Governance for Peace over Natural Resources

A review of transitions in environmental governance across Africa as a resource for peacebuilding and environmental management in Sudan

UNEP

United Nations Environment Programme

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Acknowledgements

Acronyms

CBD . . . . Convention on Biological Diversity

CBNRM. . . . . Community Based Natural Resource Management

CEAP . . . . Community Environmental Action Plan

CPA . . . . Comprehensive Peace Agreement

DDPD . . . . Doha Document for Peace in Darfur

DLC . . . . Darfur Land Commission

DRA . . . . Darfur Development and Reconstruction Agency

IDEA . . . . International Institute for Democracy and Electoral Assistance

IDP . . . . Internally Displaced Person

IFSD . . . . Institutional Framework for Sustainable Development

IIAS . . . . Indian Institute of Advanced Study

IIED . . . . International Institute for Environment and Development

IWRM . . . . integrated water resources management

MEA . . . . Multilateral Environmental Agreements

NRA . . . . natural resource accounting

NRM . . . . natural resources management

PRSP . . . . poverty reduction strategy process

TEV . . . . total economic value

UNCED . . . . United Nations Conference on Environment and Development

UNDAF . . . . United Nations Development Assistance Framework

UNDP . . . . United Nations Development Programme

UNEP. . . . . United Nations Environment Programme

UNESCO-IHE . . . . . . United Nations Educational, Scientific and Cultural Organisation – Institute for Water Education

UNFCC . . . . United Nations Framework Convention on Climate Change

Executive Summary

Environmental governance in Sudan is in a state of transition. The country is adapting to a number of concurrent environmental challenges associated with population growth, urbanisation, climate change, and the impacts of conflict, amongst others. As part of that adaptation there is a clear need to search for new ways of organising environmental governance, so that natural resources can be managed and accessed by different users peacefully, equitably and sustainably. That search will find that much can be learned from experiences of other states that have faced similar situations and processes of transition elsewhere on the African continent.

This report sets out some potential building blocks for reforming and rebuilding environmental governance in Sudan, drawing lessons from international environmental governance frameworks and from the experiences of other African nations, for example: processes to establish international environmental governance; how they have

Diverse land use in the Wadi El Ku catchment in North Darfur. The clay soils of the wadi can be farmed more intensively than the sandy soils beyond. Managing resource use equitably in this context of variability is a key challenge for traditional and formal governance.

combined customary and statutory mechanisms for natural resource management; and how they have addressed issues of land tenure in peace processes. The review is intended as a resource for all environmental and peacebuilding stakeholders: policy-makers, practitioners, researchers and members of civil society; so that access to natural resources can be managed peacefully in the future rather than becoming a fault-line for violent conflict. Whilst written to inform environmental stakeholders across Sudan, the report has particular significance for Darfur where the need to re-establish mechanisms for sustainable and equitable management of the natural environment has been well recognised: the Doha Document for Peace in Darfur (DDPD) links the need for "developing policies and conducting necessary studies for putting an end to environmental degradation" with the need to "mitigate conflict over water and pasture".[1]

The general principles of good governance are also applicable to environmental governance: transparency, responsibility, accountability, participation and responsiveness (to the needs of people). Environmental governance may be defined as *the norms, rules and institutions that regulate the decisions, actions and interactions of government, civil society and the private sector in relation to the environment.* It is a broader concept than natural resource management (NRM) as it considers the wider environment and a system of governance that includes statutory and customary laws, policies and rules, and the institutions (modern and traditional) that apply and regulate those rules, from the regional to the national to the local level. Environmental governance has an economic and social dimension to it: it must pay attention to issues of social justice as well as economic efficiency. It also has a political dimension in terms of participation, including participation of marginalised resource users. The role of women and the role of nomadic groups are therefore particularly significant. The holistic concept of ecosystems management usefully integrates the social, environmental and economic spheres with the intention of meeting both ecological and human needs now and in the future.

Co-management of natural resources is a particularly useful and practical concept for effective environmental governance. It is "a process of collective understanding and action by which human communities and other social actors manage natural resources and ecosystems together, drawing from everyone's unique strengths, vantage points and capacities".[2] Co-management introduces the concept of interdependence. At the heart of co-management are collective understanding and negotiated agreements, and ultimately power-sharing between different users of natural resources. This, in turn, relates to the concept of entitlement to natural resources – a socially recognised claim which may need to be negotiated.

In reality different users of natural resources often have conflicting needs, which gives rise to conflict – a widespread phenomenon in Sudan. This raises the issue of equity in managing or gaining access to natural resources. Whose entitlement to natural resources is most important and should be given priority? It is widely agreed that the primary users – those who directly depend upon the natural resource for their livelihood, for example farmers and pastoralists in the case of Sudan – should have the greatest entitlement. In practice, however, they may be the least powerful when compared, for example, with international business interests, especially if they are not well-organised. A challenge for effective environmental governance is how to protect and enshrine the characteristics of co-management of natural resources in legal and policy frameworks, how to facilitate participation and determine the entitlements of different actors in the interests of equity, as well as being responsive to the changing context.

The transition from customary systems of NRM to modern, statutory market-based systems is a strong theme in the literature on environmental governance in the Sahel (and elsewhere in Africa). Much can be learned from how this has been managed, or not, across the African continent. Common property regimes (CPRs) – in which natural resources are owned, managed and/or used collectively by several users, either simultaneously or sequentially[3] – have a long history in Africa. Yet for decades they have been poorly understood and their significance (for example in terms of facilitating equitable access to natural resources and sustaining local peace) under-estimated, especially by government planners. CPRs have tended to be undermined by the drive towards

Dagash Right Bank Food Security Scheme in Northern State. Agriculture is a vital component of Sudan's economy. The issue of land use for large schemes often sits at the interface between government and traditional leadership.

private property regimes across Africa dating back to colonial times. But as their value is increasingly recognised, backed up by research, there are now interesting examples of formal policies and legislation that have secured communal management and ownership of land, for example in South Africa, Mozambique and Kenya.

Environmental governance at the global level has much to inform environmental governance at the national and local levels, both in its content and in the process of establishing principles and binding agreements. A review of core concepts of sustainable development highlights the pitfalls of simplistic approaches to development and peace, for example, tree planting alone does not promote peace, but resolving issues of land tenure for contested forestry, establishing participatory forest committees and supporting revenue sharing from forest livelihoods contribute to peace, and tree planting would be an appropriate component

of such projects. Sustainable development requires a balance of economic, social equity and environmental considerations. Equitable participation of all resource users in decision making is inherent in this approach, making a key link with peacebuilding. Much can be done through demonstrating good participatory practices in development and recovery programming in a way that enables communities to build common approaches to equitable environmental governance. These practices need to be supported by efforts to strengthen government capacity as well as by relevant policy frameworks. A coordinated and strategic approach to these activities would enable greater consistency in adaptation and development of environmental governance – as a sustainable approach to reducing conflict over resources.

Land tenure, central to environmental governance, is often one of the most disputed issues. Yet secure

land rights are now widely recognised as critical for peace, stability and economic growth. Land tenure is in constant evolution as society, the economy and settlement patterns change. Customary land tenure systems are in a state of transition across Africa. The challenge is managing this transition so that land tenure systems evolve in a way that is equitable and includes the recognition of women's rights to land. Another challenge is managing the co-existence or merging of customary land tenure with statutory regimes. In Africa this often appears as 'legal pluralism' whereby several legal systems may operate at once. Whereas government policy across Africa used to emphasise the need to replace 'customary' with 'modern' tenure systems, this is now giving way to a recognition that land policies and laws must build on local practice, and that there is no 'blueprint' approach that can be successfully applied to different contexts and cultures. The Kenya Land Policy of 2007 is an interesting example of how customary rights to land can be recognised and protected by statutory frameworks and legislation; unusually it also makes provision to secure pastoralist livelihoods and rights to land.

Tension and disputes around customary land rights have emerged as fundamental grievances in the majority of conflicts in Africa since the 1990s, often because of the unclear status of customary land interests especially in relation to state land. Sudan is no exception. These tensions are driving millions of customary landholders around the world to seek statutory legal recognition of their land occupancy and use rights, with some promising examples of how this has been handled, for example in Tanzania. Land issues are therefore fundamental to peacebuilding, reconciliation and economic rehabilitation in most countries emerging from protracted conflicts. But rather than focus on restorative justice post-conflict, in other words the restitution of property to the displaced, the focus must usually be the reform of property relations where these are at the heart of the conflict, if peace is to last. There is valuable learning about how to deal with land tenure in the peace process from what has worked, or failed, in peace processes around the world. Such learning includes:

1. Engaging at an early stage to ensure that land and property issues are placed high on the peacemaking agenda;

2. Preparing for the 'post-conflict city', not only with planning and formalised programmes but also with programmes that focus on vulnerable sectors and actions that help them to secure rights at least cost;

3. Getting to grips with the tenure status of natural resources and customary lands, which is particularly important in relation to the vulnerable status of unregistered rights, especially in areas where natural resources are attractive to agri-business investors post-conflict.

Customary mechanisms for managing natural resources have a long history in the Sahel, but there is also a history of traditional institutions for NRM being devalued and weakened by modern state policies that do not recognise them. This has also been an issue in Sudan as the effectiveness of the native administration – a traditional institution with NRM responsibilities – has been eroded over time (and for a while in the 1970s was abolished). Many Sahelian countries have experimented with a more decentralised form of government in the last decade, which should, in theory, mean the devolution of NRM to local interests and local communities. In practice, partial implementation of decentralisation has often meant the benefits have been undermined.

Livelihood and NRM systems underpinning pastoralist production suffer from being poorly understood and poorly represented in policy fora. This has been a significant factor where marginalisation of pastoralist groups has occurred. Encouragingly this is now changing, with countries in the Sahel, especially francophone countries, in the vanguard of demonstrating how pastoralist access to natural resources can be secured, thus giving them greater responsibility for NRM. This requires recognition of the economic importance of livestock rearing, taking account of customary procedures in NRM, and reinstating endogenous mechanisms for conflict arbitration and resolution. There is also learning from what has not worked, for example where responsibility for NRM is handed over to pastoral communities they must also be given genuine decision-making powers, and there must be a process whereby pastoralists are fully aware of the reform process and of their rights and responsibilities. New laws alone are not enough; there must be political will to implement those laws.

The thinking and practice behind approaches to sustainable and equitable environmental governance have evolved over time; the African continent, and especially the Sahel, is a rich source of experience of what has worked in different contexts and why. This experience is of immediate relevance to Sudan as it searches for approaches to NRM that move beyond competition between livelihood groups that can quickly become violent in a context of conflict, to approaches that promote interdependence and co-management of natural resources. This report makes the following recommendations:

1. **Processes of consultation for institutional and constitutional reform should be supported with exposure to developments in environmental governance from across Africa.** This is particularly relevant to the **Darfur Internal Dialogue and Consultation** and to the ongoing consultations over the **new constitution** in Sudan.

2. **The concepts of equitable participatory environmental governance should inform peace processes in Sudan.** This would be relevant to the border areas of Sudan and South Sudan; to peace processes that may emerge in **Blue Nile** and **South Kordofan** states; and to the implementation of the **Doha Document for Peace in Darfur**.

3. **The ideas from across Africa in this report should be made available to inform reform and development of environmental policy and institutions in Sudan.** Support should be given to **capacity building for line ministries** with a coordinated approach at both State and Federal level. In particular, the **Darfur Regional Authority** should be supported in its efforts to formulate policies and build institutions that mitigate conflict over natural resources.

4. **Support should be given to projects that pilot and demonstrate innovation and best practice on environmental governance** – inclusive processes such as community based natural resource management, integrated wadi catchment management (and IWRM in general) and community forestry. Where environmental projects (such as tree planting)

are implemented in order to promote peace, then equitable environmental governance at local and regional levels must be emphasised within these projects.

5. **Social and environmental impact assessments of development projects, agricultural projects and concessions, mining and peacekeeping operations should include a sound understanding of the governance context in which they operate.** For example, if hafirs are built through humanitarian aid, then the work should be undertaken in collaboration with **both** formal government bodies such as the state water corporation **and** with local community or traditional leadership to ensure consultation around community access and to clarify responsibilities for management and maintenance of the hafir.

6. **The principles and practices identified in this report should be developed further in the context of thematic areas within environmental governance – to draw out the implications, for example, for water resource management, forestry, agriculture, livestock production and mining.** Important emerging initiatives on this include Integrated Water Resource Management, National Adaptation Plan – (NAP and NAPA), REDD Plus, Integrated Coastal Zone Management, and work on pastoralist livelihoods. In addition to the issues addressed in this report, further attention is needed on ecosystems management and the green economy.

7. **Best practice and experience of participatory policy-making on environmental governance should inform cross cutting issues in strategic plans. These would include capacity building, conflict-sensitive approaches and the environment.** In the UN context these have all been highlighted as cross cutting in the 2013-16 Sudan UNDAF.[4] Other processes would include government strategic planning, the Humanitarian Work Plan and UNAMID/UNCT joint planning mechanisms. These features should be emphasised in the follow up to the Darfur Joint Assessment Mission and the implementation of the Darfur Development Strategy.

1 Introduction

The purpose of researching and writing this review of environmental governance is to provide a resource for policy-makers, project staff, peace-makers and civil society in Sudan. Experience and ideas from across the African continent are presented and discussed with reference to the Sudanese context. Environmental governance is undergoing a process of change in Sudan, with new patterns of interaction between traditional and formal leadership, reform and realignment of ministry mandates, and a growing awareness of the need to link sound environmental practices with local peace building.

This report is one of three documents on environmental governance being prepared by UNEP under its "Sudan Integrated Environment Project". The purpose of the project is to support "improved sustainable and equitable governance, management and use of environmental resources". These reports have been prepared as a source of information, but they are also linked both to ongoing processes of policy reform (Integrated Water Resource Management (IWRM), climate change etc.), and to the implementation of new approaches, for example in community-based natural resource management (CBNRM). Therefore the report aims to provide both a conceptual foundation for policy on environmental governance, and a practical reflection on how these issues have been addressed elsewhere in Africa.

Sudan, as a whole, is in a process of transition. Expert consultations are taking place as a foundation for a new constitution. Organisations of government are being realigned[5]. These changes in government are, in part, a response to the secession of the South, which has radically changed Sudan's natural resource base and hence its economy, and to other transitions within Sudan, some of which have been taking place over many years. As in much of Africa, South America, Canada, Australia and elsewhere, the interaction between traditional leadership and modern government is changing. This is particularly significant to governance relating to land, natural resources and local dispute resolution. Factors such as population growth and urbanisation are creating new networks of relationships and new patterns of human interaction with the natural environment. Compounding these challenges, the impacts of climate change are putting further stress on the interaction between communities and their environment. This brings the focus and terminology of adaptation as a core concern of environmental governance, as communities and authorities adapt to these concurrent processes of change.

