflict resolution, traditional institutions and processes need to be supported and strengthened. In fact, local mechanisms are more effective in preventing, resolving and mitigating disputes, as outsiders often lack credibility and knowledge of local cultures and values.⁷² Efforts to improve the management of conflict should therefore address capacity

⁷¹ Contribution from Issa El Shatleh, Palestinian Farmers Union, Palestine

⁷² Contribution from D. Aredo, Ethiopia

building of local institutions rather than facilitation from the outside.⁷³ Innovative instruments might include participatory mapping, land literacy materials, enhancing options for visits and exchanges, support exchanges amongst groups of pastoral women, facilitating telecommunication networks (through radios or mobile phones) and legal assistance (e.g. para-legals) to resolve conflicts.

The central function of the state within this framework becomes one of arbitration of conflict, rather than of direct imposition. Focal Point Management⁷⁴ is a possible way to operationalize external (national or international) involvement in resource management and related conflict resolution, by concentrating intervention efforts (and often scarce financial resources) on a particular category of resources, the relevance of which is critical for local livelihoods (such as the Niger Delta or Lake Chad in West Africa).

Table 3 - SWOT Analysis of the Roles of Actors in Mitigating conflicts⁷⁵

Actors	Strengths	Weaknesses	Opportunities	Threats
Government	Has overwhelming power to control violent conflict, has financial and administrative capacity to build infrastructure, etc.	Failure to harmonize customary institutions with formal institutions	Traditional leaders and NGOs are ready to cooperate with government, the local people want peace and order, etc. more power is given to Woreda administration.	Government may lose credibility, unless concrete measures are taken
Customary institutions	Wide acceptance and popularity among the local people, time-tested experience and appropriate flexibility, efficiency, etc	Lack legal backing; lack of harmonization with formal institutions lack of support from government, etc.	Government has put in place policies for the pastoral areas; NGOs policy advocacy work; increased recognition of indigenous knowledge systems	Could be eroded by market forces, individualization of property rights, political interference, etc.
NGOs & civil society	Recognize people's knowledge and wisdom; have experience in dealing with conflict; are accepted by the local people	Mutual mistrust and suspicion with Government; plans not integrated with national regional plans; no coordination	The major donors may support NGO initiatives, the people appreciate NGO intervention	Repressive laws may be made to stifle NGO activities
The private sector	Has the skill and financial capacity to weaken parochialism and promote nation-wide interests	Interested only in profit-making involvement in asocial activities like arms trafficking	Expansion of infrastructure and market, economic liberalization policies	Insecurity which reduces incentives to invest

Involvement of all concerned stakeholders as well as long-term commitment are vital components of any investment aimed at enhancing sustainable development in pastoral areas, so that options for conflict are prevented, avoided and managed in time. These factors emerged strongly in IFAD's experiences in West Africa (Zagrop), Sudan (Stock Route Project), and Morocco (Livestock and Pasture Development Project in the Eastern Region).⁷⁶

⁷³ Contribution from E. Omosa, Uganda

⁷⁴ Refer to Behnke, 1994

⁷⁵ Excerpt from Aredo, 2005

⁷⁶ Refer to <http://www.ifad.org/lrkm/theme/range/pastoral.htm>

VII Theoretical frameworks

An economic critique of Hardin's reasoning came through the Property Rights approach, based upon the theories of the Swedish sociologist E. Boserup, stating that natural resource management patterns develop according to population pressures and related resource scarcity, as the value of property determines the nature of the rights that pertain to it.⁷⁷ Increased population and resource scarcity induce socio-political innovations that reflect a shift to more exclusive forms of access, as the higher value justifies the 'transaction costs' related to administering and controlling the resource use – what Demsetz (1967) defines as the costs of 'policing'. This approach calls for increased formal tenure security as a way to enhance a more efficient use of resources. Efforts in this direction have included experiences in land-titling campaigns, land use planning in East and South Africa and the *gestion de terroirs villageois* in West Africa.

BOX 13 – The costs of pastoral administration

The costs involved in policing land tenure in pastoral areas represent an important component of the debate. As net primary range productivity is low, so must be the costs of administering its resources. Efforts to impose centralized and uniform control systems have often clashed with the resources needed to enforce them. Colonial authorities, as well as post-colonial states, have often entered into conflict with pastoral communities as the latter were requested to support (through taxation) the costs of a system that worked against them. As countries inhabited by pastoralists at large often rank among the low-income ones, the inappropriateness of centralized control, associated with its high costs, represented a (major) cause of the collapse of their state (from Afghanistan to Somalia).

Exception is made in pastoral-inhabited countries where oil-generated revenues provided central state budgets with extensive resources to pay for the institutional services and physical infrastructures needed to bring pastoral territories under some degree of control – as is the case in some Near East/West Asia and Northern Africa countries. In other areas, disputes over the utilization of oil-based income further triggered already existing conflicts (e.g. south Sudan and central Asia).

While enjoying only partial success in building local-level institutions for natural resource management, this approach has indeed brought a fundamental shift in the relations between local land users and the state by redefining local communities' rights and duties in relation to land.⁷⁸ This approach has in fact diverted the discussion from pastoral

⁷⁷ Demsetz, 1967; Lane & Moorehead, 1994

⁷⁸ Lane, 1998; Niamir-Fuller, 1999

'failures' to their potentials, as overall investments in range productivity are very low, not because the property regime has failed, but because available technology does not stimulate investment.⁷⁹

Overall criticism of the Property Rights approach points to the fact that it gives paramount importance to economic performance, while underestimating other important factors in people's decision making. The approach is biased by a too simplistic and static vision that is embedded in a kind of linear progression track that sees in the slow but inevitable privatization of rangelands the key to their future sustainability. Economics might be of high relevance indeed, but the picture is incomplete and the understanding only partial if other social and cultural elements are not considered.⁸⁰ To some critics, the theory of Property Rights represents the extreme version of the tragedy of the commons; it is deeply rooted in economics, and serves to merely redefine the traditional approach that portrays pastoralists as economically irrational and operating within an inherently destructive communal land tenure system. The Property Rights approach is currently being advanced by the World Bank, which speaks no longer of ownership but of land rights (securing of land rights is of particular relevance to vulnerable groups such as herders); no longer of private property but of security of landed property (required to motivate people to make improvements on land); not of markets for land but access to land⁸¹.

Two major areas of concern have been addressed in this regard:

- By focusing more on the structure than the function of management regimes, this approach is unable to deal with the spatial heterogeneity and temporal variability of resource endowment in pastoral environments. Different value resources exist in contiguous areas and their value might change seasonally and inter-annually, which constitutes the basis for herders' mobility – one need only think about the increasing importance of a strategic water point as the dry season moves forward.
- By stressing defined groups and territorial boundaries as critical ingredients to the success of collective resource management,⁸² this approach cannot cope with the degree of adjustment and fluidity vital to ensuring pastoral livelihoods. Inclusiveness (or porosity) of resource boundaries and user grouping, rather than their exclusivity, constitutes a major factor in local tenure arrangements.

Furthermore little consideration is given to the longer-term trends (such as climate change and globalization) and political processes (urbanization, transport and communication developments) that are continuously remolding pastoral environments and societies.

A main research effort along these lines is to be ascribed to the International Food Policy Research Institute (IFPRI)-based Consultative Group on International Agricultural Research (CGIAR) initiative on Collective Action and Property Rights (CAPRI). In collaboration with the International Livestock Research Institute, in the 1990s, work began on a project called 'Property Rights, Risk, and Livestock Development', with a specific focus on rangeland systems in Sub-Saharan Africa.⁸³ Further developments along these lines of thought developed into the so-called 'co-management systems', which argue that where resources are scarce and variable and income streams uncertain, communal property systems are the most efficient as the relatively low returns from the arid resource do not warrant the costs of organizing and enforcing more exclusive forms of tenure. Indeed, exclusive access rights are not the norm in pastoral environments, due to the periodic nature of the resources and the importance of reciprocity.

⁷⁹ McIntire, 1993:526

⁸⁰ Refer to Ensminger, 1996, for an appropriate discussion on the matter

⁸¹ Contribution of M.A. Rugadya, Associates for Development, Uganda

⁸² Refer to Ostrom, 1990; Feder and Feeny, 1993; Niamir-Fuller, 1999

⁸³ Refer to the www.cgiar.capri.org

This approach sees in local customs, rules and conventions the tools to articulate common interests as they promote voluntary cooperative behaviour that ensures local livelihoods in the long term, as those insisting on an area and belonging to a community share the same resources, needs and interests and are all concerned about what is defined as the 'assurance problem'. An appropriate sharing of responsibility for natural resource management between national and local governments, civic organizations and local communities is pivotal to ensuring sustainable resource utilization.⁸⁴ Within this framework groups and associations of herders must be put in the position to regenerate and apply their resource management rules and mechanisms, the erosion and undermining of which are the result of wider social, economic and political processes.⁸⁵ Successful experiences in this sense account for an increasing acceptance of herders and their animals in natural parks.