Whilst the behaviour of individuals and communities, particularly in terms of the changes made to their livelihood strategies, is one aspect of adaptation, another important lens is the context

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The Forty Days Road is an important traditional route for camel trading between Sudan and Egypt. This herd of camels have travelled 400 km from Abu Hamra and has a further 600 km to go to Assuit. They are approaching the border crossing with Egypt, where modern systems of governance meet the conventions of this ancient route.

created to enable change – the enabling environment. The issue of livelihoods and adaptation, therefore, cannot be considered independently from that of governance. As Sudan responds to the loss of oil revenue from the South, the focus of the economy is increasingly shifting towards agriculture and livestock. For this transition to be promoted in a manner that supports, rather than undermines, local social cohesion in areas of agricultural expansion, a nuanced approach to dialogue between the private sector, traditional and government leadership and local communities is needed. The same applies to the growth in gold mining in Sudan, which is increasing both in its artisanal form and with commercial mining concessions. Gold-mining and agriculture both depend upon the interaction of people, natural resources and land – core concerns for environmental governance.

Within this broad context of change, resolution to, and recovery from conflict is a key concern for many in Sudan. The protracted conflicts in Darfur, South Kordofan and Blue Nile State have undermined environmental governance, sometimes with disastrous consequences. Competition over access to natural resources, especially rangeland and forests, is one of the ways in which the conflict plays out at the local level between different groups (for example between, or amongst, pastoralists and agriculturalists, and between different ethnic groups), often violently, beyond the reach of any functioning environmental governance mechanisms. In Darfur, environmental degradation has been particularly severe around the main urban areas and camps for internally displaced people (IDPs), both of which have seen populations soar since the outbreak of the conflict. As this review demonstrates, effective environmental governance is closely linked to functional governance more generally at all levels. Failing governance has been both a factor contributing to, and a consequence of the conflicts.[6] As Darfur searches for a lasting solution to the conflict at all levels, a key part of the process is to re-establish mechanisms for sustainable and equitable management of the natural environment. The need for this has been well recognised: the Doha Document for Peace in Darfur (DDPD) links the need for "developing policies and conducting necessary studies for putting an end to environmental degradation" with the need to "mitigate conflict over water and pasture".[7] The urgency of this is clear: the prospects for peace and recovery in Darfur depend upon it. This also sets environmental governance as key element to mitigating the risk of conflict elsewhere.

Any solution needs to be informed by the historic strengths and experience of customary systems for NRM, but a solution cannot depend solely on the past for the simple reason that the context has changed so markedly. Indeed, since the decline of the Native Administration in the early 1970s the population of Darfur has multiplied by a factor of seven, and rainfall patterns have changed significantly.[8] Approaches to sustainable and equitable natural resource management that are appropriate for today's challenges, must take into account the successes and failures of the past in Sudan, and learning from experience elsewhere in Africa and beyond. These must be adapted to the emerging pattern of human settlement in Darfur, for example with a more urbanised, more youthful, and more mobile population. This learning can inform government in other parts of Sudan to assist them in their own processes of managing the environment in a way that builds the economic development of Sudan and avoids the dangers of tensions relating to change, which spill over into violence that have been so disastrous in Darfur, Blue Nile and South Kordofan.

Two additional reports in this series on environmental governance are:

- 'Environmental Governance in Sudan – An Expert Review' – this report has been written by two senior Sudanese academics with environmental expertise and provides an overview and critical analysis of policy and legislation for environmental governance in Sudan;

- "Relationships and Resources – a theory of change for governance, resilience and peacebuilding with respect to natural resources". – this report looks at the interaction of institutions working on both peacebuilding and environmental governance, acknowledging that the environmental line ministries ultimately have responsibility for bringing users of resources together to promote means by which they are shared equitably. It also acknowledges the problems of fragmented approaches to

environmental governance. It reviews practical steps to developing and measuring activities to improve the interaction amongst institutions and communities on environmental management.

The scope of the literature reviewed in this study is broad, but has been selected according to its relevance to current conditions and challenges in Sudan today. The report starts by reviewing the most commonly-used definitions of governance (section 2), and then reviews some of the wider literature on environmental governance and natural resource management, exploring key concepts such as property regimes and entitlements (section 3). Section 4 explores how development of international environmental governance informs national governance, both in terms of its content and its development. It reviews the links between social equity, economy and environment at the core of Sustainable Development based agreements with a view to illuminating links between development and peace. It sets this in the context of Darfur and describes steps to developing shared pathways towards sustainable development and by extension conditions conducive to peace relating to natural resources.

Land tenure is central to environmental governance. A large amount of research has been carried out on land tenure around the world, producing a rich literature. Section 5 focuses on two aspects of land tenure that are particularly relevant to Sudan: how customary land tenure is evolving within Africa, and experiences of dealing with land tenure post-conflict as well as in the peacebuilding process. What can be learned from the experience of environmental governance in other Sahelian countries is the focus of section 6. This covers customary mechanisms for environmental governance and shared management of natural resources, and decentralisation of government and natural resource management. Pastoralism as a system of production practised across the Sahel has long been dependent on common property regimes, yet these can be challenging to, and challenged by, formal state-based approaches to environmental governance. Some of the literature on pastoralism in the Sahel and on securing pastoralist rights is reviewed in section 7. The concluding section 8 provides an overall summary of the implications of this literature review for ongoing debates on environmental governance within Sudan and especially Darfur.

Box 1.   UNEP's Sudan Integrated Environment Project (SIEP)

UNEP's programme in Sudan aims to support the development of practical and workable solutions for the management and governance of the environment in Sudan. This review is designed to accompany the practical interventions being made by UNEP and its partners. The combined objective is to introduce trial and communicate potential adaptations of environmental governance that may then be adopted, modified or rejected by Sudanese decision makers. The work is led by our Sudanese hosts and counterparts as part of UNEP's overall support to the Ministry of Environment Forests and Physical Development, and the UN Country Team. SIEP is undertaken with financial support from UKAid.

The themes on which UNEP focuses in Sudan are those with governance issues at their core – where numerous livelihood groups depend on the same natural resource and shared access to it needs to be negotiated. They comprise: water resource management, forestry, community environmental management, climate change and pastoralist livelihoods (in collaboration with Tufts University). The synergy between institutional work and implementation is designed both to develop 'buy in' for processes and to ground them in the realities of programme implementation.

For more information see www.unep.org/sudan

2 Defining Governance

A review of environmental governance should start by revisiting the concept of governance, a concept that has gained growing attention in policy-making and debates about international development since the mid-1990s. At that time it became increasingly apparent that there is a "vital connection between open, democratic and accountable systems of government and respect for human rights, and the ability to achieve sustained economic and social development" (OECD/ DAC, 1995: 5). 'Good governance' became a stated development objective.

Definitions of governance abound. Box 2 presents three of the most widely-used definitions from UNDP, the European Commission (EC) and the World Bank, respectively. Common themes in these three definitions relate to how society organises itself and about the relationship between the state (or authority) and its citizens. The UNDP definition usefully distinguishes between three spheres in society: the state, civil society and the private sector; these distinctions are used throughout this literature review. Words such as *rules*, *institutions*, *policies*, *processes* and *traditions* are used to describe how society manages its affairs, through which interests are articulated and differences negotiated. Whereas the emphasis in the UNDP definition is on how society manages itself, the EC and World Bank definitions are more state-oriented.

Box 2.   Definitions of Governance

UNDP

Governance is the system of values, policies and institutions by which a society manages its economic, political and social affairs through interactions within and among the state, civil society and private sector. It is the way a society organises itself to make and implement decisions— achieving mutual understanding, agreement and action. It comprises the mechanisms and processes for citizens and groups to articulate their interests, mediate their differences and exercise their legal rights and obligations. It is the rules, institutions and practices that set limits and provide incentives for individuals, organisations and firms. Governance, including its social, political and economic dimensions, operates at every level of human enterprise, be it the household, village, municipality, nation, region or globe.

UNDP Strategy Note on Governance for Human Development, 2004

The European Commission

Governance concerns the state's ability to serve the citizens. It refers to the rules, processes, and behaviours by which interests are articulated, resources are managed, and power is exercised in society. The way public functions are carried out, public resources are managed and public regulatory powers are exercised is the major issue to be addressed in this context. In spite of its open and broad character, governance is a meaningful and practical concept relating to the very basic aspects of the functioning of any society and political and social systems. It can be described as a basic measure of stability and performance of a society. As the concepts of human rights, democratisation and democracy, the rule of law, civil society, decentralised power sharing, and sound public administration, gain importance and relevance as a society develops into a more sophisticated political system, governance evolves into good governance.

Communication on Governance and Development, October 2003, COM (03) 615

World Bank

We define governance as the traditions and institutions by which authority in a country is exercised for the common good. This includes (i) the process by which those in authority are selected, monitored and replaced, (ii) the capacity of the government to effectively manage its resources and implement sound policies, and (iii) the respect of citizens and the state for the institutions that govern economic and social interactions among them.

http://go.worldbank.org/MKOGR258V0 (accessed on 19 October 2011)

UNDP has identified five principles of good governance[9]:

- *participation and voice* – related to consensus-orientation, mediating differing interests to reach a broad consensus on what is in the best interest of the group and, where possible, on policies and procedures;

- *accountability* – this also includes transparency, in terms of accessible information, processes and institutions;

- *equity* – which relates to Rule of Law (legal frameworks should be fair and enforced impartially, particularly the laws on human rights);

- *direction* – this relates to strategic vision: leaders and the public have a broad and long-term perspective on good governance and human development, along with a sense of what is needed for such development;

- *performance* – institutions and processes should be responsive in trying to serve all stakeholders, and should be effective and efficient, producing results that meet needs while making the best use of resources.

These have been adapted by UNHCHR[10] as:

- transparency;

- responsibility;

- accountability;

- participation;

- responsiveness (to the needs of the people).

UNESCO-IHE takes a more practical approach to defining governance: *Governance is the process of taking care of public interests of general application through leading, ruling planning, managing, controlling, correcting the organisational resources.*[11]

They define the scope of each part of these as:

- **Leading** – establishing vision, policy and strategy;

- **Ruling** – setting up legislation and regulations;

- **Planning and Management** – setting and implementing strategy, designing and implementing operations;

- **Controlling** – defining standards, issuing licences and permits;

- **Correction** – enforcement and sanctioning.

That there is a wide range of definitions of governance can be accounted for perhaps by the variety in the contexts, mandates and cultures of the organisations that issued those definitions. In different cases there is a different balance of emphasis, either focusing on the relationship between the government and citizens, or between individuals or groups of citizens. In the latter case, the government has a role in creating the environment in which these relationships are managed. Within the same context different themes of governance will also reflect different aspects. For example, urban waste management reflects the relationship between the state (the municipality) and the citizens (urban residents who pay their rates). In contrast, governance of a community forest has a greater emphasis on the horizontal aspect of citizens organising themselves to achieve a common benefit. In this context, the role of the government is important in enabling and overseeing this collective activity but takes less of a role itself. This balance of a vertical social contract where government provides services and a more local horizontal social contract, regulated by government (and so again part of the contract) is an important theme behind environmental governance.[12]

The UNESCO-IHE definition is given on a water management course and reflects the key processes in formal water governance with an emphasis on the role of government. In the case of the governance of the water sector, there is a strong element of the relationship between government and citizens through the provision and maintenance of infrastructure, but also a significant element in which government regulates the interaction of different users. These two elements meet in the process of consultations over investment planning for the provision of infrastructure. In rural Sudan there is an additional complexity with the relatively common practice of communities being responsible, in part, for maintenance. The effectiveness of these

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A public consultation on IWRM policy chaired by the deputy governor of South Darfur in December 2011. Lessons learnt from South Africa's IWRM experience are being reviewed to inform the process of policy development in the state.

processes has a considerable bearing on the overall relationship between communities who share water resources and their relationship with government authorities.

Any given government may need to govern different aspects and different areas with different relative emphases on these aspects of governance. In Sudan, different conditions prevail in rural and urban environments and different approaches to environmental governance prevail.

Two further points should be clarified before we can be satisfied that we have built an adequate basis on which to discuss environmental governance. The first is the distinction between environmental governance and NRM. This report relates to the environment rather than to natural resources and so includes concerns relating to the management

of pollution. Pollutants are part of the environment but are not considered a resource. Therefore the word *environment* has a larger scope than the term *natural resources*. The second point is the distinction between situations in which the management and governance of the environment is administered by one group of people – such as a livelihood group – and situations in which it is administered by a number of groups. In cases of the management, sustainability, in a more limited sense, is the principal focus; in cases of the latter, sustainability and equitability are joint concerns. Equitability in this context requires the consideration of issues addressed in governance agendas such as the rule of law, participation, and processes of democracy. Environmental governance therefore has a broader role overall than natural resource management, which is technically a more technically issue.

3 Defining Environmental Governance

3.1 What is environmental governance?

Current international debates around 'environmental governance' date back to the treatise of the 'tragedy of the commons' in the 1960s (Hardin, 1968). From early on these debates have been closely associated with issues of environmental degradation and how to prevent it. Much of the current literature on environmental governance takes a global perspective and is focused on international agreements and conventions[13], see section 4 below. At the local level the literature focuses more on NRM with considerable attention paid to informal governance solutions. See, for example, Borrini-Feyerabend et al (2007), one of the most substantial texts on NRM, extensively drawn on here because of its relevance to the Sudan context. Borrini-Feyerabend et al capture some of the tensions between global and local governance mechanisms, highlighting how local users and local communities are increasingly caught in the contradiction of global governance systems whereby global rules and the concentration of economic power can undermine community control over natural resources despite trends towards decentralisation of government which usually aim to empower at the local level.