A more ecological criticism of Hardin's approach developed through the New Range Ecology, which addressed the functioning of arid and semi-arid ecosystems in order to provide a more appropriate understanding of the socio-political structures and processes governing pastoral systems. Range ecologists showed that arid and semi-arid environments are inherently unpredictable, and may or may not tend towards an ecological equilibrium. High and unpredictable climate determines complex ecosystem dynamics; livestock and vegetation do not always control each other; and external shocks (e.g. drought) rather than endogenous processes (e.g. low calving rates caused by malnutrition) determine livestock numbers and the state of vegetation.⁸⁶ Change in non-equilibrium environments does not occur gradually, does not follow successional models and does not illustrate the classical feedback regulatory mechanisms.

In simple terms, vegetation condition in pastoral areas is mainly determined by rainfall (or snow) that year, not by the grazing pressure of the previous year (Swift, 2004). Drought and desertification trends are more the results of long-term climatic oscillations/patterns than detrimental land use patterns/human activities. The concept of 'carrying capacity' fails to recognize the variability and patchiness of arid-land ecology.⁸⁷

The new directions suggested for range management policy⁸⁸ involve:

- devolution of management authority to local herders, who are more able than a centralized system to balance community needs and range capacities; and
- tenure systems that provide secure access to a range of ecological zones and allow for rapid negotiation and decision-making mechanisms to make the best use of variable and unpredictable range resources.

More recent developments of this thinking have moved towards an increasing interest in understanding the mechanisms regulating the human-environment relationships and the social dynamics that regulate natural resource management. Management of livestock mobility involves continuously contested claims and rights, and requires multiple institutions working at multiple spatial scales, authorities and functions. Rather than framing these dynamics simply in terms of aggregate population pressure on a limited natural resource base, a more disaggregated 'entitlements approach' considers the role of diverse institutions⁸⁹ in mediating the relationships between different social actors, and different components of local ecologies.⁹⁰

⁸⁴ Leach et al., 1996a; 1996b

⁸⁵ Runge, 1986; Bromley & Cernea, 1989

⁸⁶ Scoones, 1994; Ellis, 1994; Sandford, 1994

⁸⁷ Behnke 1994, Behnke & Scoones 1992, Behnke et al. 1993, Coughenour et al. 1985, Ellis & Swift 1988, Homewood & Rodgers 1991

⁸⁸ Bahnke, 1994, refer to African environments

⁸⁹ Moving away from the simplistic community-based organization conceptualization, institutions are here defined as regularized patterns of behaviour between individuals and groups in society, thus as mediators of people-environment relations (Leach et al., 1996b)

⁹⁰ Leach et al., 1996b; Niamir-Fuller, 1999

VIII Regional experiences

The process leading to the recognition, formalization and application of pastoral land rights changes from one region of the world to another, depending largely on the consistency of the pastoral population, its capacity in terms of political representation and the more general political environment. While the trajectories, pace and steps of this process differ from one country to another, some regional trends can be identified and experiences and lessons shared.

Table 4 - Regional zonation of pastoral systems (Blench, 1999)

<i>Zone</i>	<i>Main Species</i>	<i>Status</i>
Sub-Saharan Africa	Cattle, camel, sheep goats	Declining due to advancing agriculture
Mediterranean	Small ruminants	Declining due to enclosure and advancing agriculture
Near East and South-Central Asia	Small ruminants	Declining in some areas due to enclosure and advancing agriculture
India	Camel, cattle, sheep, goats	Declining due to advancing agriculture but peri-urban livestock production expanding
Central Asia	Yak, camel, horse, sheep, goats	Expanding following de-collectivization
Circumpolar	Reindeer	Expanding following de-collectivisation in Siberia, but under pressure in Scandinavia
North America	Sheep, cattle	Declining with increased enclosure of land and alternative economic opportunities
Andes	Llama, alpaca	Contracting llama production due to expansion of road systems and European-model livestock production but expansion of alpaca wool production

The Pastoral Code of West Africa

The Sahel is the vast swathe of semi-arid land stretching from Senegal on the Atlantic to Eritrea on the Red Sea. It represents the natural interface between the Sahara to the north and the southern forested regions. In this vast region, farming and herding often overlap, particularly where large water bodies exist, thus enabling the co-existence of different land uses and livelihood systems. A main policy concern/challenge through time has been the management of conflicts between different land users, towards enhanced integration and cooperation. Unfortunately the centres of political power (i.e. the capital city) were always based on the greener side of this virtual edge (on the highlands in East Africa and in the southern portions of the country in West Africa), thus favouring farmers and not herders. It is now increasingly acknowledged at all levels that policies should acknowledge the different production and livelihood systems underlying agricultural and pastoral systems, respectively, and enhance an institutional setting that favours complementarity that benefit both systems in a win-win situation.

In East Africa geomorphologic aspects play an important role in determining and delimiting farming (often associated with higher lands or plateaus) and herding systems (confined to drier lowlands). In the West Africa context it is more the presence of important water bodies (such as the Niger River and Lake Chad) that determines land use on a large scale. These closer ties between agricultural and pastoral systems have been a major driving force for rural development in the region, through symbiotic relationships based on multiple exchanges between herders and farmers. These exchanges range from bartering of milk, manure, grain and livestock to intermarriage to numerous forms of reciprocity such as herders lending lactating animals to cultivators or the latter allowing pastoralists to graze their livestock on their harvested fields. The encroachment of farming has further added to the complexity of the system, gradually favouring opportunistic agro-pastoral strategies, stimulating mixed livelihood systems and rendering the edge between different land uses less defined. Different forms of agro-pastoral arrangements and contracts exist amongst the Peul/Fulani, also leading to degrees of sedentarization. This has also been a major reason for dispute and conflict, which has often seriously undermined development options.

The Pastoral Code is the result of a long and complex process that has brought pastoralists and their territories to the centre of societal debate. While the Code itself is deeply embedded in the West African context, with its socio-political and agro-ecological specificities, the process that elected herders as social actors and acknowledged the specificity of pastoral resource rights provides an important experience and related lessons for other pastoral regions. This is especially true given the critical links established between decentralization and land tenure regimes, and the prominent role local organizations played in ensuring genuine involvement and participation of the pastoral groups. By regulating access to and utilization of pastoral resources, the centrality of the Pastoral Code/Chart experience is in the definition of appropriate mechanisms to prevent and resolve disputes and conflicts that traditionally flared up at the agro-pastoral interface.

After the long and devastating droughts that affected the Sahelian region in the 1970s and 1980s, development policies for marginal rural areas were discussed and re-discussed at large. The drafting of more general Rural Codes in most West African countries has led to the definition of a new legal setting concerning pastoral populations and resources. The Pastoral Code process aimed to fill the existing institutional/policy gap. After having recognized and acknowledged the rights of herders to access and utilize pastoral resources, the debate rapidly shifted to the best way to put this policy shift into practice. The aim was to enable local communities to truly enjoy the benefits while bearing the responsibility for managing natural resources towards a sustainable rural development. A Pastoral Code currently exists and is applied in Mauritania and Niger and a Pastoral Chart is effective in Mali. Other West African countries are exploring similar options to enhance the sustainability of pastoral systems and to expand opportunities for resource conflict

The process that led to the issuing of the Pastoral Code is closely related to the dynamics and events of the West African pastoral context, as well as the agro-ecological setting of the region, with the enormous relevance of the Niger River for the livelihood of most rural communities and the large and intense agro-pastoral interactions. Important events such as the harsh droughts during the 1970s and the 1980s, and the devaluation of the African Financial Community currency during the 1990s had also contributed to reshape and challenge local society. While on one side there was a growing recognition of the relevance of extensive livestock production to the regional economy, on the other side herding groups found themselves increasingly dispossessed of and marginalized from their traditional resources, with a worrying increase in conflicts at the agro-pastoral interface.