Much of the literature refers to the environment as a holistic concept beyond the natural environment to include, for example, culture. Borrini-Feyerabend et al (2007) define natural resources as:

> those components of nature that are being used or are estimated to have a use for people and communities. In this sense, what is a "resource" is culturally and technologically determined. Cultures shape demand: until they create a use for it, a resource remains latent. Similarly, the development of technology can promote new uses and thus discover new resources (e.g. oil and natural gas). (ibid:7)

A number of authors are critical of how 'successful' environmental governance and NRM are defined

in economic terms, with collateral damage in terms of human and cultural losses seen as inevitable side-effects. This is explored further below. The concept of ecosystems management is useful in integrating the social, environmental and economic spheres with the intention of meeting both ecological and human needs in the future. Thus, it is a holistic approach and may be applied to manage geographically-defined ecological systems.[14]

In terms of the overall aims of an effective NRM system, Borrini-Feyerabend et al (2007) make a useful contribution. An NRM system regulates the interplay between human activities and the natural environment. Its major outputs include:

1. human survival and the satisfaction of human needs through productive activities e.g. farming, livestock production, timber production;

2. the transformation of portions of the natural environment into a domesticated environment, more suited to being exploited (e.g. clearing of agricultural land, management of grazing land and forests);

3. the control of natural environmental hazards (flood prevention, fighting vectors of disease);

4. the control of degradation and hazards caused by human pressure on the environment.

How this is organised and regulated is the essence of environmental governance.

Paavola (n.d.) unpacks environmental governance into a number of generic functions:

1. exclusion of unauthorised users;

2. creation of entitlements to regulate authorised resource use;

3. provisioning of joint-impact or non-rival goods;

4. sharing the benefits of resource use and the costs of its provisioning;

5. monitoring of resource users;

6. enforcement of the rules of resource use;

7. resolution of conflicts over resource use;

8. collective choice for the modification of governance solutions.

How these functions are organised depends on whether the governance mechanisms are customary, in which case the community may perform a number of these functions, or formal, in which case there is more likely to be a division of labour, for example between legislatures which make the rules and specialised agencies which monitor and enforce them.

Paavola (n.d.) also provides a categorisation of institutional rules associated with environmental governance functions, as follows:

1. rules of exclusion; to ensure unauthorised access is curtailed;

2. entitlement rules regulating authorised resource use and resolving conflicts between legitimate users;

3. monitoring rules;

4. decision-making rules; to determine how decisions can be made and who can participate.

His further contribution is in introducing institutional economics to environmental governance. He rejects some of the conventional economic concepts associated with environmental governance, such as the concept of 'externalities' for which no price is paid and no compensation received. Instead, he introduces the idea of interdependence, where the choice of one agent influences that of another. He makes the point that environmental governance is "a matter of social justice rather than economic efficiency, demanding greater emphasis on public participation as the foundation of… political legitimacy" (ibid: abstract). Environmental governance is 'best understood as the resolution of environmental conflicts by establishing, reaffirming or changing environmental governance institutions', which in turn establish, reaffirm or redefine entitlements (ibid: 1). This way of thinking seems particularly appropriate and useful in the context of rural Sudan where there is a high level of interdependence between the livelihoods of different groups and issues of social justice which have emerged prominently during the conflict.

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Cattle waiting to be watered at a traditional well in Garba Tula District, Northern Kenya. This well used by numerous pastoralist livelihood groups and is governed by a combination of customary rules and new arrangements including the appointment of well managers. Darfuri government stakeholders visited this location as part of a knowledge sharing initiative on co-management in environmental governance.

The concept of interdependence is developed by Borrini-Feyerabend et al (2007) through the increasingly popular theme of 'co-management' of natural resources: "a process of collective understanding and action by which human communities and other social actors manage natural resources and ecosystems together, drawing from everyone's unique strengths, vantage points and capacities" (ibid: xxx). They provide a number of characteristics of co-management systems which could serve as a checklist for effective environmental governance, see Box 3. At the heart of the process lie collective understanding and negotiated agreements: it is about sharing power. The challenge for environmental governance is to protect and enshrine as many of these characteristics as possible in legal and policy frameworks.

Practitioners can build these principles into projects of various scales. An example of co-management at the local level in Sudan is the "Community Environmental Action Plan" (CEAP), developed with support from UNHCR[15] for refugee camps in Eastern Sudan to reduce tension between refugee and host communities in their use and management of natural resources. The CEAP approach uses a structured collective processes of assessment, decision-making and planning of NRM for the common benefit of all participants. These processes include participatory rural appraisals, community mapping, and vision building exercises to compile the details of what the common good actually is. Then they look towards the structured and monitored implementation of a joint plan to achieve the benefits that have been envisaged during the consultation process.

Box 3.   The characteristics of co-management systems

Co-management capitalises on multiplicity and diversity: partnership should build upon complementarity between groups; the challenge is to ensure that the pay-offs for those involved are greater for collaboration than for competition

Co-management is usually multi-party but also multi-level and multi-disciplinary: the emphasis is on inclusiveness, but this must be balanced by the need to contain transaction costs

Co-management is based upon a negotiated, joint decision-making approach and some degree of power-sharing and fair distribution of benefits among all institutional actors: this may require some redressing of power imbalances in society

Co-management attempts to achieve more equitable management: thus, all relevant actors must be involved, according to their entitlements (see below)

Co-management stands on the principle of linking management rights and responsibilities: when these are de-linked, both are likely to be eroded

Collaborative management stands on the concept of common good, the trust that it is possible to follow a course of action that harmonises different interests while responding, at least to some extent, to all of them: an inclusive approach to identifying institutional actors and negotiating management agreements is necessary in order to identify the common good, and for it to be achieved

Co-management is part of a broad social development towards more direct and collaborative democracy: this requires some organisation of civil society, that must assume increasingly important roles and responsibilities

Effective co-management depends on quality of public opinion: it must recognise differences in opinion while building on underlying common interest. Free flows of information and transparency in management processes are essential for this.

Co-management initiatives can take on a large variety of shapes and forms and need to be tailored to fit the unique needs and opportunities of each context: for example, approaches to stakeholder participation must be sensitive to the historical, cultural and socio-political context.

Co-management builds upon what exists, in particular local, traditional institutions for resource management: these should be the starting point, while still drawing on the creativity of new management partners

Co-management is a process requiring on-going review and improvement rather than the strict application of a set of established rules: its most important result is not a management plan but rather a management partnership that has the flexibility to respond to varying needs.

Source: Borrini-Feyerabend et al, 2007: 103-105

A community mapping exercise in Maba, North Darfur. This is part of the development of a Community Environmental Action Plan (CEAP). The community representatives use the map to negotiate a shared vision for resource use in the village.

Elsewhere in Eastern Sudan, participatory environmental management is being implemented by the Eastern Nile Water Management Project which includes activities in Ethiopia, Egypt and Sudan. The project addresses NRM, water harvesting and sustainable agriculture, income generating activities and capacity building. A key component of the project is undertaken by community watershed team, which acts as a sub-committee of the village development councils. In Sudan work is being undertaken in Lower Atbara, Dinder National Park and Ingessara in Blue Nile State. In North Darfur, a local NGO, the Darfur Development and Reconstruction Agency (DRA) and Practical Action have taken up similar approaches to manage natural resources at the community level.[16] Section 6 below presents some more positive examples of co-management of natural resources.

Box 3 illustrates Narayanan and Chourey's (n.d.) point that environmental governance is not just

techno-managerial but also political: "democratic governance of natural resources… demands a conceptual understanding inclusive of mobilisation" (of marginalised members of society) (ibid). It must ensure that the interests of the weakest actors (often local communities) are protected by reliable conflict management, arbitration and legal enforcement procedures and by the judicial system: 'it is only in the political moment of acceptance and recognition by society that those interests and concerns become "entitlements"' (Borrini-Feyerabend et al, 2007: 60)[17]: In short, the principles of co-management match some of the basic principles of good governance mentioned above, such as equity and ensuring participation and voice. Responsiveness is a feature of effective NRM emphasised by a number of authors – responsiveness not just to the needs of the people, but also to demographic, economic, social and cultural changes that affect environments and human communities. Indeed, Borrini-Feyerabend

et al (2007) observe that conventional governance structures based on centralised and hierarchical authority are increasingly inadequate and that more flexible institutions are needed. They go as far as to say that: 'a limited space of anarchy ("… absence of fixed governing structures")[promotes] democratic experimentalism, which, in turn, is likely to foster more resilient and stronger societies' (ibid: 62). This is an interesting statement when reflecting upon the way that particular ethnic and livelihood groups in Darfur are negotiating agreements with each other – agreements that include elements of NRM – in the current Darfur conflict as governance has broken down; they are often making these agreements outside the structures of formal governance. How democratic this 'experiment' is requires further investigation.

Drawing on all of the above, this review proposes the following working definition of environmental governance:

the norms, rules and institutions that regulate the decisions, actions and interactions of government, civil society[18] and the private sector in relation to the environment.

This is represented in the model in Figure 1. This captures the dynamic between the rules, laws and policies (whether formal, statutory or customary) that regulate and determine human behaviour towards the environment, the institutions that make the rules and monitor their implementation (whether part of the modern state or a higher regional body, or part of traditional community institutions), and the natural environment itself which is also constantly changing. It is the interaction between the three points of the triangle that determines human action in relation to the environment. In terms of the three pillars of the Institutional Framework for Sustainable Development (IFSD) – see Section 4 below – this captures the interaction between the social (people), economic (including markets) and

Figure 1. Analytical model of Environmental Governance

Governance for Peace over Natural Resources
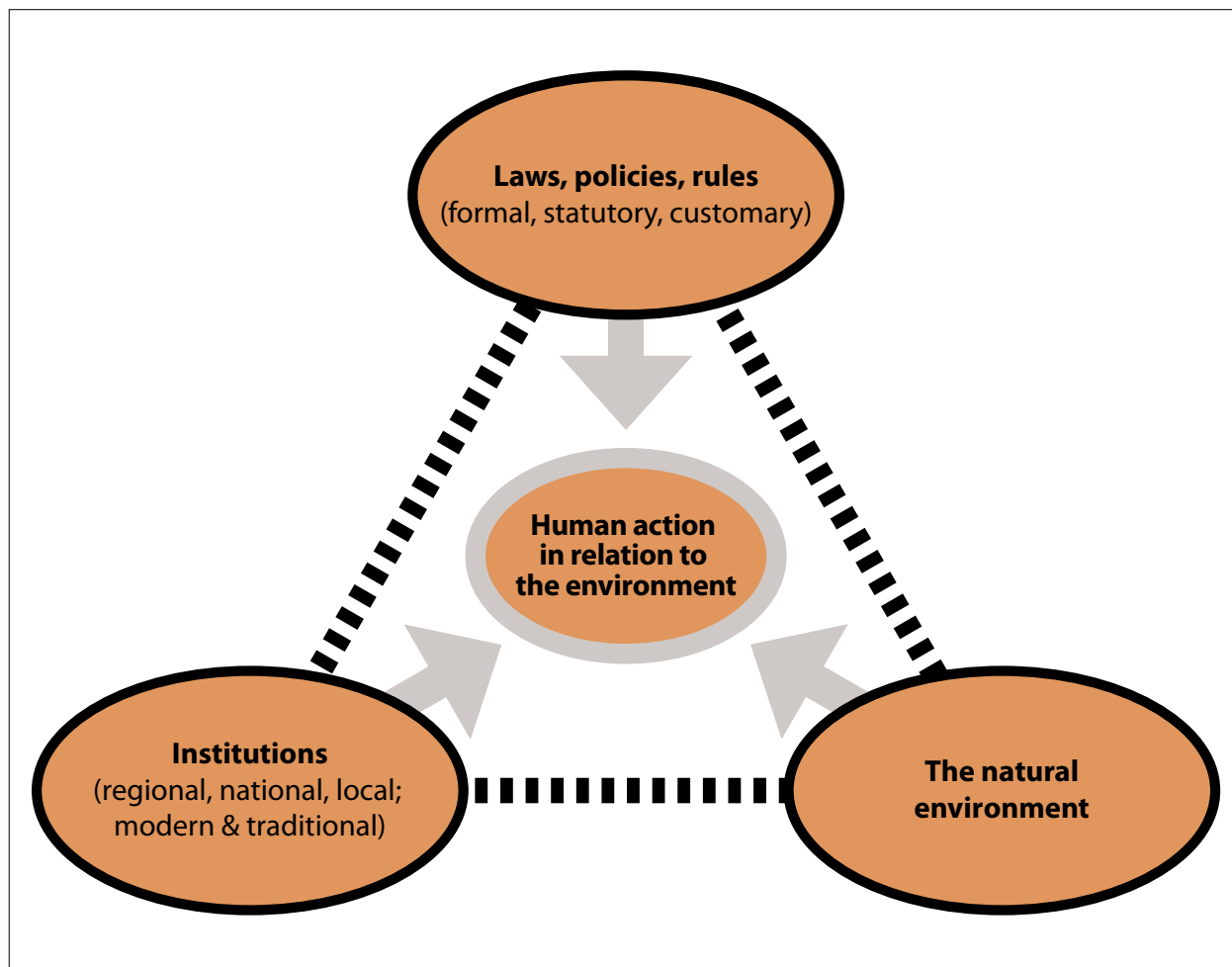
environmental spheres. Sustainable and equitable environmental governance means sound environmental stewardship, a resilient economy, and equitable outcomes for society.

3.2 Property regimes and entitlement: key concepts in environmental governance

A commonly used typology for property regimes comprises four categories:

- open access or *res nullius;*

- common property;

- state property;

- private property.

(Bromley and Cernea, 1989)

A common property regime falls under the jurisdiction of a community of users, usually a residential group small enough for the sanction and pressure of peers to be significant in self-regulation. To be sustainable it must have a defined membership, e.g. a pastoralist group, or kinship group (Murphree, 1997 in Borrini-Feyerabend et al, 2007).

Some authors have called for a modification of this four-category typology by a "scheme which identifies private ownership, collective ownership and *res nullius* as the main type of governance solutions" (Paavola, n.d.); for example the state can be a private owner (e.g. state-owned farms in Sudan), or a participant in common ownership arrangements (for example as custodian of forest reserves in Sudan through the Forestry National Corporation). Murphree (1997) makes the point that ownership is never total or unconditional, but is rather a set of entitlements to use a territory or set of natural resources with some limitations according to the entitlement of others.

The concept of entitlement is key to NRM and environmental governance and is given extensive coverage in the literature.[19] Borrini-Feyerabend et al (2007) describe the entitlement to manage land or to a set of natural resources as a social construct – i.e., a socially recognised claim – which may be determined by statutory law, customary law or the basic tenets of social life. Leach et al (1997) developed the concept of an extended entitlement approach, which "sees entitlements as the outcome of negotiations among social actors, involving power relationships and debates over meaning rather than simply the result of fixed moral rules encoded in law". Power can be exercised coercively (for example through the gun and threat of violence, as has happened during the conflict in Darfur), it can be exercised through the power of position (for example, a government official in authority), through economic power (commanding financial resources), or through political power (for example, having a powerful supportive constituency).