West African civil society is traditionally more organized and better structured compared to other pastoral regions, due in part to the consistency of the pastoral population as well as their relative ethnic and religious homogeneity. The relative ethnic homogeneity of pastoral groups (with few main groups such as the Tuareg, the Fulani/Peul, the Maurs) has represented an important 'socio-political asset'⁹¹ vis-à-vis the state, as their overall consistency and their trans-boundary networks has provided national governments with counterparts. Through a number of associations (such as *L'Union Inter-africaine des Organisations Professionnelles de l'Elevage* in Mauritania, *Association pour la Redynamisation de l'Elevage au Niger* in Niger, and various associations in Mali), local herding communities have joined efforts and played a relevant role in shaping the Pastoral Code process. This long-standing negotiation (at times conflictual) has contributed to forging an enabling socio-political environment where 'buzz words' such as decentralization, participation and indigenous rights had more sense than in other regions of the world. Significant support had also come from international agencies such as the International Institute for Environment and Development (IIED), Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ), Comité Permanent Inter-Etats de Lutte contre la Secheresse (CILSS) and ILC, which have been playing a critical role in ensuring that local communities actively participate in the decentralization process and more specifically that herders' concerns and voices are brought into the picture.

It is within this ecological and socio-political context that the Pastoral Code (for Mauritania and Niger) and the Chart (in Mali) have developed as an instrument to primarily prevent or help resolve disputes between different land users in an effort to make to most effective and equitable use of available natural resources. By placing emphasis on users' rights rather than resource ownership, the hybrid and fuzzy feature of pastoral property regimes is acknowledged, and the accent is put on inclusiveness, rather than exclusivity. The state law grants common property rights and provides an enabling environment for user communities to negotiate the equitable exploitation of the resources, and the avoidance of conflicts. The centrality of conflict avoidance is well reflected in the guidelines provided for conflict resolution, which prompts decisions to be taken in the short term so that peace can be re-established quickly. The Code fosters the self-regulating powers of society by giving communities space, flexibility, rules and institutions tailored to their needs.⁹² Conflict resolution is a main responsibility of involved stakeholders; should local negotiations fail, the public administration (through a mixed arbitral commission) and the state judiciary (the local court) intervene as a last resource.

The technical solutions proposed should not shadow the main sense of the process, which lies in the redefinition of concepts such as community, user group, '*mise en valeur*', territory and access rights, and in shaping an appropriate interface between formal and non-formal institutions, thus breaking the long-standing customary/colonial duality (see also Rwabahingu, 2001).

The main outcomes of the process are represented by:

- acknowledging herders and their associations as social actors;

⁹¹ Refer to Nori, Switzer, 2005

⁹² Contribution from Prof. H.W. Wabnitz, Albert-Ludwig Universität, Germany

- recognizing *l'espace pastoral* as the ensemble of diverse and complementary resources (grazing and browsing areas, salty zones, forest resources, natural and man-made water points) as well as a relevant biological entity;
- capitalizing upon traditional customs, local institutions and a participatory and continuous dialogue among the diverse stakeholders (*intercommunalité*) to avoid the up-scaling of possible disputes and conflict; and
- requiring the state to define a regulatory framework that devolves decisional power to local institutions and to intervene only as a last resort.

BOX 14 – Best practice from Mauritania⁹³

The Mauritanian *Code* (available at www.glin.gov or www.glin.mr) may be considered an example of legal 'best practice', as it is consistent with the local as well as the global environments. It is a well-written, short and clear piece of legislation, formalizing local traditions and clearly defining the role of different stakeholders. Its content and application are embedded in the society's culture and traditions. The document was drafted by local jurists and (Islamic law) *jurisconsults*, well versed in French law and the *Sharia*. It was also informed by technical experts, following in-depth appraisals of the situation in the field, in consultation with representatives of all concerned interest groups, and with the assistance of a number of international organizations. At the same time it is consistent with the United Nations Conventions on Biological Diversity, on Climate Change and the Convention to Combat Desertification. All three conventions apply to arid Mauritania. The *Code* heeds the conventions' objectives by establishing a framework for exploitation of natural resources consistent with the preservation of the local ecology, in order to preserve and foster human survival within the environment.

The main differences among these experiences lie in the power with which herders are directly vested to control pastoral resource access and related disputes, and the role that state bodies might play in the process. Whereas the Mauritanian Code recognizes the mobility of the herders and their access to pastoral resources as a traditional, pre-existing right, the Malian Chart, departing from the same premises, provides for administrative interference on a larger scale. Niger has gone further in this direction, leaving the exercise of the herders' rights virtually at the discretion of the administration.⁹⁴ Similarly, divergences exist in conflict resolution mechanisms, in that the Malian Chart places more reliance on state authorities by making actions and permissions dependent on agents of state agencies⁹⁵. By contrast, the Mauritanian Code acknowledges that the rights that herders request are already vested in them, and that the state authority serves to protect them.⁹⁶ The different approach is more likely to foster the communal solution in the case of Mauritania, and render the community consultation effort less effective in Mali and Niger. The Malian Chart is more rigid when it comes to transhumance rights, as it defines specific pathways and time calendars. However it mentions transboundary movement rights of herds and herders, thus paving the way for the Transhumance Certificate at regional level (under discussion at the Economic Community of West African States (ECOWAS) since the late 1990s).

While the Pastoral Code represents a valuable reference tool to tackle the complexity of pastoral resource use, a main perceived problem is that its application requires that previously flexible arrangements are reconfigured into a more defined setting (land use and administrative boundaries, calendars defining the time movements of animals, etc.). Other implementation bottlenecks derive mainly from the many levels of stakeholders involved and their

⁹³ Heibniz, 2006

⁹⁴ Ibid

⁹⁵ The *Charte* provides for judicial procedure as the normal conflict solution method, which must be preceded by a consultation effort. Refer to Art. 71 Mali *Charte Pastorale*

⁹⁶ The Code provides for an appeal to a state tribunal as ultima ratio - when all other negotiated avenues have been exhausted. Refer to Art. 39 Mauritanian Code Pastoral.

diverse degree of awareness and bargaining power in the negotiation process. Resistance from politicians and from power structures within pastoral society is also reported from the field.

Initiatives aimed at gathering experiences and drawing lessons related to the application of the Pastoral Code and the process of decentralization/devolution should be supported, as well as actions directed towards increasing the awareness, representation and communication capacities of pastoral communities.

In the same regional context a long-standing discussion concerns the cross-border transhumance, with related security, health, and economic implications. By the end of 1990s⁹⁷ a policy agreement was reached on how to allow regional movements under specific regulations. Unfortunately this declaration of intents has been followed by very limited accompanying measures and investments, thus to have created nowadays a degree of disillusionment among herding communities and concerned organisations. Some countries such as Benin, Togo and Ghana have recently suspended the agreement and do not accept anymore trans-bordering herds, thus to curtail pastoral communities off important greener pasture and market outlets located in the southern portion of the sub-region. Adequate investments in the hard (facilities and services along transhumance routes, animal-health infrastructures) as well as the soft components (controls of animal movements as well as of farming encroachment along these routes, pastoralists awareness raising and capacity building) would be needed to revive this initiative, with ECOWAS playing a leading role.

Pastoral Associations in Asia

North of the Sahara and in Asia, the relationship between pastoralists and the state has often been characterized by the nationalization of pastoral resources and the state-led organization of herders in collective/associative forms. The rationale went that nationalizing natural resource control, organizing pastoral groups in associations and providing them with services and/or facilities would improve herders' access to resources and promote their identification with state institutions, thus resulting in less conflictive relationships. Governments tried to either superimpose new institutions on existing ones or to co-opt traditional ones into state structures. In practice this strategy resulted in the dispossession of pastoralists from their most valuable resources through their incorporation into state and market mechanisms.

Until recently, rangelands in these regions were administered through systems in which the religious or socio-political elite (monasteries, sheiks, marabouts, nobles, tribal chiefs) held formal control over pasture lands, and herders' access and utilization were regulated by customary rights, under the '*hema*' or similar systems. These systems explicitly accounted for the vulnerability of certain groups and ensured some mechanisms to protect and guarantee their basic access to critical resources, and the protection and the sustainable utilization of these resources. Social and ecological concerns, the main pillars of the sustainability paradigm, were often at the centre of pastoral resource management systems.

During the last two centuries, developing state structures have substituted control by local elites through national land reform policies, with ineffective government bureaucracy replacing existing relationships at local level and weakening local customary institutions. In areas where the state could benefit from important revenues (such as the oil-producing countries), the process was effective in organizing pastoral groups around material resources (such as transport or water facilities, animal health services, fodder provision, processing and marketing facilities). This led to consistent changes in pastoral livelihood systems, driven by an increased integration into market mechanisms. The growth in urban populations and revenues provided a natural outlet for pastoral animal products, spurring what is

⁹⁷ Decision A/DEC. 5/10/98 refers to official regulations concerning cross-border movements.

now defined as the 'Livestock Revolution' as well as non-rural employment opportunities for members of the pastoral population. Commercial redefinition of pastoral systems inevitably undermined traditional resource management and largely reduced mobility patterns.

Apart from the development of an oil economy – which rendered states richer and stronger - two other factors contribute to the process of reshaping pastoral livelihoods in the Near East and North Africa region: the fact that it has never been the focus of mass international development assistance and the weaker capacities of local civil society. It is very likely that these three factors are closely correlated and that oil extraction has indeed played a main role in local rural development patterns.

In most countries of the region, the majority of pastoral communities are now organized in 'producers' associations'. About half of pastoral livestock feed requirements come from grazing on range, stubble and crop residues, while the other half is provided through purchased feed, often subsidized by the government. Indications are that in Syria about two thirds of the Bedouin population belong to *hema* cooperatives and associated schemes (Chatty, 2005). The tricky issue is that government subsidies for animal feeding (often barley) encouraged further expansion of commercial livestock rearing as well as of speculative barley growing upon rangelands, thus further hampering options for pastoral resource management. The Iranian case (see box 15) could well represent an exemplary one for this regional context.

BOX 15 – The Iranian White Revolution⁹⁸

From ancient times and particularly since the Islamic era, much of the arid and semi-arid land in the region was under the control of tribal and nomadic pastoralists. Each one of the 700 Iranian nomadic tribes (with their camps, clans and sub-tribes) had their customary areas, including summering and wintering grounds and migration routes in between. Pastures were nominally owned by the *khan*, or tribal chief, who would assign them to tribal groupings against a share of their yearly profits (around 3 per cent of grazed livestock). Most villages also had their (often common property) rangelands for their grazing needs.

Successive governments during the 20th century have attempted to reform the land tenure system in the country, often pursuing a policy of sedentarization in pastoral areas. The Shah's White Revolution during the 1960s had a major impact on this process. In its effort to reform the country in order to enhance its socio-economic 'development', the Revolution, which included the nationalization of natural resources, altered the structure of rural society and its livelihood system in a fundamental way, contributing to further weakening customary institutions and deepening land access insecurity. One major aim of this land reform was to deprive the tribal chiefs of political power and force the tribes to sedentarize.

Today not much has changed, and the vast majority of rangelands are still owned by the government, although piecemeal privatization of more valuable lands to politically connected commercial interests has been taking place. Herding communities need formal permits to graze their livestock on their customary pastures, and these permits are short term and refer only to specific use rights.

⁹⁸ GENESTA, 2005

In parts of **Central Asia** the collapse of the Soviet system and the recent transition towards a market system have had repercussions on the livelihoods of pastoral groups. The dismantling of the collectives has provided room for the re-emergence of customary regulation and autonomous cooperation, often based on kinship relationships (UNDP, 2001). A gap is being created between revitalized customary institutions and weaker and ineffective states and related legal and political structures. Playing at this interface would be an interesting challenge for the ILC.

Other important processes that have contributed to reshaping pastoral livelihoods in the region are:

- consistent urban-to-rural migration, which has greatly increased the number of effective pastoralists in the region (refer to the WISP initiative); and
- the re-creation of boundaries and frontiers amongst states that previously pertained to the Soviet Union, which hampers the movement of herders and livestock across borders. Kyrgyz herders traditionally wandered with the animals from the pastures of Kyrgyz Ala-Too up to the Chui River and Lake Balkhash in Kazakhstan during the winter period and back in summer. Similarly, the pastures in the Fergana zone adjacent to Kyrgyzstan, Uzbekistan and Tajikistan were used. All these cross-border movements are now under threat.⁹⁹

As state management has a poor record for ecological efficiency, equity and management standards (Swift, 2004) the change from a state-led to a community-oriented system in managing rangelands holds the potential for reorienting resource access and utilization rights in pastoral areas. Present trends of decentralization and devolution are creating new space for manoeuvre where pastoralists themselves can play a critical role. Although civil society seems still dormant in the region, the consolidation of pastoral grassroots organizations and the revival of traditional institutions and conflict management mechanisms represent promising steps towards sustainable grazing management. Together with the development of progressive legal frameworks, enhancing organizational and representational capacities of pastoral communities is increasingly perceived as an unavoidable step to improve their political capacities vis-à-vis other land users, state and regional bodies and market forces.

BOX 16 – Mongolia: back to the future¹⁰⁰

Under communism, Mongolian herders were organized into collectives, and access to the grazing land was centrally administered. With the demise of the Soviet empire these grazing rules have disappeared, resulting in general confusion and few rules to govern access to common grazing land. At present a new land law is being discussed. There are strong arguments in favour of increasing security of tenure over pasture land in Mongolia's extensive livestock sector, in order to promote sustainable land management and reduce conflicts over pasture. It is widely acknowledged that privatization of pasture is inappropriate. It is more likely that individualized, private ownership of pasture land, under Mongolian conditions, would actually increase conflict and jeopardize environmental stability, particularly given the lack of administrative capacity to enforce such rights.

The experience from the *Policy Alternatives for Livestock Development* indicates that:

"Ownership often increases investment and creates a demand for and a supply of credit, since the land would be managed as a capital good in which investments must be made to promote sustainability and prevent land degradation. This assumption does not hold for most pasture land in Mongolia's extensive livestock sector in which few if any external inputs are required to maintain productivity. Sustainable pasture management in such an environment depends primarily on mobility and flexibility rather on capital investment. There are certain exceptions: investment may be made in winter/spring camps and shelters, and in wells and other water resources, and there may be a demand for credit to overcome transport constraints in seeking to maintain mobility.

⁹⁹ Contribution from Saiakbay Kulov, Kyrgyzstan

¹⁰⁰ PALD, 1990s

"In addition there are strong ecological reasons why the development of a market in pasture land would be undesirable. Sustainable land use under an extensive grazing system requires mobility of livestock between pastures suitable for use in each season. Such seasonal pastures must be shared between neighbouring households since their patterns of movement overlap and vary between years according to forage availability. The spatial arrangement of Mongolian landscapes vary considerably between ecological zones; larger areas are required to encompass land suitable for all seasons in desert-steppe zones, while smaller areas are required in the steppe and mountain-forest-steppe zones. In most cases the risk of drought and/or *dzud*, among other natural hazards, requires that herders have access to traditional areas of pasture for emergency use. Taken together these factors account for the indivisibility of pasture land in Mongolia below a certain spatial scale varying by ecological zone. On no account should transfers of land be permitted that would fragment in any way these minimum sustainable pasture resource areas."

A suggested solution is the issuing of long-term land leases to groups of herders rather than individuals to allow sustainable levels of mobility and flexibility. The terms of land leases should be carefully specified to provide for security of tenure at the group level, thereby creating incentives for productive investment in land improvements, and for regulation of pastoral land use to encourage sustainable land management. The *bag* (a customary institution that used to play an important role in allocating pasture lands and settling conflicts at local-level before collectivization) shows promise as an appropriate level of grazing association to complement such new forms of land tenure, building on its customary functions (Mearns 1992).

State structures with lower level of organization and resources had been much less able to impose an effective control over pastoral territories through state-led pastoral associations. In the Sub-Saharan African context, and particularly in the countries that tried to organize herders under the auspices of 'scientific socialism', a main outcome of these policies has been the spoilage of the cooperative concept (such as in Ethiopia, Tanzania, Somalia). Instead, since the 1990s a number of innovative and fruitful experiences aimed at investing in traditional systems of knowledge and management have been developed in Sub-Saharan Africa mainly by international agencies (such as GTZ and the Danish International Development Agency (Danida) in Burkina Faso, World Bank in Mauritania, Mali and Chad, UNDP in Sudan and Oxfam in Kenya).¹⁰¹

Eco-tourism activities in the Mediterranean Basin

A main cultural as well as economic shift that is needed regards an appropriate valorization of the products and services that pastoral communities provide to society (ranging from valuable protein products, to the protection and regeneration of natural resources, to the conservation and development of a highly valued pool of animal genetic resources), and the fair sharing of the benefits produced through resources found in pastoral areas, such as biodiversity or mineral resources.

Apart from better-known cases in the Sub-Saharan African context, concern for tourism in pastoral areas is rising in the North East and Near East regions, where it is called 'desert tourism' (refer to Chatty, 2004), as well as in southern Europe, often in mountainous environments. Especially in the developing approach to 'eco-tourism' – defined as a form international tourism that is ecologically, economically and socially sound and sustainable (Chatelaine, 2005) – pastoral areas are gaining ground, as they present an impressive amount of unique and attractive ecological as well as socio-cultural features. This new approach has enabled the paradigm that has been detaching pastoralists from their lands to be challenged. Pastoral populations were perceived as obstacles to be

¹⁰¹ Also refer to Niamir Fuller, 1999

overcome rather than as partners in sustainable conservation and development, despite the fact that they themselves have shaped and conserved those environments, as herders traditionally convert solar energy, stored up in pastures, into three extraordinary products: meat, cheese and landscapes¹⁰² (*...de transferencia de energía fotovoltaica, acumulada en los pastizales, convertida en tres productos extraordinarios: carne, quesos y paisaje*).