Closely related to the concept of entitlement is the issue of equity in managing, or gaining access to natural resources. If all social actors do not deserve the same entitlement, then to whom should priority be given? Different authors make different distinctions between actors, as explained in Borrini-Feyerabend et al (2007):

- Murphree (1994) distinguishes between community institutional actors, government institutional actors and non-governmental institutional actors, arguing that the first set of actors – local actors – should have a pre-eminent position in management decisions.

- Ostrom (1990) distinguishes between resource 'appropriators' (that harvest or pull out resources) and resource 'providers' (that create, maintain or restore a resource). (NB one actor can be both appropriator and provider). Providers should have stronger grounds to claim resource entitlements than pure appropriators.

- Gorman (1995) distinguishes between primary users (who directly depend upon the resource for their livelihood, for example farmers and pastoralists in Darfur), and secondary users (whose use follows harvesting, for example livestock traders and consumers of meat in Darfur).

Common to all three arguments is the notion that the local primary user (as long as they are also playing a 'provider' role) should have the

The Jizzu grazing areas in North Darfur. Grazing in this area is very localised and dependent on recent rains. Mobility is an essential strategy to capitalise on the availability of resources. Camel herders use this area in the summer months. These common property resources are controlled by traditional leadership. The non-monetised benefits derived from these areas often mean that they are not well reflected in land use planning and management.

greatest entitlement (and the 'local primary user' usually includes both rich and poor households within the local community).[20] But in practice, the local primary users may be the weakest in terms of power, whether political or economic. Some primary users may actually be 'powerless' if they are not sufficiently organised.

It is for this reason that many customary and community-based NRM systems have been "overlooked, negated or simply crushed in the name of modernisation and development" (Borrini-Feyerabend et al, 2007: XXIX). A strong theme in this text and in the literature related to the Sahel is that of the transition from customary or indigenous systems of NRM to modern, statutory market-based systems. The literature notes the different motivations of each, different cultures and sources of power, and of how it can go wrong.[21] Co-management

of natural resources, described above, has been offered as an effective alternative.

3.3 Common property resources

Cotula et al (2005: 1) define the commons as "natural resources that are owned, managed and/or used collectively by several users, either simultaneously or sequentially; irrespective of the economic nature of the resource (whether 'common pool' or not) and of the property regime formally applicable to it (i.e. even if legally-owned by the state)". However, many systems that manage the commons are a blend of different property regimes – common, private and state property.[22] This is clearly true in Darfur, where the three regimes are juxtaposed and overlap.

Common property regimes or management systems can be said to exist when an identifiable group controls the rights to use resources, and designs and implements rules to define who may use the resources and how. Common property regimes are often clearest in the case of pastoralist property regimes (see Lane, 1998). Members of the group limit their individual claims in the expectation that others will do the same. The literature on common property resources emphasises the importance of homogeneity amongst resource users in order for common property regimes to work, with high levels of trust and social cohesion – conditions that are rarely met in the Sahel where pastoralists and farmers are often using the same natural resources. Indeed, where common property regimes have been disrupted or broken down, open access systems may develop where access to resources is uncontrolled resulting in severe environmental degradation. Situations such as these are often then used as evidence in support of an argument for replacing common property regimes with privatisation (Ostrom, 1990).

Promoting private property regimes in Africa has a long history dating back to colonial times when many customary land tenure systems based on common property were dismantled in order to expropriate land. This trend has continued since, sometimes with renewed momentum in post-colonial governments. In terms of current policies, Cotula et al (2005) point out how Poverty Reduction Strategy Processes (PRSPs) rarely acknowledge the importance of the commons: policy-makers pay little attention to the significance of the commons to people's livelihoods, and the 'tragedy of the commons' argument (e.g. overgrazing) is still used by governments across the world, to undermine local management systems and to claim control over natural resources. However, there is a growing body of literature from the Sahel that documents positive examples of co-management systems of common property, much of it published by the International Institute for Environment and Development (IIED). See section 6.1 below.

Benefits from the commons are "notoriously underestimated due to their often non-monetarised nature" (ibid: 3), for example in terms of equitable access, promotion of local peace and cultural identity.[23] In francophone West Africa for instance, common use is rarely seen as fulfilling the requirement of 'mise en valeur' (meaning to be developed economically), which justifies protection of land (although the passing of pastoralist legislation is beginning to change this in some places as described in section 6.3 below).[24]

While some common property regimes have survived because of the relative homogeneity of resource users and because there have been no outsiders interested in grabbing the resources, there are common property regimes which have survived in competition with other systems, for example the Dina in Mali and European mountain pastoral commons.[25] Cotula et al (2005) explore what policy and legal frameworks exist to secure the commons against resource grabbing by elites. In so doing they recognise firstly that such frameworks must reconcile competing resource uses – for example between pastoralists and agriculturalists – and secondly that the frameworks must enable negotiation between the communities and any private sector operators that are interested in using the resources in question. Key to achieving this is strengthening the negotiating power of the local communities by ensuring that they have secure resource tenure. It is also important that policy and legislative frameworks are accessible. 'Designing mechanisms through which policy makers and legislators can learn from and build on these local processes *(e.g. where development agencies have supported local resource users)* is one of the key challenges confronting the commons in Africa' (ibid: 7).

Despite the popular 'tragedy of the commons' argument and pressures to privatise land, customary mechanisms for managing the commons have proved resilient in many places. In some countries policies and legislation are now securing communal management and ownership, for example South Africa's Communal Property Associations Act, through which communities can hold land in common, the Mozambique Land Act of 1997 that allows demarcation and registration of community lands, and in Scotland, the Land Reform Act of 2003 that gives communities the right to buy land if/ when it comes onto the market (Cotula et al, 2005).

The challenges for common property regimes (and for communal forms of land tenure), identified by Cotula et al (2005) are the following:

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A livestock migration route on the bank of the Ewaso Ng'iro in Samburu, Northern Kenya. The route on the right bank is more heavily grazed than the area off the route on the far side of the river. The area is managed collectively under the new laws that have been developed for Kenya's arid areas.

- *How are 'communities' defined?* They are rarely homogenous groups, but instead are differentiated according to livelihood groups, power, gender, age, income. Also membership of user groups may be fluid and include non-resident groups e.g. transhumant pastoralists;

- *What rights should be secured?* Usually this relates to rights of access, management and use, but land tenure systems, often imported during the colonial era, tend to favour private ownership;

- *How can greater tenure security be provided?* Recognising customary rights and building on local practices are key 'as they enable one to go beyond the chaotic superposition of different tenure regimes (statutory, customary or combinations of both) that characterise the commons in much of Africa' (ibid: 5), including Darfur. Options range from the codification of customary law to more flexible ways of

recognising customary rights and integrating them in the formal legal framework. This may mean a hybrid system that combines elements of customary and formal. But the authors make an important distinction between recognising customary rights, and uncritically endorsing traditional authorities which may be unaccountable, politicised and gender-blind.

Ahmed's review of case studies in Sudan summarises the relative advantages of common property rights as: 1) they accommodate environmental uncertainty, 2) they are often more equitable and social than private property rights, as community participation and exchange is greater, and 3) they are flexible and therefore potentially useful in contexts of multiple land use. On the other hand they suffer from the following disadvantages: 1) difficulty of exclusion 2) difficulty of monitoring and sanctioning, 3) limited incentive for individuals to invest, with resulting limited efficiency (Ahmed, 2010:18).

4 Sustainability, Development and Peace

4.1 The three pillars of Sustainable Development and Peace

The links between sustainability, development and peace are an area of vigorous debate amongst decision-makers and commentators on Darfur. Both the core concepts of sustainable development and the way they have been established in global environmental governance have relevance for national and local level environmental governance. The 1992 Rio Declaration highlights that "peace, development and environmental protection are interdependent and indivisible"[26] endorsing the analysis of the World Commission on Environment and Development's[27] report 'Our Common Future' (1987). These two documents are foundational to the on-going development of international governance and of national governance across the world. The report acknowledges that "Environmental stress is seldom the only cause of major conflicts within or among nations" but makes the link between peace and development by starting with the now well-known and widely accepted definition of sustainable development:

> Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

This starting point takes the notion of continuity and frames it with respect to the competing needs of groups of people now and in the future, linked by the fact they depend on the same natural resources. If a group exceeds the carrying capacity[28] of resources they depend on, then these resources will not be available for future generations. Therefore they assert:

> At a minimum, sustainable development must not endanger the natural systems that support life on Earth: the atmosphere, the waters, the soils, and the living beings.

In terms of rights this is referred to as intergenerational equity. However, the commission took this

An abandoned farm near the river Nile at Sabaloga. The intensive farming of this area caused a decline in soil fertility, so the land has now reverted to desert and can no longer be usefully used for agriculture.

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further in terms of its implications for rights of groups at the given time:

> Even the narrow notion of physical sustainability[29] implies a concern for social equity between generations, a concern that must logically be extended to equity within each generation.

This step creates the link between sustainability, natural resources and peace. At the centre is the notion of social equity in the use of shared resources. Thus emerge the "three pillars of sustainable development" – balancing social equity or rights, economic concerns (the efficient exploitation of resources) and environment. These are referred to as the three Es (**E**quity, **E**conomic efficiency, **E**nvironment).

The importance of this balance is illustrated when contrasted with unsustainable practices. For example, a failure to recover costs makes a project economically unsustainable; excessive pollution or over abstraction of resources makes it environmentally unsustainable; and both economic and environmental impacts can render it socially inequitable – a third form of unsustainability.

Balancing the three Es is particularly challenging in contexts such as Darfur, where there is a scarcity both of environmental and financial resources. The balance of social equity becomes all the more sensitive if there is so little margin for error in resource use and in economic viability of initiatives. A lack of social equity is clearly a trigger for conflict.

Our Common Future does not talk in terms of an inelastic relationship between the carrying capacity of natural resources and the population supported. In particular it discusses how technology and 'organisation' can influence how productively resources can be used. Good governance relates to Brundtland's concept of 'organisation' and can be seen as enhancing the prospects for sustainable development.

This is highly relevant to how the transition from a humanitarian to recovery or development framework is designed, as well as to initiatives relating to resource use and peace. "Water for peace" is a familiar slogan in Darfur. However, the initiatives have often tended to focus on assets

(e.g. "10,000 wells for Darfur"[30]) with less attention on arrangements for good governance that are key to peace and to sustainable development.

4.2 Building governance – national and global parallels

Brundtland was clear in that the reason a set of principles was needed that addressed environment and development was because of increasing resource competition:

> National and international law is being rapidly outdistanced by the accelerating pace and expanding scale of impacts on the ecological basis of development. Governments now need to fill major gaps in existing national and international law related to the environment. (par 97)

This resonates with the context in Sudan, particularly Darfur. As quoted in the introduction to this report, the Doha Document for Peace in Darfur calls for the development of "a framework for equitable access by various users of land and water resources". The development of the international process (see Box 4) therefore has parallels with a similar process needed in Darfur (and underway in parts, although not well coordinated) and elsewhere in Sudan. These include:

1. An overarching cycle of analysis, consultation, consensus and commitment builds the regulatory framework for participatory environmental governance.

A shared process (World Commission on Environment and Development 1982-1987) tabled a contextual analysis, rationale and framework for response and a set of draft principles for consultation ('Our Common Future'). This consultation took place between 1987 and 1992 and culminated in the UN Conference on Environment and Development (UNCED) in Rio de Janeiro in 1992, at which the Rio Declaration on Environment and Development was endorsed comprising a modified version of the principles tabled in 1987. This declaration is reproduced in Annex 1. International political commitment was reflected in the three legally binding conventions that came as a result

Box 4.   Multilateral Environmental Agreements[31] – Milestones to Rio +20

1972 UN Conference on the Human Environment. Stockholm, UNEP established.

1973 Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) adopted – Over 30,000 species protected.

1982 The Montevideo Programme adopted by UNEP Governing Council setting priorities for global law-making. This led to major agreements, including the Basel Convention on the Trans-boundary Movement of Hazardous Wastes and their Disposal (1989; 178 states), Stockholm Convention on Persistent Organic Pollutants (POPs) (2001, 176 parties, 18 chemicals listed targeted for elimination) and the Montreal Protocol on Substances that Deplete the Ozone Layer (1987). These conventions set common principles that have been widely adopted into national legal frameworks.

1983 The World Commission on Environment and Development established by UN General Assembly. Created the most prevalent definition of sustainable development. In 1987 commission published "Our Common Future" – a blue print for future work on sustainability.

1988 Intergovernmental Panel on Climate Change (IPCC) Publishes comprehensive and updated information on the scientific basis of climate change.

1991 Business Charter on Sustainable Development issued at the 2nd World Industry Conference on Environmental Management (WICEM II). Foundational meeting for business and environment links.

1991 Global Environment Facility (GEF) established. (182 member states, $57 billion support to 2,800 projects in more than 168 countries, $634 million direct grants to over 13,000 community-based projects).

1992 UN Conference on Environment and Development (Earth Summit) adopts Rio Declaration and Agenda 21. Set the course for contemporary sustainable development. Landmark treaties on climate change, desertification and biodiversity.

1992 Convention on Biological Diversity (CBD) established. 193 member states. Protected areas doubled over past 20 years, covering over 12% of Earth's land surface. Cartagena Protocol on Biosafety in 2000. Nagoya Protocol on access and benefit sharing in 2010.

1994 International Conference on Population and development – Cairo

1994 Climate Change Convention entered into force, with 195 member states. Developing countries establish institutions for reporting progress on national adaptation programmes.

1995 Fourth World Conference for Women – establishes the Beijing Platform for Action undermining gender equity in Sustainable development.

1995 World Summit for Social Development

1996 UN Convention to Combat Desertification (UNCCD) entered into force. 193 signatories. 42 African National Action Programmes. Two thirds of African countries implementing National Forest Programmes (NFPs). Sudan has a National Action Plan and a regional programme exists with IGAD.

1999 UN Global Compact launched. Over 8500 signatories from 135 countries working on sustainable and socially responsible policies.

1997 **Kyoto protocol adopted** – It sets binding targets for 37 industrialized countries and the European community for reducing greenhouse gas (GHG) emissions. Funding to developing countries through the Clean Development Mechanism (CDM).

2000 Millennium Declaration adopted: "ensuring environmental sustainability" as one of eight Millennium Development Goals (MDGs).

2002 World Summit on Sustainable Development – Johannesburg – Rio+10.

2005 Bali Strategic Plan for Technology Support and Capacity-building

2005 Kyoto protocol comes into force.

2005 Millennium Ecosystem Assessment highlights the importance of ecosystems to human well-being, and the extent of ecosystem decline.