BOX 17 - Pastoralists and the environment

Pastoralists themselves hold a deep knowledge of the complex ecological dynamics of their surroundings, and are often the best detectors of environmental change. Recognized as 'custodians of the commons'¹⁰³ they have helped maintain the rich range of biodiversity of pastoral lands, from the Somali sub-region to the Tibetan plateau, both of which are filled with an impressive variety of animals and plants. This ecological wealth has translated into a wide variety of protected areas and national parks being located within pastoral areas, such as the Serengeti-Mara region of East Africa, the Three Riverheads area of China and the National Parks of Abruzzi and of the Picos de Europa in Europe (Lane, 1998). The relevance of sustainable range management to carbon-sequestration strategies further supports pastoral resource management. Seemingly the capacity that pastoralists display in protecting natural resources in mountain territories has contributed to conserving and regenerating freshwater resources for lower lands population, such as the mountainous areas of Kyrgyzstan that supply fresh water to regions of the Central Asia, and the Tibetan plateau that provides the water base for the main rivers flowing in southeast Asia.

The recognition of pastoral areas as particularly critical for environmental purposes is not without cause for pastoral concern, however, as initiatives aimed at the protection and conservation of nature often result in local pastoral communities being deprived of access to critical resources.¹⁰⁴ While it is now clear that agricultural land use has been more harmful to natural resources than mobile livestock keeping, herders are still perceived as the problem rather than as a primary contributors to conservation.

The new paradigm of including herders in their environments, rather than excluding them, as major agents of sustainable conservation and development goes under the label of 'co-management' and has developed since international conservation agencies such as the World Conservation Union (IUCN), the World Wildlife Fund (WWF) and others have shifted their agendas towards a recognition of the sustainability of pastoral resource management. During the 1992 Earth Summit in Rio, this approach was somehow institutionalized: to foster sustainable livelihoods, poverty alleviation should go hand in hand with good governance and biodiversity conservation. Within this matrix, tourism, a crosscutting and fast-growing economic activity, has appeared as a recurrent theme at international development fora and in plans devised between national governments and international funding and development agencies such as the World Bank, and many UN agencies, such as UNDP (through the Global Environment Facility) and the United Nations Educational, Scientific and Cultural Organization (UNESCO) (with its ambitious pan-Saharan plan for tourism development (2003) (Chatelaine, 2005). Participatory involvement of the local population is now considered a major prerequisite in the development of conservation schemes and tourism-related activities. As to Bocco (2000), unlike previous development agendas this new approach not only allows local populations to remain in protected areas instead of being evicted or displaced, but it also goes as far as adopting a favorable bias towards

¹⁰² Contribution from J. Izquierdo Vallina, cordillera Cantábrica, España actualmente Jefe del Departamento de Tecnología del Servicio Regional de Investigación y Desarrollo Agroalimentario (SERIDA), promotor y coordinador del Plan Pastores XXI para la recuperación del pastoreo en los Picos de Europa (España)

¹⁰³ Lane, 1998

¹⁰⁴ Defined as conservation refugee, Dowie, 2006

mobile pastoralists, praising their traditional conservation practices, and calling for the revival of customary laws and arrangements to manage natural resources.

Although the 'co-management' paradigm has been effective for more than a decade, its practical implementation seems nevertheless difficult. Lessons learned indicate that while coercive systems of environmental protection have rarely been effective, local livelihoods cannot be improved merely through income generation schemes associated linked to conservation or tourism activities. Failures to comprehensively understand local social and cultural patterns and dynamics and to actively involve local communities at the planning and implementation stages are likely to affect the outcomes of the whole initiative, as it has been the for the World Bank Dana and Wadi Rum programmes in Bedouin areas of Jordan

A number of experiences in the Near East and North Africa region provide indications about positive and negative implications of tourism activities in pastoral areas (refer also to Chatelard, 2005). Amongst the positive ones, 'desert tourism' promotes the recognition and valuing of pastoral resource management, while having the potential to:

- provide an alternative income and livelihood source to pastoralists
- contribute to diversifying and developing the pastoral economy
- enhance mobility and maintain extensive social links,
- improve rural-urban relationships and exchanges.

On the other side, tourism initiatives in pastoral areas might directly touch the heart of the dispute between conservation claims and pastoral land rights. Furthermore, desert tourism:

- reinforces dependency on urban centers
- reshapes pastoral livelihoods and the allocation of household resources
- contributes to the material and physical restructuring of space in arid areas
- enhances processes of socio-economic differentiation within the communities
- creates dependency on tourists (international security framework) and on the state, which controls tourism flows

More information should be generated and gathered on this critical subject, as well as options for sharing experiences and lessons learned. The Mediterranean context might provide a number of interesting and diverging approaches in the field of eco-tourism and the diverse impacts they have on pastoral resource rights.

IX Herders' footsteps

As also defined in the UN CCD operational framework, by acknowledging herd mobility as a critical factor for sustainable pastoral livelihoods, policy implications imply that:

- pastoralists' rights to land must be secured; and
- authority to administer natural resources must be decentralized and power as well as responsibility devolved to/shared with local institutional levels.

Within this mobility paradigm, appropriate policies, legal mechanisms and support systems must be in place in order to move away from central and remote control of rangelands and make pastoral communities responsible for their evolution towards economically, socially and environmentally sustainable livelihood systems.¹⁰⁵ This enabling environment should define the operational framework for resource access, use and management to take place, so as to comprehensively address the diverse claims and enable the different local institutions to work towards fair negotiation and brokerage of different interests, and to avoid conflict and resource degradation. In this regards, there are a number of opportunities and constraints.

Pastoralists must be secured resource access rights.

As highlighted in the ILC Common Property Rights paper,¹⁰⁶ customary systems remain vulnerable where they are not recognized by the state, particularly when governments take actions or establish policies that undermine the authority of customary institutions. Tailored mixing/merging of customary and modern rights and institutional settings seems the only possible way forward to establish an appropriate framework for enhanced resource access for pastoral communities. This is needed in order to:

- halt the process of land eviction
- safeguard pastoralists' rights to sustainably manage their own resources
- secure access to critical livelihood resources through established routes and access rights;
- reverse current policy decision-making towards appropriate investments in herding areas.

Where a more pastoral friendly policy environment exist, it tends to exist on paper only and not in the pastoral territories themselves. Efforts are needed to secure pastoral land rights, not only through a formal legislative framework that protects pastoral lands against expropriation and violation at any level,¹⁰⁷ but even more so through the sound implementation and enforcement of these laws and policies on the ground.

¹⁰⁵ Niamir-Fuller, 1999

¹⁰⁶ Fuys et Al., 2006. International Land Coalition

¹⁰⁷ Ibid.

It must be recalled that pastoral tenure regimes exhibit levels of complexity and internal variability that are virtually impossible to simplify into legal formulae and codes.¹⁰⁸ It is quite arduous to codify and formalize oral agreements that are fluid, dynamic and open to negotiation by nature. The absence of uniform and rigid rules imposed by an authority and the reliance on *ad hoc* decisions through negotiation at the local level allow a fine-tuning and adjustment of stocking rate to the ecosystem's variability.¹⁰⁹ Therefore, there is a risk that by formally acknowledging and codifying local informal institutions, they might become too static and rigid, or be inapplicable or box-in pastoralists, thus contributing further to their vulnerability. Seemingly, keeping pastoral resource management regimes fluid might provide for an ambiguous and confused setting that would only favor skillful elites rather than the pastoral communities as such.

Authority to administer range resources must be decentralized, and power as well as responsibility devolved to/shared with local institutional levels.

Experience from all over the globe attests that policies, laws and institutions aimed at providing a centralized and uniform control system over pastoral rangelands have proven to be largely ineffective, costly and unmanageable. Through the principle of subsidiarity,¹¹⁰ control over rangeland resources must be relinquished *de jure* to local levels.¹¹¹ Local users must be given legal rights to control the resources on which they depend, in order to enhance responsibility and achieve sustainability, as appropriate utilization of human and social capitals at the local level allows the transaction costs in pastoral administration to remain low.¹¹²

As to the Agenda 21 'good governance' approach, opportunities for local empowerment are provided within the larger framework involving participation and decentralization. A major recognized problem is that these processes normally concern power devolution to formal institutions or state co-opted organizations rather than strengthening and empowering customary/grassroots ones that would be more responsive and accountable to pastoral communities.¹¹³ This seems especially true in marginal areas, which are remote from the political decision-making centres.