2007 Fourth IPCC Assessment Report states that warming of the climate is unequivocal. IPCC awarded the 2007 Nobel Peace Prize.

2007 The Economics of Ecosystems & Biodiversity (TEEB) launched Spotlights global economic benefits of biodiversity and ecosystems and multitrillion dollar losses being sustained by unsustainable path.

2007 International Panel for Sustainable Resource Management Governments are urged to adopt policies to 'decouple' the use of natural resources from economic development.

2008 UN-REDD programme launched to combat deforestation, forest degradation and climate change. 42 partner countries. 14 national REDD programmes.

2008 Launch of the Global Green New Deal – Green Economy. Transformational solution to both the economic crisis and environmental challenges. National policy initiatives in 15 countries.

2012 Rio+20. Green Economy in the context of sustainable development and poverty eradication key theme for the conference.

of the conference: the framework convention on
limate

change (UNFCCC); the convention on biological
diversity (CBD) and two years later the convention
to combat desertification (UNCCD). The Rio
Declaration has continued to underpin subsequent
development of multilateral environmental agree-
ments (MEA).[32]

Particular effort is made to include marginal-
ised groups in these consultations. In the Rio
Declaration, Principle 20 draws attention to the
role of women, 21 to the role of youth and 22 to
the role of indigenous people.

Supporting the emergence of co-management
practices requires a similar diversity of activities to
build consensus amongst stakeholders including
government and resources users and then develop
and implement functional resource management.
Including the voice of marginalised groups is vital
in reducing inequity in resource use.

2. **Building consensual environmental
governance is an on-going process rather
than a state to be achieved. Creating space
for the dialogue needed for consensus to
emerge is an important prerequisite for
progress – in reality progress is uneven with
external events creating opportunities,
challenges and the need for ongoing
adaptation.**

Brundtland's report was prepared during the Cold
War and the threat of nuclear disaster hangs over
the document, making the appeal within it an
urgent one. However, five years later the Cold War
had ended and the UNCED took place in a climate
of political and social optimism. There was a sense
that joint international efforts could bring about real
change and that environmental concerns and
development could really be linked, underpinning
the concept of sustainable development (Conca,
2005). There was a departure from speaking about
the environment in abstract global terms at the
highest level, instead recognizing its importance for

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An informal gold refining camp in Mahaliya Delgo in Northern State. Artisanal gold mining has attracted large
numbers of workers from across Sudan, often to remote locations. The miners have established their own
ways of working to share the profits and risks from the work. These informal systems, whilst enabling local
collaboration have some significant weaknesses, such as the failure to control the use of mercury.

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livelihoods and poverty alleviation at the grassroots level. By contrast in 2012, the level of ambition at the second UNCED conference "Rio +20" was much more constrained with a backdrop of a major economic downturn.[33] Since development of governance takes time and circumstances change during the process, development and adaptation of institutions and policies are therefore likely to be concurrent.

Darfur's recovery therefore should not be expected to be linear, but combined with on-going adaptation to climate shocks and wider social and political dynamics. Building co-management at the most local level requires time and an acceptance that progress will be uneven.

3. Development of environmental governance across sectors can be variable creating a challenge for coordination.

The broad scope of environmental governance creates a particular challenge for coordination – and considerable benefits if complementarity of action can be achieved. A clear articulation of principles promotes this as there will be some alignment at the strategic level. For example, if the forestry and water sectors both work on the basis of ecosystems management then there will be an enhanced natural alignment of programmes.[34] Strategic coordination is strengthened for international environmental governance through the Montevideo Programme for the Development and Periodic Review of Environmental Law, a rolling ten year programme operating since 1982 coordinated by UNEP. The programme sets out objectives for the following decade. In Sudan the Higher Council for Environment and Natural Resources has the mandate for coordination across government; councils exist in some states but not all.

Consultations and other participatory processes also promote coordination where the voice of each group of resource users is heard, enabling a holistic approach to the management of the environment. However, challenges still exist, for example aligning IWRM catchment management approaches in the same area as group ranching. In these cases one set of resource users (e.g. the group ranchers) may have a disproportionate voice with respect to a resource (e.g. water) as

they have better networks than other users of the resources who are not part of the ranching network.

4. Technical and scientific work is needed to provide a sound foundation for dialogue, and these need to be supported with effective communication

In 2007 the Nobel Peace Prize was awarded jointly to the Intergovernmental Panel on Climate Change[35] (IPCC) and Al Gore "*for their efforts to build up and disseminate greater knowledge about man-made climate change, and to lay the foundations for the measures that are needed to counteract such change*"[36]. The IPCC is an intergovernmental body with 195 member states set up "to provide the world with a clear scientific view on the current state of knowledge in climate change and its potential environmental and socio-economic impacts". The IPCC produces updates assessments on climate change every 5 years and represents an unprecedented collaboration across the global scientific community. Al Gore took climate messaging to a popular audience with his film "An Inconvenient Truth". The joint Nobel Prize recognises the need for both technical and popular communication as a foundation for peace. Principle 10 of the Rio Declaration calls for individuals to have access to information concerning the environment in order to enable participation.

UNEP's Post Conflict Environmental Assessments[37] and associated analytical follow-up are designed to be an analytical platform for rebuilding environmental governance in post conflict contexts. In Darfur a number of reports have been produced (such as this one) that provide environmental analysis that could support the Darfur Internal Dialogue and Consultation mandated in the DDPD. Co-management regimes draw on technical environmental data (e.g. groundwater data published by government) and on community based data collection (such as participatory rural appraisals (PRA)).

5. Civil society organisations are important as a voice that builds consensus and outlasts shorter term planning timeframes and institutional agendas.

Part of the strength of UNCED was the large-scale and coordinated participation of civil society

groups. Their contribution endorsed the sense in which the event reflected a genuine global consensus. Twenty years later civil society groups continued to provide an ambitious voice for the environment notwithstanding the less optimistic political and economic climate.

In Sudan the Environmentalists' Society was formed largely from staff and students at the Khartoum University Institute of Environmental Sciences, and both organisations were active in lobbying for the establishment of the Higher Council for Environment and Natural Resources. The Sudanese Environmental Conservation Society complements this role with a wide network of environmental groups taking action across Sudan. Civil society in Sudan[38] has played a constructive role providing technical expertise and providing a bridge between community action and various aspects of national dialogue. Co-management draws on the strengths of civil society in resource management forums, whether it is traditional leadership, community based organisations or non-governmental organisations. There is an important role for academic institutions in providing technical support and monitoring for co-management processes.

6. Since flows in money and flows in natural resources are inherently linked, managing the economics of the environment is essential to managing the environment.

Economic controls are a means of regulating activities with respect to the environment. Principle 16 calls for the "internalisation of environmental costs" with respect to pollution – the polluter pays. This principle has been further developed under the "green economy" benefits as well as costs from the environment. If the value of services provided by an ecosystem can be reflected economically then the case can be made for resources to be provided for the maintenance of that ecosystem. The green economy was one of the two main themes of the Rio +20 Summit.

Analysis of economic flows has been important in understanding the environmental challenges during the crisis. UNEP's report "Destitution, Distortion and Deforestation" showed how the distorted crisis economy in Darfur was driving deforestation through the inflated construction sector as a result of the international presence in Darfur. This made the case for introducing alternative construction technology in the humanitarian programme. This

Traders in an informal gold refining camp in Mahaliya Dalgo, Northern State. Understanding resource economics is vital to identifying means to governing exploitation and use of natural resources.

analysis provides a basis to better manage the environmental externalities of aid spending.

7. Reforming environmental governance requires funding at international, national and local levels.

The Global Environment Facility was established in 1991 to support implementation of the initiatives coming out of the Rio +20 Summit. At national level, budgets must be allocated for environmental developments. Similarly, in contexts of co-management, the establishment of revolving funds can be the key enabling factor for new processes of community environmental management. Mutually reinforcing benefits can be obtained by designing complimentary micro-finance initiatives for livelihoods and participatory natural resource management.

8. International development practice provides an opportunity for the demonstration of sustainable development principles.

Well-designed aid projects that implement Environmental Impact Assessments, consultations and other aspects of best practice in environmental governance while ensuring their own projects are environmentally sound, can also create a local precedent for implementation of these important environmental measures. Conversely, development projects that are poorly implemented may model shortcuts or poor practice that also set precedents, this time undermining capacity building for environmental best practice. Community based natural resource management also includes analysis of potentially negative impacts in project planning for local resource use. See Principle 17 in the Rio Declaration.

9. Capacity building of new and existing institutions is needed to implement sustainable development objectives. Capacity building is also needed for groups to negotiate new environmental agreements.

Governance requires institutions. UNEP was established in 1972 as a result of the Stockholm Conference on the Human Environment. In 1988 UNEP and the World Meteorological Organisation

established the IPCC, which led intergovernmental analysis of climate change and provided the platform for the Kyoto protocol. The institutional context continues to evolve.

Similarly, at national level, the development of an appropriate institutional context is vital for the implementation of environmental governance. The Rio Declaration recognises this in principle 9 calling for cooperation on endogenous capacity building.[39] Training in negotiation is important in international agreements and may also be significant in the development of national and local institutions.

10. Economic and political impediments may undermine the translation of commitment into action

Despite the developments and the optimism of the early 1990s, action on translating the conventions into national and local action has been slow and inconsistent. Swiderska[40] includes the following reasons for weak implementation, for which parallels exist in national and local processes of reform.

- little practical demonstration of the value of the conventions to various national and sub-national contexts, for example the Convention on Biological Diversity focusing on the conservation of rare species of global importance with little demonstration of relevance to local priorities and livelihoods;

- responsibility for implementation of conventions allocated to departments which are often underfunded and under-resourced, within peripheral, sectoral ministries;

- financial mismanagement and an elite capture of funds, which do not trickle down to local level; the view of economic and trade departments that national economic development would be hampered by strengthened environmental governance[41], and that international agreements on the environment are secondary to free trade agreements; and

- lack of structural changes needed to improve natural resource management.

4.3 Emerging environmental governance in dryland Darfur

Dryland ecosystems comprise approximately two thirds of Sudan. Water is a limiting factor for growth in vegetation and in social and economic activity in these contexts. Counter-intuitively, water development in drylands brings risks as well as benefits – it's not always the most appropriate action. Developing a water point may lead to depletion of the aquifer, or to depletion of other resources such as rangeland. Therefore water interventions need particular attention so that the economic social and environmental aspects of life and livelihoods in these interventions are kept in balance (Nassef and Belayhun, 2012; Gomes, 2006). Traditional livelihoods have developed to harness the variable and unpredictable distribution of resources – such as migrating to maximise livestock productivity by feeding on the more nutritious recently rain-fed pastures.[42] Appropriate support, however, to enable holistic and integrated approaches to drylands, draws on both indigenous and innovative best practice. Government, traditional leadership and community based management all have relevance in Sudan's drylands. Significant challenges to establishing equitable governance exist, but there are also some promising initiatives.

FAO undertook a review of the provision of water points for pastoralists in Kenya, Ethiopia and Somalia, which found that providing permanent water points, whilst providing abundance of one resource, attracted populations that meant other resources declined. "Grazing around the new water points, especially boreholes, transformed areas into dry grazing grounds….localised over-grazing expanded, and more important, perennial palatable plants began to disappear…" This led to considerable health and social problems. "The reduced quality of pastures affects milk yield and has important health consequences. This is suspected to increase vulnerability to famine and malnutrition. In some instances, the longer separation of the household from its herds has weakened children's health status as they are deprived from regular provision of milk" (Fratkin and al, 1999).

In Darfur the humanitarian funding in the water sector has had a remarkable impact in sustaining the lives of around two million displaced people.[43] However, the provision of large amounts of good quality, free water in a dryland ecosystem has challenges for the longer term transition to a sustainable context in which water is available yet is within the boundaries of what the environment and the economy can sustain. Co-management regimes have an advantage in localising decision making on prioritising trade-offs between the three Es. This should not, however, downplay the importance of government investment.

Management of ecosystems is also an important strategy, promoting equity through the management of water for all users. Integrated Water Resources Management, is an ecosystems based[44] approach applied at the wadi catchment level and is built on the four Dublin Principles.

Box 5.   Dublin Principles for Integrated Water Resources Management

1) Fresh Water is a finite and vulnerable resource, essential to sustain life, development and the environment;

2) Water development and management should be based on a participatory approach, involving users, planners, and policy-makers at all levels;

3) Women play a central part in the provision, management, and safeguarding of water;

4) Water has an economic value in all its competing uses and should be recognized as an economic good.

There is growing endorsement of IWRM in Darfur in the context of an approach that demonstrates many of the threads of emerging environmental governance described above. Technical studies, undertaken by different water sector stakeholders, confirmed the need for greater attention to water resource management.[45] As part of a vision-building exercise UNEP hosted two study tours to South Africa which formed the basis for vision documents. More widespread endorsement of an environmental agenda was articulated at the El Fasher Climate Change workshop in March 2010.[46] The IWRM and climate vision statements have been reflected in priorities in Darfur's planning documents such as the UN's Beyond Emergency Relief, Darfur International

A small wadi or khorr in North Darfur. Integrated Water Resources Management (IWRM) is an approach in which water is managed in a holistic way in the context of other natural resources within the same wadi catchment. This khorr is part of the wadi El Ku catchment.

Box 6.   Water rights and water resources in dry-land Darfur

Humanitarian water programming in Darfur has made considerable progress in lifesaving activities in a complex operating environment. However, after nine years, it is now proving difficult to identify an end-game for "emergency" practices that focus on only one of the three pillars of sustainable development – rights – without comparable attention to the others: economic efficiency and environmental sustainability. There are, for example, few initiatives for cost recovery and aquifers are still being widely over-abstracted.

IDPs in camps are entitled to 15 litres of water per person per day[47] which is generally acknowledged as being more than they had before the crisis when they were dispersed across the region. As a result there has been an unprecedented draw down of aquifers with water tables down by 7-10 metres in some camps. UNEP has classified 23 camps as at risk of failing resources (UNEP 2008A). One of these has already run dry.

An assessment in 2007 found that IDPs were using around half of the water supplied for sale to the city nearby or for making bricks that were also sold to the city (Oxfam 2007). The water sold in the city was comparatively expensive and was no longer clean after transport in donkey carts to the town. The bricks were feeding the property boom created by the international presence in Darfur. This increased trade in bricks was cited by Darfuri traders as the major cause of deforestation in Darfur during the crisis as increasing quantities of woodfuel was needed to fire the brick kilns (UNEP, 2008B).