Lessons learned are that while reshaping the overall institutional setting that governs pastoral territories, there is the risk that economic as well as political elites at different levels might profit from authority vacuums to pursue their interest at the expense of local communities. Cases from the discussion group attest that new offices, structures and borders might be put in place with this purpose, thus further fragmenting pastoral territories and affecting the livelihoods and marginalizing the conditions of pastoralists.

The potential of these processes to truly contribute to rebalancing power structures in favour of local communities depends to a large extent on which governance structure is taken into account at the local level.¹¹⁴ Are community-based institutions strong and capable enough? Are customary norms and rules acceptable *tout-court* (think about women's control rights over land and livestock)? Are pastoral communities capable enough to undertake collective decision making and action, and at which level? Are traditional mechanisms effective to manage disputes and disseminate options for conflict? At the same time, are formal institutions ready to devolve control over ranges?

¹⁰⁸ Behnke, 1994; Lane, 1996

¹⁰⁹ Niamir-Fuller, 1999

¹¹⁰ Subsidiarity here means that administrative tasks should be carried out as near to the level of actual users of resources or beneficiaries of administration as is compatible with efficiency and accountability, as to Swift, 1994.

¹¹¹ Behnke, 1994

¹¹² Behnke et al., 1993; Swift, 2004

¹¹³ Swift, 1994

¹¹⁴ ILO, 2005. An ethnic audit of selected PRS Papers. ILO, Geneva

Moreover, decentralization often means the atomization of resource rights among individuals and small groups, thus creating further divisions on existing territories and allowing for 'land grabbing' by local government officials (IIED, 2003). At the Global Pastoralists Gathering (GPG) meeting in Turmi (2005) pastoralists from West Africa reported that implementation of decentralized policies was creating new borders and boundaries within the same country, which were further complicating pastoralists' movements and resource access patterns.¹¹⁵ In some parts of federal Ethiopia new institutions that have limited consistency with the local setting are being created to administer pastoral areas. Indications from central Asia are that the split of the former Soviet Union is creating alerts of the same nature.

Any sound appropriate intervention strategy to support pastoral land rights must therefore consider working on both sides of the socio-political system. Two questions have to be raised to achieve a comprehensive operational framework:

- What can be done to improve the socio-political capital of pastoralists?
- Which policy and societal levels should be involved in the process?

Over the last three years Oxfam GB has been addressing these issues through a capacity building for empowerment approach. The approach follows a twin track: fostering strong, representative organizations through which pastoralists can better understand, articulate and claim their rights; and influencing institutions (such as governments) to become more responsive to pastoralists' interests and concerns. This approach enables pastoralists' effective participation and representation in ongoing decentralization and devolution processes.¹¹⁶ A broader discussion of these two issues follows.

Investments have to be made to enhance pastoral socio-political capital

Supporting socio-political capital is an important task in empowering pastoral communities, so as to develop their capacity to raise their claims and effectively enforce their rights in negotiated ways. The lack of effective representation of pastoralists' interests lies at the root of their vulnerability, as it has been instrumental to governments' lack of responsiveness (as the Karamoja case clearly attests¹¹⁷). Experiences from different regions demonstrate that social, economic and political processes during the last century have so deeply undermined traditional pastoral governance system that in a number of cases pastoral societies seem incapable of organizing themselves sufficiently to ensure sustainable land use under current conditions.¹¹⁸ Ways need to be found to forge pastoral organizations that merge elements from traditional and modern institutional frames, in order to enhance their consistency within the broader societal framework.

The specific origin and the nature of the pastoral socio-political capital need to be acknowledged beforehand. Group-binding¹¹⁹ ties are an important asset among pastoralists and traditional pastoral institutions are often capable of managing disputes and interests at the local level within and between groups with long-standing ties. These features often imply a limited capacity in dealing with the larger political framework and in relating to external groups or forces in the wider societal framework, thus representing a major reason for their political marginalization. Stress can

¹¹⁵ Author's note

¹¹⁶ Contribution from S. Nangiro, Oxfam GB, Uganda

¹¹⁷ Ibid. www.oxfam.org.uk/what_we_do/issues/pastoralism/index.htm

¹¹⁸ Lane & Moorehead, 1994; Lane, 1998

¹¹⁹ We refer here to the definitions of the different forms of social capital (binding, bridging and networking) as defined by Woodcock and Narayan, 2000.

emerge, for example, when engaging in formal market interactions, when private land holders affect migratory routes or when statutory legislation changes resource access rights (e.g. transforming pastoral areas into national parks).

How to extend and improve the bridging and networking capacities¹²⁰ of pastoral social capital towards a fairer integration into the wider societal context represents the concern of a growing number of agencies. Shifting the attention from community-based organizations towards the socio-political dynamics that regulate pastoral institutions implies a serious consideration of the dynamics of power relations among the different social actors involved and related implications in resource management. As mentioned above, traditional pastoral institutions are often capable of managing disputes and interests at the local level within and between groups with longstanding ties, but face difficulties in effectively interact with external groups or forces. In this context, civil society has undoubtedly a relevant role to play to support this process, eventually leading to improving the visibility and self-organization of pastoral groups.¹²¹ In East Africa local NGOs, often supported by international ones,¹²² have helped mediate conflict resolution processes in pastoral areas, while local and regional pastoral associations have been determinant in shaping the Pastoral Code process in West Africa. Weaknesses of civil society in other pastoral regions represent a major constraint towards their political empowerment.

Experience shows that a number of different entry points exist to bring the pastoral issue to the foreground, from indigenous rights to biodiversity protection, from food security to food safety. Experiences from many regions have demonstrated that national as well as international organizational and lobbying efforts could be successful in changing policies towards pastoral peoples. This seems especially the case when critical alliances are made with influential movements for equality, human and environmental rights.¹²³ A growing number of international agencies, from IUCN to Oxfam, can provide lessons in this field. Specific pastoralist-concerned organizations have also flourished in recent years (refer to the Reference section).

Appropriate policy and societal levels need to be addressed

No doubt pastoralists themselves have to play a main role in enhancing their political capital in order to more fruitfully articulate their needs, represent their claims and defend their rights. But what is the level and the societal counterparts for this process to happen?

In this paper we claim that state structures have been inefficient as well as ineffective in taking care of pastoralists, the best option having been that of benign neglect. So, what confidence should be given to state governments, in this age of decentralisation, light institutional setting and devolution?

National states still, and increasingly, hold a critical role in establishing a pastoral-friendly policy environment that acknowledges their basic rights and renders them citizens of the same degree as other groups. This renewed approach must start from a reconsideration of pastoralism vis-à-vis other forms of livelihood, land use and economic contribution. From meat pricing to secure access to water and education, national states must redirect their understanding of and efforts towards pastoral groups.

The main areas of concern should consider initiating and fostering co-management approaches in rangelands, defining an enabling environment in supports of negotiations and preventing disputes over resource access, assisting pastoralists to better prepare for and cope with uncertainties and the vagaries resulting from the agro-

¹²⁰ Ibid.

¹²¹ Contribution from J.L. Merega, Argentina

¹²² E.g. ITDG, Oxfam UK

¹²³ As also indicated in the Turmi Global Pastoralists Gathering, 2005

ecological as well as the socio-economic environment.¹²⁴ It would also be appropriate to endorse cross-border approaches and to address regional policy bodies wherever they effectively exist, as this would be more consistent with the nature of pastoral resource management. Within this framework, national states, in consultation with pastoralist groups and the development community, must come up with common or at least mutually supporting policies and well-coordinated development plans designed to help these transnational pastoralist communities for the sake of overall regional development. Such a regional enabling policy environment and cooperation scheme would certainly respond better to the recurring emergencies affecting pastoralists, such as the current drought emergency in Sub-Saharan Africa.¹²⁵

In this sense, cross-border and regional approaches will diminish options for competition and conflict and assist people in realizing that they have more commonalities than differences to focus on,¹²⁶ which could be an important way to defuse conflicts and improve collaboration amongst different groups. Together with consistent and coherent policy and legislative frameworks, practical initiatives could take the form of shared facilities and services (education, human and animal health, sports), facilitating market movements and exchanges, setting up accessible and participatory information systems (related to the market, but not only) and adding value to pastoral products (processing, marketing). Recent experiences of the Inter-African Bureau for Animal Resources (IBAR) in East Africa might provide interesting lessons on these matters. The experience in West Africa is also useful here: the process that led to the definition of the Pastoral Code, the Praia process in which CILSS played a key role and the cross-border programme on transhumance being implemented by ECOWAS.¹²⁷

International cooperation and donor organizations hold important responsibilities in shaping future pastoral livelihoods. A growing number of United Nations agencies (IFAD,¹²⁸ FAO,¹²⁹ UNDP,¹³⁰ UNICEF, UNESCO and others) are beginning to acknowledge that pastoral systems deserve a specific and tailored approach that promotes a holistic vision of pastoral resource management and recognizes the centrality of access to land to enhance the sustainability of their livelihood systems. Partnerships are needed to enhance the involvement of development banks in this framework, as well as to strengthen the existing and developing links between United Nations and governmental and non-governmental organizations. The IUCN-UNDP World Initiative for Sustainable Pastoralism (WISP) initiative¹³¹ represents an important step in this direction.

ILC has a strategic role to play in these two domains, contributing its specific experience and expertise towards relevant and meaningful land reforms that are favourable to pastoral and livestock producers.¹³² ILC could also play an advocacy role within the Rome-based United Nations organizations (IFAD, FAO and WFP) to establish intervention policies at the regional level for pastoral groups.

¹²⁴ Contribution from Prof. J. Gefu, Nigeria

¹²⁵ contributions from Bashir Hussein, SomaCent Development Research, The Netherlands and prof. J Gefu, Nigeria

¹²⁶ contribution from E. Omosa, Uganda

¹²⁷ contribution from K. Hussein

¹²⁸ refer to <http://www.ifad.org/lrkm/theme/range/pastoral.htm>

¹²⁹ particularly through the Livelihood Support Programme, the Initiative Livestock Environment and Development and the Pro Poor Livestock Policy Initiative

¹³⁰ through initiatives developed within the Global Environment Facility frame, such as a number of project

¹³¹ World Initiative for Sustainable Pastoralism, refer to www.iucn.org/wisp/

¹³² contribution from prof. J. Gefu, Nigeria

X Conclusions

"[...] land belongs to a vast family of which many are dead, few are living and countless members are still unborn".
Nigerian saying¹³³

Throughout the world pastoralism is now acknowledged as the most effective and sustainable way to utilize marginal lands. Through a unique and finely tailored resource management system, pastoralists have been preserving natural ecosystems for centuries, while producing quality products to ensure their livelihood as well as contributing to those of other groups. This positive understanding of pastoral systems has recently been gained, resulting from consistent efforts of bio-physical scientists as well as from the failures of past misunderstandings that inspired inappropriate policy making and investments. Efforts are needed from socio-political and economic environments to translate this enhanced understanding of pastoral systems into a pastoral-friendly institutional setting.

Due to their critical dependence on the natural resource base, access to range resources represents by far the most important key to secure pastoral livelihoods and reverse current trends of vulnerability and insecurity. While land is central to pastoral livelihoods, areas inhabited by pastoralists are traditionally considered 'frontier lands' in the eyes of non-pastoralists, as they represent:

- agro-ecological environments that do not support continuous crop cultivation and cannot sustain large population numbers;¹³⁴
- unoccupied territories with over- or under-utilized resources and thus open to outsider appropriation;¹³⁵
- geo-political borders between different societies, civilizations and states (e.g. mountains or deserts); and
- areas remote from mainstream central state and/or market rules, forces and dynamics.

In truth, however, there are no pastoral areas, as all lands might in one way or another, in one period or another, contribute to pastoral livelihoods.

While acknowledging that rangelands are traditional territories of pastoralists, when looking at their livelihood strategies it is mobility and the access to a range of different and varying resources that have to be taken into account, rather than just a piece of land or a delimited area representing a defined grazing territory. The administrative definition of land does not apply to herders, as pastoral lands are those that contribute to their livelihood, feeding their animals, enabling them to exchange their products, providing them relief from a drought or protection from a conflict. The downtown of a city in eastern Spain, the cold Siberian steppe, the Sahara fringes, Addis Ababa public gardens, the Jordan valley, the port of Boosaso, the Juba River margins, the singing Borana

¹³³ Reported in Lane, 1998

¹³⁴ Markakis, 2004

¹³⁵ Galaty et al., 1994

wells, harvested farms in the fertile crescent, forest areas in Nigeria, Andean routes might all represent pastoral territories at different times, should conditions require.

What is therefore implied here is the need for a more functional definition of land, which includes different uses, users and rights, and thus includes a socio-political dimension related to negotiating its fluid access.¹³⁶ Furthermore, the relationship to their resources is a vital part of the identity of pastoral groups, as can be experienced by asking a herder to name the places that animals move through. Every single spot carries a specific ecological, social and cultural feature. This is the reason we talk here about territories, not lands.

The mobility paradigm no doubt involves a number of critical technical and political issues associated with its implementation, as it goes deep in challenging critical concepts such as those of property, of land use and of nationhood. Pastoral resource management requires effective socio-political capital, which has often been undermined by the constant erosion of traditional structures and customary rules due to the rapid transformations that rangelands and pastoral societies are undergoing, and the squeeze between farmland and natural reserve they have been forced through. This represents a main reason leading to the flaring up of conflictive confrontations upon specific resources. In this context, conflict and insecurity that characterize some pastoral regions might be interpreted as the resistance of pastoral groups towards outsiders' encroachment or the implementation of unfriendly laws and policies. Physical enforcement might become a substitute when rights are not recognized otherwise.

Pastoral territories are being seriously challenged by internal as well as external pressures, thus creating arenas where many interests and agents interact and conflict. Implications for the sustainable management of rich but fragile rangelands represent serious threats to pastoral livelihoods, which critically rely upon the access to and conditions of the natural resource base.

Overall changes reshaping the global society also carry important consequences for pastoral livelihoods. These include:

- expansion of trade, integration of markets and stronger regional interconnectedness, together with high and increasing demand for animal proteins all over the world;
- a political setting defined by structural adjustments and economic liberalization, implying shifts towards decentralization, devolution and local participation;
- technological developments enhancing mobility and telecommunications, but also the availability of animal health remedies and the drought-resistance of crops;
- climate change, which is reshaping the ecological dynamics of rangelands and affecting the livelihoods of the pastoralists, and also contributing to increase climatic unpredictability and therefore the risks related to crop production;¹³⁷ and
- the 'war on terror' touching upon pastoral lands (e.g. in Afghanistan, Somalia, the Middle East and Saharan zones).

Growing population pressure, together with the shrinking of effective rangelands, also poses an important challenge to the sustainability of future pastoral livelihoods. If we use the 2.8 per cent annual natural growth rate often quoted for pastoral population growth in the Horn of Africa and also for West African Sahelian countries as a reference figure, the pastoral population will double in 25 years and treble in 40 years (even higher rates are recorded from some West African Sahelian countries). Pastoralism is particularly sensitive to population growth because, unlike in cultivated areas, the technical possibilities of changing the productivity of rangeland (changing the output-to-land

¹³⁶ Contribution of Djenontin A. J., Benin

¹³⁷ Contribution of Sylvie C. Mbog, Cameroun

ratio) are limited, especially when compared to yield increases obtainable by technical advances in crop production, and tend to be more resource-degrading, especially with respect to fuel wood.¹³⁸

Unsurprisingly, adequate land rights represent the issue of major concern for pastoralists globally.¹³⁹ The problem and the options for development nevertheless vary from one context to another, and in the same context under different conditions. Diverse experiences result in different outcomes and no generalization can be made, although some lessons have been learned in different regions and at different scales. Mechanisms regulating resource access are critical to ensuring the sustainability of pastoral livelihoods. The problem is particularly prominent in Sub-Saharan Africa, where there is a rising wave of landlessness, insecure tenancy, eviction and violent conflicts. In Central Asia, land privatization reforms are currently shifting land rights from pastoral cooperatives to wealthy individuals and groups, and crowding out the poorest population strata, while also creating room for revitalizing customary institutions. Land titling is also threatening Latin American pastoralists, who are concentrated in specific marginal areas, and their concern is often unaccounted for in the political agenda. Some West African countries have established a 'Code Pastoral' that systematizes pastoral land use rights within a framework of legal protection and in some cases also open the way for securing trans-border movement. The outcomes of state investments and administrative measures in North Africa and the Near East/West Asia have been quite mixed and often depend on the amount of resources injected into the process.

All over the world, mobile herding populations have shown the strong resistance they can put forth in response to externally imposed political structures, resource disenfranchisement and forced settlement efforts.¹⁴⁰ Options for preventing and managing conflicts and mitigating their impact represent a primary concern in all pastoral areas.