So, chlorinated water that was being provided for free, funded by international organisations, was to a significant extent being used to subsidise a brick industry that was both causing environmental damage to water resources through the depletion of the aquifers, as well as damaging forestry resources through the increased demand for firewood. Paradoxically, the increased demand for the brick industry came from the very presence of the international organisations, some of whom were also funding the free water.

For the water sector in Darfur, this enduring focus on rights – to the exclusion of economic efficiency and environmental sustainability – has had long term consequences in what is both a distorted economy and a vulnerable ecosystem. Not least, it creates a considerable challenge in the re-establishment of a water sector that reflects a balanced approach to the three pillars of sustainable development.

Water Conference and the Darfur Joint Assessment Mission. Implementation has been promoted as GWWD and WES and Oxfam introduced monitoring to the humanitarian response in 2007 and community based "IWRM-light" initiatives. The Ministry of Agriculture in South Darfur has taken up the catchment approach. The EU is working with UNEP and others on the development of a major catchment project for Wadi El Ku. More recently, a similar process on dryland management with a focus on rangelands has emerged with a successful study tour and consultation in late 2012.

The humanitarian response in Darfur has caused the UN to develop new approaches to integrating environmental concerns into humanitarian work plans and the consolidated appeals process. The screening of humanitarian work plans, the development of an environmental marker for projects, and a four stage process for projects to *Contextualise*, *Assess*, *Mitigate* environmental impacts and *Enhance* environmental benefits have been at the core of this approach.[48] A template for Environmental and Social Screening has been developed for projects that are larger, yet still not large enough to warrant a full EIA. These approaches warrant scale up and integration with wider recovery programming in dryland Darfur.

The increasing attention being given to the concept of resilience has potential to address some of the more challenging aspects of the transition from an exclusive focus on rights in which economy and environment are not given due attention on an "emergency" rationale to one of sustainable development. Building resilience puts greater emphasis on enabling communities to prepare for and respond to crises. It has a longer timeframe than humanitarian projects, pays more attention to creating an enabling environment and to capacity-building, and has greater potential to be cost effective because it builds self-reliance. The development of sustainable and equitable environmental governance in Darfur remains an overarching challenge. Yet these initiatives – and others like them – demonstrate that progress has been made and can be built upon and replicated.

5 Land Tenure

5.1 Introduction

Land tenure is central to environmental governance and often one of its most disputed issues. Land tenure refers to the relationships between and among people with respect to land, whether defined legally (by statute) or customarily (informally) (FAO 2007). Much of the literature on land tenure emphasises the multiple dimensions of land. Whereas modern institutions of government are likely to focus on its economic significance, traditional institutions may have a very different understanding; it has strong political, social, cultural and spiritual significance as well, and central to this is the inter-generational dimension.[49]

Land tenure tends to reflect the power structure in a society:

> Because land and other natural resources are central to social and cultural identity and economic wealth, tenure arrangements in a society develop in a manner that entrenches the power relations between and among individuals and social groups. Tenure thus has enormous political implications and tenure issues are liable to be politicised. (FAO, 2009:5)

As Clover (2007: 4) reminds us: "land is an asset of substantial value and control over this resource is often central to national and local power".

Land tenure is a vast and complex topic. This section focuses specifically on two aspects: how customary land tenure systems are changing and adapting in Africa, with particular reference to the Sahel; and post conflict implications for land tenure. A number of authors lament how land issues are often ignored by international agencies because of the complexity and perceived political risks associated with land. This is true of the development side, for example donor governments

Traditional land use in Darfur. At the end of the rainy season there is extensive vegetation and water is still widely available in river beds. In the dry season the vegetation will have dried significantly and water may only available from deep wells re-dug each year in the river bed.

skirting around land issues which have received inadequate attention in PRSPs (IIED et al, 2005), and also to the humanitarian side:

> Despite increasing evidence that land is often a critical issue in conflict-affected emergencies and forced displacement and plays a key role in post-conflict reintegration and reconstruction processes, there is a perceived lack of humanitarian engagement on housing, land and property issues. (Pantuliano, 2009:1)

Yet the outcome of a 'Land in Africa' conference, held by IIED in 2005, reminds us that:

> Secure land rights are now recognised by most African governments as critical for peace, stability and economic growth. The African Union also sees better governance of land and natural resources as central to all hopes of peace and stability across the continent. (IIED et al, 2005: 3)

5.2 Customary land tenure and its evolution in Africa

Cotula (2006) charts how customary land tenure systems are changing across Africa as the continent undergoes major transformation due to processes such as urbanisation, population pressure, diversifying of livelihoods and the arrival of new investors in land. Monetarisation of the economy and agricultural intensification have sometimes accelerated the decline of customary systems. This is in line with the 'evolutionary theory

of land rights', whereby the combined effects of demographic growth and changes in cropping systems, including increased production of cash crops, increases the value of land and leads to the greater individualisation of land rights and a more monetarised/ privatised land tenure system, but this rarely happens in a linear and straightforward way.

The current diversity of approaches to land management in Africa is captured in Afrobarometer's study. Answers to the question "Who do you think actually has primary responsibility for managing each of the following tasks? Is it the central government, the local government, traditional leaders, or members of your community: allocating land?" are shown in Figure 2.

Cotula (2007) captures some of the different ways in which customary land tenure systems adapt and are reinterpreted as a result of social, economic, political and cultural change according to the local context. In some cases, customary authorities have maintained or even strengthened their power, for example through strategic alliances with central government authorities and business elites. In others they have been eroded by demographic change in the local population, competition from formal government institutions, and by shifting power dynamics. Where customary authorities are still effective in regulating land access, the collegiate bodies that are used to oversee their work may not be, resulting in a breakdown in accountability and a privatisation of common lands.

However, whereas government policy used to emphasise replacing 'customary' with 'modern'

Figure 2. Role of Traditional Leaders versus Local Government in Allocating Land (primary responsibility) in 18 countries.
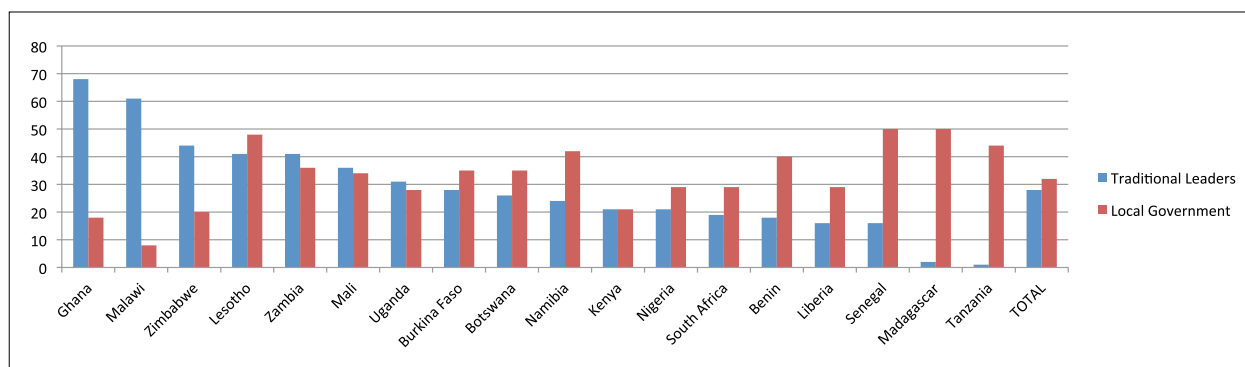
Source: Logan (2011)

tenure systems, this is giving way to a growing recognition that land policies and laws must build on local practice (Cotula, 2007). Ways of doing so are captured in Box 7. Kenya's Land Policy of 2007 – the first since independence – is a good example (Ministry of Lands, 2007). It recognises and protects customary rights to land, formally recognising community land for the first time. It also makes provisions to secure pastoralist livelihoods and rights to land. The emphasis is on governance at the local level with three key institutions: district offices of the National Land Commission (to be staffed by technical representatives who are appointed), District Land Boards (composed of democratically elected community representatives) and Community Land Boards (comprising elected representatives of people resident in the area, to respect ethnic diversity, gender etc). In Niger the Rural Code process introduced 'Commissions Foncières' that operate at the village level and function in a similar way. Their mandate is:

1. the provision of information and awareness-raising about land regulation,

2. to collect and manage information on land purchases and;

3. ensuring security of tenure and land titles through registration of land transactions

This has contributed to reducing antagonism between different groups in the rural population and reinforcing the security of land purchases, which is especially important for those with less political power (Kandine Adam, 2006).

The term *legal pluralism* is commonly used to describe separate social fields of *legality* that overlap and interact. Such situations are common across Africa, where land holding is complex and fluid and several legal systems may operate at once (Clover, 2007).

An instructive example of legal pluralism in which customary and statutory frameworks co-exist or – more accurately – are intertwined, is that of south-western Burkina Faso. Migration into the area from other parts of the country and from Côte d'Ivoire, the expansion of cultivated lands for cotton (replacing subsistence crops) and greater use of animal traction for cultivation mean that land is now in short supply. A monetised but somewhat chaotic land market has emerged that is not cut-off from its customary roots. For example, it is not clear-cut what is being purchased, the land

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Box 7. A way forward for Government Policy on Land Tenure

Where customary systems have been eroded by social, economic, cultural and political change, government intervention may be needed to provide effective land management. Even where customary systems seem to work well at the local level, government intervention may be required as powerful outsiders that do not feel bound by those systems (e.g. urban elites, foreign investors) enter the land arena. In these cases, lack of legal protection for local land rights based on customary systems may result in local resource users losing land access. And whether customary systems are still working well or not, government intervention may be needed to secure the resource claims of weaker and more vulnerable groups – who stand to lose out in ongoing processes of change in local land relations

Recent emphasis on the need for legislation to build on local practice is a major step forward compared to the past. Ongoing debates on the formalisation of land rights (which tend to be centred on individual land registration programmes) must avoid the trap of appealing but simplistic one-size-fits-all solutions. Where resource access rights are multiple and overlapping, as is the case in much of rural Africa, registering individual property rights would raise important technical and political challenges, and would entail that unregistered right holders lose access to vital resources. Therefore, legislation that aims to secure resource claims based on locally recognised tenure systems, rather than to overhaul them is, in many cases, the most effective way to secure access to natural resources.

In this, temptations to idealise the "local" must be resisted. Many customary systems are inequitable as regards social status, age, gender and other aspects. This raises the challenge of finding ways to 'square the circle' [meaning to find resolution] of recognising and securing local land rights, which are the entitlements through which most rural people gain access to land; while avoiding entrenching inequitable power relations and unaccountable local institutions.

Cotula (2007: 3-4)

itself or the right to cultivate it, and monetised transactions occur within an established system of social obligations: thus, incomers buying land may be tied by a 'duty of gratitude' to their hosts who are selling it, and this may be more onerous because of the monetised payment. Also, transactions are often concealed, rarely accompanied by legal proof of transfer, and land is still rarely thought of as a commodity. Although a market is emerging, it is still not talked about as its practices violate customary principles of land tenure and land legislation (Chaveau and Colin, 2006). The authors of this study in Burkina Faso challenge the view that once a land market has emerged it continues to operate indefinitely, citing an example from Côte d'Ivoire where incomers initially acquired land on the market, but as it has passed from generation to generation and as land has become increasingly scarce with the introduction of new cash crops, there has been a reining in of land sales which have now become a family, not an individual matter. Meanwhile in Sudan, "the customary system is too often separated from the formal system – rather than being viewed as part of the justice sector for

Sudan", despite the fact that access to justice for 80 to 100% of the population is through customary law (Boyd et al, 2007: 33).

Women's access to land in customary land tenure systems varies greatly from one context to another, although Daley and Mi-young Park (2011) observe that:

> In relation to gender, women in many societies acquire rights to land – often secondary usufruct rights – by means of their relationship with men (fathers, husbands, brothers, sons). Particularly in Africa, women often lose land on widowhood and become vulnerable to eviction from their matrimonial homes. (p.15)

However, the authors also recognise that evolving customary land tenure practices and institutions have a potentially important role to play in promoting a more gender-equitable land tenure system, especially where women find it easier to approach local leaders and customary institutions than legislative bodies.

View across Aribo and Wadi Azoum to Zalingei at the end of the rainy season. Azoum is one of Darfur's largest watercourses. Flooding is still apparent in the brickworks on the bank but by this stage the wadi bed has run dry.

5.3 Land, conflict, and post-conflict experience

Alden Wily (2009) provides salutary evidence of the impact of tension and disputes around customary land rights in Africa: 'among the 30-plus conflicts in African in 1990 and/ or since, there have been only three cases where this was not (often in hindsight) to prove a fundamental element in the grievances driving people to war and emerging out of war as a concrete target of remedy' (ibid: 36). This is often to do with the unclear status of customary land interests, especially in relation to state land, as demonstrated so clearly in Sudan, see Box 5. As a result, millions of customary landholders around the world are seeking statutory legal recognition of their occupancy and use rights, with some promising examples, including innovations in family and collective entitlement in countries such as Mexico and Tanzania (ibid).

Unruh (2009) draws attention to the way legal pluralism can proliferate during conflict. Informal legal fields usually move and evolve much more quickly than formal law. He warns that: 'When difficulties between legal fields regarding land access, claim, use, disputes and security become widespread and severe over the course of a conflict, the result can threaten a delicate peace' (ibid: 54) with examples from El Salvador, Nicaragua and Mozambique. The informal legal fields that develop during war will usually be stronger than old or new laws, a salutary point for Darfur as the conflict continues with widespread displacement, some secondary occupation of land, and opportunistic arrangements around land to enable livelihoods to continue. Indeed, population displacement and dislocation can play a key role in the development of legal pluralism, through physical separation within communities which weakens social rights and obligations, and displaced people seeking land elsewhere through alternative land tenure arrangements related to the newly emerging situation. Whether the displaced can return 'home' will depend on various factors including the length of the war, the intactness of the return community and the extent to which individual and community changes during displacement are compatible with the pre-conflict tenure system. Land-related grievances can also encourage legal pluralism, which may be associated with a weak presence

Office of the Darfur Land Commission (DLC) in Khartoum. The commission was established under the Darfur Peace Agreement. It draws on customary knowledge and more technical elements such as land use mapping with GIS for its work. Its mandate has been clarified under the Doha Document for Peace in Darfur.

and penetration of the state in dealing with land issues and therefore the emergence of alternative mechanisms for resolving land disputes.

This description of legal pluralism resonates strongly with the current context in Darfur. The Darfur Land Commission (DLC) is currently undertaking a major land use mapping exercise in order to produce the "Darfur States Land Use Mapping Database" as described in the DDPD. This will be submitted to the Darfur Regional Authority for approval and updated every five years. In addition the DLC has undertaken a major exercise in documenting customary land management mechanisms. The DDPD mandates the DLC to arbitrate on land disputes (paragraph 201). However, a role for traditional leadership remains (as described in paragraph 203) "…parties to land disputes shall be encouraged to exhaust traditional methods of dispute settlement, including arbitration, before going to court". Therefore a system of legal plurality is built into the management of land in Darfur. Managing the interface between these systems will be key for ongoing progress of land management in Darfur.

Clover (2007) makes the point that land issues are fundamental to reconciliation and economic rehabilitation in most countries emerging from protracted conflicts:

Governance of the tenure regime, access to land, security of tenure and distribution of land holdings provide the building blocks for sustainable security, but in post-conflict situations they are also more fluid and open than perhaps at any other time and the post-conflict period poses many operational tensions. (p. 83-84)

Although legislative change often accompanies a peace process, it is usually very slow compared with the much quicker and more fluid developments in the informal legal fields. This introduces the concept of 'forum shopping' where claimants are able to choose the legal field in which to pursue land issues, for example formal law, customary systems, or even a perceived legal field associated with humanitarian organisations. Although messy, it has been argued that forum shopping can offer room for manoeuvre and negotiability, potentially reducing violence in a peace process (Lund, 1996). Unruh (2009) points out how some forum shopping has evolved into a relationship between legal fields that operates as a form of appeal, citing the Somali Region in south-east Ethiopia where forms of dispute resolution have changed over time into a form of appeal, for example involving local elders or family courts. This can result in a realignment of fields to be sequential rather than several choices at once which can introduce a great deal of uncertainty. Unruh argues that state recognition of legal pluralism may be important in a peace process if the state emerging from civil war is weakened and/ or its legitimacy is questionable, citing El Salvador's Chapultepec peace agreement and the Mozambican peace accord as examples of state recognition of pluralism which contributed to success of the peace process.

Recognising the significance of numerous national level restitution processes – for example, the United Nations High Commission for Human Rights' appointment of Paulo Sérgio Pinheiro as Special Rapporteur on Housing and Property Restitution in 2002 – led to the adoption of the Pinheiro Principles[50] in 2005. The principles are designed to provide practical guidance on the legal and technical issues of restitution of land and property. A handbook[51] for their implementation was published in 2007. The principles endorse numerous existing rights in the context of return and state that: "All refugees and displaced persons have the right to have restored to them any housing, land or property of

which they were arbitrarily or unlawfully deprived, or to be compensated for any housing, land or property that is factually impossible to restore as determined by an independent, impartial tribunal". As Bruce notes in his 2007 review of the Rwandan return process[52]: in complex situations where more than one returnee appears to have rights to the same piece of land, application of the principles can be unclear. This example however serves as a useful reminder of principles and guidelines in general which need application with due regard to the context.

Alden Wily (2009) lays out the risks of focussing only on restorative justice post-conflict, in other words the restitution of property to the displaced, often the focus of humanitarian actors. She makes the case for considering reform of property relations where these are at the heart of the conflict: "peace therefore becomes much less a matter of *restoring* the order than *changing* the order" (ibid: 35). She usefully distinguishes between four types of property concerns in conflict:

1. grievances that consciously triggered the conflict and therefore carry with them a victor's or peace agenda relating to property. (An example of this in the Darfur conflict is the grievance held by the Northern Rizeygat about their lack of tribal land rights);

2. those that appear during the war due to a breakdown in norms, rule of law and policies, especially because of displacement. (An example of this in Darfur is the grazing of pastoralist livestock on farms and in villages that have been abandoned by the displaced, and that are now semi-settled by pastoralists);

3. property issues that arise or are heightened because of a poorly-managed peace. (For example, in Sudan the Comprehensive Peace Agreement [CPA] failed to determine ownership of underground natural resources and parts of the boundary between North and South, contributing to the Abyei crisis in 2009 – Alden-Wiley, 2009);

4. inequitable property relations, often afflicting agrarian societies and that could result in further conflict if unresolved. (For example, customary land rights were never defined in

Volcanic roots North-West of Jebel Marra in North Darfur. Various livelihood groups depend on access to the natural resources in this area at different parts of the year. Frameworks to manage these resources equitably are evolving and draw on both traditional and statutory forms of governance. The Doha Document for Peace in Darfur calls for these frameworks to be reformed.

the CPA, leaving government plenty of room to fall back on the pre-war convention that customary property is restricted to residential and cultivation lands, and that it therefore retains legal power over the majority of land to be allocated to whomever it chooses, including investors).

The last two in the list are the ones that are usually paid least attention. Alden Wiley (2009) also warns against the dangers of humanitarian, research and development agencies paying undue attention to the ownership of individual assets, especially in relation to the needs of the displaced, yet failing to understand that property relations are often community-based, with complex patterns of ownership and access:

> For example, it is common for humanitarian actors to recommend that nomads be given ownership of pastures in circumstances where in fact their rights are historically rights of

seasonal access, not ownership, and where state-supported abuse of those rights contributed to war in the first instance (as in Sudan, Afghanistan, Chad, Somalia and Ethiopia).

> Alternatively, agencies may press for the immediate retrieval and re-entrenchment of registered entitlements as if these issues were not a source of contention and grievance, or advocate titling without recognising precisely what should be registrable and by whom – including families, groups and whole communities. (p. 37)

Alden Wily (2009) warns that:

> All too often, a great deal of damage is done to property relations in the first two years of peace as confused conditions reign and critical decisions not taken become more difficult as political will flags. The free-for-all impulse of the war years may continue. Land-grabbing

is the commonest symptom and is difficult to undo. Thus far, peace accords, while more alert to property concerns, still largely fail to address the issue of tenure at all (Afghanistan, Liberia), fail to sufficiently prepare for long-known realities (Rwanda, Burundi), leave loopholes through which recalcitrant parties may clamber to avoid compliance with even principles they have agreed (Sudan, El Salvador, Nicaragua, Guatemala), or (almost always) fail to provide external monitoring with the teeth to discourage abuses.(p. 39)

A review of seven peace agreements across the African continent since the early 1990s demonstrates how inadequately issues of land and natural resources are dealt with in the agreements. It also shows the problems that that inadequacy caused in the post-conflict phase in which a given *new* administration rarely has the interests of the poor rural population high on its agenda (see Annex 2). The Niger example in 1995 is perhaps one of the most promising, but was not followed up with successful implementation.

Based on wide-ranging experience, Alden Wiley (2009) proposes strategies for dealing with land tenure in the peace process, summarised in Box 8.

The Committee on World Food Security endorsed the 'Voluntary Guidelines on Responsible Governance of Tenure of Land, Fisheries and Forests' in May 2012. (FAO, 2012) Facilitated by FAO, these are intended to 'assist States, civil society and

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Box 8.   Strategies for dealing with Land issues in Peace Processes

Get in early: ensure that land and property issues are placed high on the peacemaking agenda

Build up core expertise and tangible lessons: there is now adequate experience of post-conflict situations to know what to expect and to plan for, and sufficient experience of comparable issues in non-conflict states. The challenge is to ensure that this kind of analysis and advice (e.g. from land tenure experts) is taken on board by mediators and negotiating parties;

Use international power to best advantage while it counts: there is usually a short window of opportunity in which the post-conflict administration depends heavily on the international community for guidance and resources, and maximum advantage should be taken of this window as experience shows that rising self-interest on the part of a new administration may otherwise exacerbate the problem;

Focus upon the most pressing realities: there is a need to prioritise. Experience shows that there are often three key issues that require urgent attention (i) preparing for the consequences of rapid post-conflict urbanisation (ii) reforming the ways in which customary and common property resources are tenured; and (iii) pursuing these and other policy-making and action in a genuinely localised and inclusive manner;

Prepare for the 'post-conflict city': rapid urbanisation takes place during and post-conflict in most contexts. Pre-empting these trends is key, not with master planning and formalised programmes, but rather with programmes that focus on vulnerable sectors and actions that help them to secure rights at least cost and with greatest speed, and embedding land rights principles and commitments in early agreements;

Get to grips with the tenure status of natural resources and customary lands: this is particularly important in relation to the vulnerable status of unregistered rights, especially in areas where natural resources are attractive to agri-business investors post-conflict. Community definition of the boundaries of large communal properties is now being widely adopted as a practical local level strategy to protect customary rights to forest resources;

Pay attention to the powerful territorial notion of 'our land': failure to account for the persistence of this notion has exacerbated tensions in agrarian conflicted societies, e.g. Kenya. It relates to the wider issue of the status of the customary property interests, and where authority over this is vested. Devolution of land authority to the most local community level is a practical way of dealing with this;

Make popular empowerment the cornerstone of practical intervention: at a practical level, particularly in relation to agency involvement, projects need to be as devolved, participatory and experiential as possible. This can be done on a pilot basis, thus fostering inclusive and democratic governance and engaging civil society post conflict. This can also play an important role in dealing with local level conflict and contested rights;

Work with women: this may be particularly important in relation to urban property, as large numbers of widows and female-headed households often gather in poor urban areas; they are often an accessible and needy target group.

Alden Wiley (2009)

Box 9. Nuba Mountains

Historically farmers and migratory pastoralists in the Nuba Mountains of Sudan have shared access to natural resources through customary governance mechanisms. At specific times the pastoralists had the right to cross the farmers' fields on agreed migratory routes. In the dry season they move southward along the migratory routes; in the rainy season the pastoralists travel northwards. The traditional arrangements were replaced with a formal statutory governance system during the early 1970s, However, the new system jarred with traditional practices and confusion between the two arrangements ensued. In addition to the changes in legal context, there were higher level dynamics as resource users began to enter from outside the area. In this context there was conflict between resource users. That conflict can be characterised as follows:

- The "outsiders" appealed to the new national polices, and their rights to use the common land as private land.

- The "insiders" who relied on the traditional system with its regulations and norms for dealing with the natural resources, never accepted the new polices and consequently this undermined their control of natural resources in the new arrangement.

- Pastoralists lost access to migratory routes and water points due to the introduction of the new agricultural schemes.

- The rich farmers of the mechanised agricultural schemes used armed guards to protect their mechanised farms and keep the pastoralists and farmers away.

- Access to the natural resources policies and legal information was easier for the outsiders than the insiders.

The question of compensation has been raised by the indigenous actors. Are the negative impacts of environmental degradation and socioeconomic fragmentation more expensive than the benefits derived from launching and implementing the new policies? Are the local or national authorities responsible for paying such costs? In practice, the default position was local communities to shoulder the costs of the changes. These were some of the key dynamics in the unfolding conflict over resources in the Nuba Mountains.

(Ahmed 2010).

the private sector in improving the governance of tenure, and thus contribute to alleviating hunger and poverty, empowering the poor and vulnerable, enhancing the environment, supporting national and local economic development, and reforming public administration', recognising that it is the poor who are particularly vulnerable to the consequences of weak governance affecting land tenure as they lack the ability to protect their rights to land and to other natural resources.[53] When finalised, these guidelines may be a useful resource for states emerging from conflict as they develop and refine strategies, policy and legislation related to land tenure.

# 6 Experience of Environmental Governance Across the African Continent

6.1 Environmental governance in context

A review of environmental governance (including its success or failure) across the Sahel has to be contextualised in terms of the wider governance framework and its evolution. While the concept of 'good governance' has underpinned the development agenda in Africa for at least 15 years (as explained in Section 2), muted success in pursuing the goal of good governance has led to a recent questioning of the apparently universal notions behind the concept that may better reflect the history of the West than the history and current context of Africa (Booth, 2009). This muted success has also fuelled calls for more locally-driven forms of governance, building on what exists, making use of indigenous institutional creativity, rooted in the socio-cultural context; Booth calls this 'working with the grain' (ibid). This shifts the spotlight onto traditional and customary forms of governance, encourages decentralisation and greater attention paid to traditional leadership institutions which may be recognised through constitutional and legal frameworks.

To some extent South Africa has followed this path; traditional governance was juxtaposed with that of the state 'by ceding the administration of rural areas to traditional authorities through the control of land allocation' (Economic Commission, 2007: 19). Interestingly, a recent survey across 19 African countries found that the more people perceived state authority as legitimate, the more they showed support for traditional leaders; many interviewees did not consider formal/modern and traditional governance institutions to be entirely different and/or separate entities. This suggests that commitment to democracy and support for traditional leadership are not mutually exclusive, and that overall people want more, not less of their traditional leaders. The answers to the question "Do you think that the amount of influence traditional leaders have in governing your local community should increase, stay the same, or decrease?" are shown in Figure 3. However, the author notes that the countries selected in this study represent the

Figure 3. Perceptions in 19 countries whether Traditional Leaders' influence should increase or decrease.
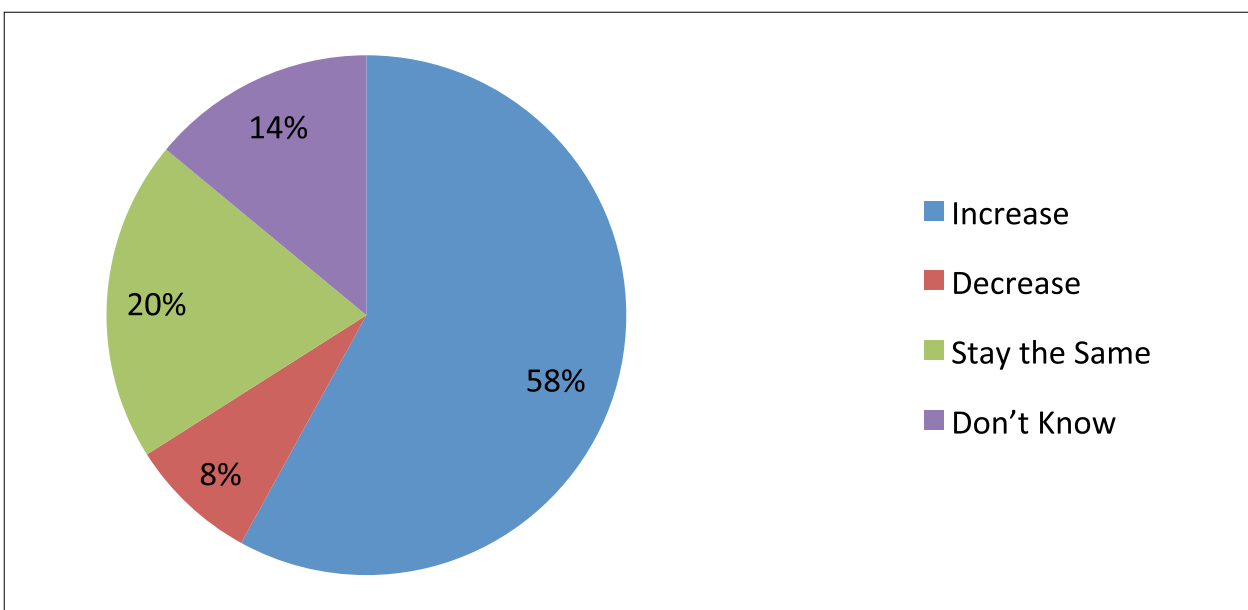
Source: Logan (2011)