Development policies and investments in pastoral areas have followed a linear path that slowly moved from addressing the commodities pastoralists produce (livestock), to a wider approach targeting the management of natural resources (rangelands), to a comprehensive interest in the livelihood of pastoral groups (communities), and with an increasing concern for the social structures and processes that regulate resource tenure (institutions). Traditional analytical lenses that have biased the understanding of pastoral societies for decades, such as the 'cattle complex' or the 'tragedy of the common' visions, are now being supplanted by innovative approaches that challenge old mainstreamed orthodoxies, while bringing fresh elements for analysing ongoing societal dynamics. While there is an increasing recognition and acknowledgement of the role that local indigenous knowledge and socio-political institutions play into defining patterns of sustainable arid lands management,¹⁴¹ efforts are needed to comprehensively translate this new thinking into political and operational approaches. The current belief is therefore that pastoral technical knowledge is adequate and effective, and external development interventions should address policy reforms, institutional change, credit provision and information systems as the way forward to translate sustainable development principles into pastoral areas.¹⁴²

¹³⁸ Contribution of S. Sandford, England

¹³⁹ Refer to the conclusions of the Turmi Global Pastoralists Gathering, 2005

¹⁴⁰ Nori et al., 2005

¹⁴¹ Evers, 1995

¹⁴² McIntire, 1993

Table 5 - The three stages of development interventions in pastoral areas

Period	1950s to 1970s	1980s to 1990s	Recently
Focus	technical aspects of the livestock production system	efforts aimed at readdressing range management	Enabling environment for effective pastoral management
Actions	new breeds, forage production, feeding supplementation, range management, animal health / veterinary systems, availability of groundwater	grazing reserves, group ranching, land titling, herders' organizations,	policy reforms, institutional change, conflict resolution, regional mobility, credit provision, information systems

A number of important principles need to be considered in this process:

- Pastoral communities critically depend on the access to and the conditions of their natural resource base.
- They hold an in-depth knowledge of ecosystem dynamics and are indeed the most vulnerable to trends of land degradation and climate change processes.
- An ecosystem that functions according to non-equilibrium dynamics requires a management style different than one that follows equilibrium ones.
- Patterns of mobility and resource access negotiation are critical to cope with range agro-ecological conditions, implying overall low net productivity as well as variability and unpredictability of resource availability.
- Mobile livestock rearing represent the most effective way of ensuring optimal utilization of range resources, while minimizing livelihood risks.
- Range resources and their management are embedded in a broad array of social relations, negotiations and reciprocal exchanges.
- Pastoral livelihoods critically and increasingly depend on relationships with other societal groups, in terms of resource access, exchanges of goods and services and options for livelihood diversification.
- In pastoral tenure systems a major emphasis is put on the user (needs, rights, claims, entitlements) rather than on the resource. Land rights emphasis is thus upon inclusiveness rather than exclusivity.
- Critical links traditionally exist between the economic, social and ecological dimensions in pastoral resource management.
- What matters is not the system of land tenure *per se*, but the provisions it makes for extensive use of land by pastoralists. Access to and utilization of a resource are here more important than its property.
- Room has to be given for effective decision-making mechanisms at local space and time scales.
- Regional and trans-boundary approaches are more appropriate to enhance range resource management as well as pastoral livelihoods.

Ironically, pastoralists' rights and capacities to sustainably administer rangelands are being recognized at a time when investments in pastoral areas are decreasing consistently. Pastoralists' low population density, remoteness and political marginality make their programmes the prime targets for state retrenchment under structural adjustment programmes, wherein public expenditure curtailment forces the dismantling of public services. Under pressure from the World Bank and the International Monetary Fund, governments are forced to enhance the individualization of land rights in order to create an enabling environment for investment within an economically liberalized setting.¹⁴³ It goes without saying that, as happened with Hardin's premonition, these measures purportedly aimed at 'poverty reduction' will end up reinforcing the causes of the problems they are trying to resolve. On top of that, high degrees of disillusionment and resentment characterize the feelings of pastoral communities towards state or regional institutions, which have often disappointed hope for fairer access to resources and improved livelihoods. This 'trust gap' within the policy context is an important element that should not be underestimated.

¹⁴³ Also refer to Markakis, 2004

Furthermore, within the larger downscaling of national and international assistance, intervention efforts in pastoral areas have become less proactive and more reactive, emerging only when the scale of drought, famine and lack of security becomes too large to ignore,¹⁴⁴ with army interventions, refugee camps and food aid among the leading forms of support. The environmental/desertification concern is giving way to the food insecurity paradigm. The 'disaster and emergency' discourse has been replacing the 'modernization through sedentarization' one and currently seems the most powerful intervention approach in pastoral areas. Within this framework, Livestock Early Warning Systems are currently being developed in different pastoral regions, showing a growing awareness of the need to protect livelihoods through a comprehensive risk management approach.¹⁴⁵

BOX 18 - Livestock Early Warning Systems¹⁴⁶

The risk management approach of these systems aims to preserve livelihoods through the development of a comprehensive early warning and early response system. Examples of Livestock Early Warning Systems are The Turkana Early Warning System in Kenya, initiated by Oxfam and expanded by the World Bank Arid Lands Resource Management Project. This system is being replicated and adapted to the Mongolian environment by the World Bank Sustainable Livelihoods Project in Mongolia. The Système d'information sur le pastoralisme au Sahel was introduced by the FAO initiative Livestock Environment and Development together with the Groupement d'Intérêt Scientifique Pôle Pastoral Zones Sèches.

Resources allocated to treating the symptoms of the problems are undoubtedly larger than those directed towards addressing their root causes, amongst which insecure access to land is an outstanding one. It would make sense in this context to complement these efforts with a comprehensive and effective understanding of the degree to which constraints in pastoral resource access and mobility contribute to the overall vulnerability of pastoralists, especially in times of crisis.

Pastoral resource management is increasingly acknowledged as sustainable, and the rights of herding communities to land are recognized as a primary element of appropriate pastoral development and rangeland management. Despite such recognition, investments and laws often fail to meet on-the-ground expectations for coping with the needs of pastoral mobility and flexibility in resource use. Much needs to be done, and can be accomplished if appropriate decision making can be supported with respect to natural resources in pastoral areas.

¹⁴⁴ Helland, 2000

¹⁴⁵ Contribution from N. Rass, Rome

¹⁴⁶ For more information on the FAO paper 'Policies and Strategies Addressing the Vulnerability of Pastoralists in Sub-Saharan Africa' (2006), see: <http://www.fao.org/ag/AGAinfo/projects/en/pplpi/docarc/wp37.pdf>

Pastoralism links

A number of International organizations and initiatives are also relevant within this frame as they contribute in raising the concern over pastoral land rights:

UNDP Dryland Centre - www.undp.org/drylands/

IIED Dryland Programme - www.iied.org/drylands/index.html

World Initiative for Sustainable Pastoralism – www.iucn.org/wisp/

IISD Pastoralism and Conflict Initiative - www.iisd.org/natres/security/pastoralism.asp

IFAD Livestock and Rangelands Knowledge Base – www.ifad.org/lrkb

IFPRI Collective Action and Property Rights – www.ifpri.org/themes/capri.htm

Arid Lands Information Network - www.alin.or.ke

Drylands Research - www.drylandsresearch.org.uk

International Arid Lands Consortium - www.ag.arizona.edu/OALS/IALC

International Institute for Environment and Development Drylands Programme - www.iied.org/NR/drylands/index.html

Land Tenure Centre - www.ies.wisc.edu/ltc

Oxfam - [www.oxfam.org.uk/what we do/issues/livelihoods/landrights/index.htm](http://www.oxfam.org.uk/what_we_do/issues/livelihoods/landrights/index.htm)

Pastoral Development Network - www.odi.org.uk/pdn/index.html

Programme for Land and Agrarian Studies - www.uwc.ac.za/plaas

Vétérinaires sans Frontières Europa – www.vsfe.org

International Bureau for Animal Research - www.cape-ibar.org

League for Pastoral Peoples - www.pastoralpeoples.org

International Institute for Sustainable Development - www.iisd.org/natres/security/pastoralism.asp

Conseille Mondial des Eleveurs - www.condial.org

Pastoralist Communication Initiative - www.ocha-eth.org

Drylands Coordination Group - [www.drylands-group.org/About DCG/index.html](http://www.drylands-group.org/About_DCG/index.html)

World Alliance of Mobile Indigenous Peoples (WAMIP) – contact: aghaghia@cenesta.org

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