Figure 4. Perceived distribution of responsibility for managing key public tasks in 19 countries *"Who do you think actually has primary responsibility for managing each of the following tasks? Is it central government, local government, traditional leaders, or members of your community?"*
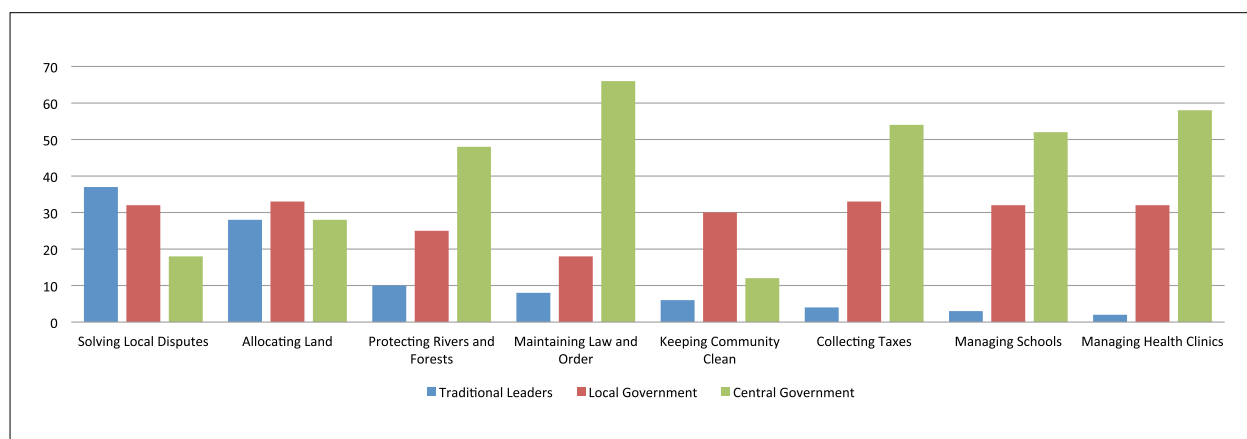
Source: Logan (2011)

continent's most open societies – those that have undergone some degree of political and economic liberalisation in the last ten years – so may not be representative of the entire sub-Saharan region (Logan, 2011; IDEA, 2010).

The study found that the areas where traditional governance was perceived to be most relevant were in settling local disputes, allocation of land and in protection of rivers and forests. These results are shown in Figure 4. Overall, Afrobarometer's research concludes that there is an interest in increasing the role of traditional leadership in Africa.

Despite this shift in thinking, however, the practice has still to catch up in terms of successfully integrating or juxtaposing traditional or customary governance with modern state governance. And as Booth has advised, this should be driven at the country level according to the local and national context. Busia (in IIAS and IDEA, 2009) has identified three ways in which customary governance is integrated into the formal state across the African continent:

1. maintaining customary governance but as subordinate to the authority of the state which accepts or even creates parallel governance structures (for example in Zambia and Ghana);

2. customary governance structures which effectively constitute a state in the form of a confederation, giving different groups the power to control and shape their governance structures and legislation;

3. customary governance co-exists alongside the state, serving as a check on the non-customary state (for example in Botswana, Ghana and South Africa).

A number of authors (see Chopra and Hohe, 2004, for example) warn against an uncritical acceptance of customary governance. Whether local structures are reinvented, integrated into formal governance structures, or simply reinforced, depends upon how they are functioning in terms of representation, egalitarianism and accountability to the community. Different analysts hold different views about whether we are currently witnessing a transitory process in which ultimately the modern state will prevail over traditional/ customary political structures, whether there can be a successful

A village land use map, as an outcome of participatory land use planning in Tanzania.

cohabitation between modern and traditional structures, or whether local innovative responses to democratisation processes will introduce new innovative governance mechanisms (Logan, 2011).

6.2 Natural resource management, customary mechanisms and decentralisation in the Sahel

Customary mechanisms for managing natural resources have a long history in the Sahel. But there is also a widely shared experience of traditional institutions for resource management being "devalued and weakened by modern state policies that do not recognise them nor assign to them any meaningful role" (Borrini-Feyerabend, 2007: 59), despite the recent rhetoric that appears to encourage the recognition of traditional institutions. This is most extreme in the case of pastoralism where the customary NRM system fosters flexibility through informality, ad-hocness, un-boundness, impermanence and continuous socio-political negotiation – a system that is most likely to be at odds with the forces of economic modernisation and emergence of state power (ibid).

Sudan illustrates this trend well. In the case of Darfur, customary mechanisms were embedded in the native administration.[54] "For more than half a century [from the 1920s] the native administration provided a system of local governance that managed the use of natural resources and allowed various groups to live in relative peace and stability" (Abdul Jalil et al, 2007). In many ways, this was a 'shared management' approach. However, as is now well-documented, the effectiveness of the native administration in Darfur has been eroded over time, for example through its abolition and then reinstatement during the 1970s, and especially through politicisation over a number of decades (ibid). Morton (2011) provides a thorough analysis of the breakdown of what he calls 'The Darfur Social Contract' that was key to the native administration working effectively. This is widely associated with the deterioration of environmental governance at the local level.[55] As Morton comments: "disputes over natural resources are nothing new. On the contrary, for Darfuris it is business as usual. The puzzle is to understand why that business has become so much more destructive. One reason is politics" (ibid: 4).

Local agreements are often central to customary mechanisms for managing natural resources. Local agreements have been defined by Tall and Gueye (2004: 5) as 'local arrangements formulated by communities to ensure better management of their natural resources'. The same authors comment upon how the long tradition of shared management in the Sahel was upset by the droughts of the 1970s and by new forestry legislation which stifled initiatives for communal management. Conservation and reforestation became the focus rather than local participation. Local arrangements often arise when resources have been degraded and local communities want to address the situation. But in the words of Tache and Irwin (2003: 16): "resource degradation requires a socio-political solution rather than a technical fix". Tall and Gueye see the emergence of local agreements for NRM as an innovative response to the breakdown of environmental governance in a number of countries:

> The fact that the institutions which traditionally managed natural resources (customary chiefs, village headmen, land chiefs) have gradually been losing influence, together with the rigidity of modern regulatory systems, leaves a vacuum in which new local management mechanisms can emerge. (ibid: 7)

They see local agreements providing a methodological framework for managing natural resources, for example based on a participatory learning process agreed between parties with different interests, as a regulatory and institutional instrument, and/ or as a tool for planning, managing and developing natural resources sustainably.

Many Sahelian countries have experimented with a more decentralised form of government in the last decade. In theory, this should mean the devolution of natural resource management: 'creating space to accommodate local interests and empowering local communities' (Shackleton et al, 2002). In practice, there is a sense that it has promised much, but so far delivered rather little, although there are valuable lessons to be learned.

Controlled harvesting of trees, hay and other natural resources by the 'Wend Panga' Association in Boala, Burkina Faso.

A case study of decentralised natural resource management in the Inner Niger Delta of Mali illustrates some of the challenges well. This study shows the difficulty both of building a functional relationship between local government and customary systems, and of making legal pluralism work in such a way that statutory and customary law can co-exist (Cotula, n.d., 2006a). In this example, there is a mosaic of customary systems in place. Somehow they all need to be acknowledged, but this has not yet been achieved. For example, although the courts often try to apply customary laws to an institutionalised legal system, their limited understanding of customary laws and its context has led to problematic interpretations. The relationship between the traditional authority, the '*jowro*', and institutionalised authority through the commune is one of constant tension. The author calls for a more nuanced approach that can help promote dialogue between local government, the *jowro*, and other local actors. Above all, this case study highlights the importance of understanding power relations in processes of legal change, as this impacts on equity issues for local resource

users, for example who are better able to bend the rules to their advantage? The author also challenges the perception of the relationship between customary and statutory law as a dichotomy between legality and legitimacy, formality and informality. In practice, the picture is much more complex and there are all sorts of combinations and hybrids between customary and statutory institutions.

Looking beyond the Sahel to Asia and Southern Africa, Shackleton et al (2002) conclude that the rhetoric and practice of devolution has diverged considerably, usually leaving the state in control of local NRM. Key features of the successful devolution of NRM are local people having strong alliances, being well-organised, and having knowledge of their rights and legislation governing NRM. One of the main reasons for the failure of devolution in achieving its goals is that the state and local people have different expectations of what devolution it supposed to achieve. Again, an analysis of power and governance is key, in relation to traditional leaders and to local government. For example, strong and legitimate traditional

A community fishermen's association manages this pond and the surrounding area in Yanfolila, Mali.

leadership significantly helps to promote local people's priorities, whereas weak and biased lineage leaders had little support or role in community-based NRM.

A further complicating factor in many examples is that devolution of NRM is rarely complete, and the central authorities continue to drive the NRM agenda, or, as in the Mali case above, do not fully devolve power over state land and NRM more generally, especially forests, to the local authorities. This may be exacerbated by central and local government having different interests and priorities. This resonates with the situation in Sudan where there is often an ambiguous division of authority between federal and state level despite the decentralisation process (UNEP, 2011).

Nori et al (2008) comment on how the benefits of decentralisation are yet to be experienced by pastoral communities 'whose sense of disillusion-ment and resentment towards state or religious institutions is an important element that should not go underestimated and that might help explain to an extent processes of political radicalisation in many pastoral regions' (ibid:17). This is further explored in Section 6.3 below.

There have been numerous experiments across the Sahel to encourage and support shared management approaches. One such experiment was facilitated by SOS Sahel in the Borana lowlands in southern Ethiopia. One such experiment was facilitated by SOS Sahel in the Borana lowlands in southern Ethiopia where forests and pastoralism were in a familiar state of crisis to Sudan: under pressure from expanding agriculture, at high risk of inadequate rainfall and with degrading forests. Customary management systems had been undermined by policy, for example land tenure policy, which placed pastoral common lands under state ownership but failed to control either resource exploitation by urban users, timber extraction by merchants, or ranching. That failure indicates a misunderstanding on the part of policy makers, of the significance of mobility to pastoralist systems. As a consequence both the natural resources and the livelihoods associated with them, were in decline.

The SOS Sahel project was an attempt to develop a new collaborative system of management, combining both customary (in this case the *Gadaa* – the traditional institution of the Borana Oromo that assumes ritual, political and religious responsibilities for an eight-year term of office) and modern institutions and actors (in this case the Peasant Association, the formal institution that is closest to the grassroots in Ethiopia's decentralised system of governance). Interestingly, the process

Box 10. Action Research on the Shared Management of Common Property Resources –
the process adopted by the Borana Collaborative Forest Management Project

The project identified three stages in developing collaborative forest management:

1) the investigation stage to understand forest use
2) the negotiation stage to produce forest management plans and shared management arrangements as a result of facilitated negotiation between different stakeholders
3) the implementation stage, of forest management agreements – learning by doing.

The first stage began with a stakeholder analysis, using participatory social mapping tools, the 3R's matrix that captures stakeholders' rights, responsibilities and revenue in relation to forest resources, and the mapping of relationships between primary and secondary stakeholders. This fed into a differentiation of stakeholders between direct and indirect users, and an analysis of stakeholders in terms of rights and interests. The results from this investigation stage fed into negotiation for a representative management structure, based on new relationships and partnerships according to mutual recognition of legitimate roles and defined responsibilities.

The key learning from this early stage of the project is that:

'A multiple stakeholder resource project requires time for implementation if it is to produce enduring positive results. Working within short-term donor timeframes presents real risks, in that untimely withdrawal of support, or rushed processes, could cause serious problems in terms of the quality of new resource management systems being established' (p45)

Source: Tache and Irwin, 2003

has included 'modernising' customary institutions.[56] The aim has been negotiating a new common property management system in which both institutions are legitimate right-holders over the forest and co-manage it, with the traditional structure playing a lead role and the PA a supportive role. In this process the external development agency had a clear view of its role:

> Decisions about change, and the shape of any new system, remain with the stakeholders involved. We, as development actors, are intending to facilitate a process of negotiation amongst stakeholders, if it is agreed that this is an appropriate way forward. (Tache and Irwin, 2003: 6)

Box 10 (on the previous page) sets out the process that underpinned this project.

The challenge with these local co-management projects is to ensure their sustainability after the external facilitation and support is withdrawn; and to ensure that the prevailing policy context will continue to support rather than undermine such initiatives.

7 Environmental Governance and Pastoralism: defining and securing pastoralist rights in the Sahel

A well-managed cattle migration in Darfur.

For decades the livelihood and NRM systems underpinning pastoralism have been poorly understood by governments and policy-makers around the world. This has resulted in the progressive marginalisation of pastoralist groups, politically, economically and socially, and a litany of failed development projects. A recent review of pastoralism and climate change captures this in the following statement:

> Governments and other actors external to (the) pastoral system have persistently failed to understand the underlying rationale and dynamics of pastoralism. Colonial governments perceived pastoral lands to be unoccupied (having no owner) or underutilised and poorly managed thereby justified their

appropriation by the State and classified as government or Crown property. This approach meant that grazing lands and migratory corridors could be alienated without consulting, or even informing, local communities.

Garret Hardin's '*tragedy of the commons*' thesis in 1968 provided a convenient theoretical framework to justify existing perceptions of pastoralists as irrational land use managers by those external to the system (governments, academics, developers). Although Hardin's theory mislabelled pastoral resource tenure as open access and failed to recognise the critical role of customary institutions in regulating the management of common pool resources, it was extremely influential in

perpetuating negative myths of pastoralism being responsible for overstocking, desertification and insecurity. (Nori et al, 2008: 10)

Swift (2003) sets out ten myths and misunderstandings about pastoralism that have influenced and distorted policy decisions (see Box 11). These perceptions are apparent in many countries in the Sahel and East Africa, including Sudan, and have resulted in inappropriate policies and 'development' interventions such as ranching, and opening up dry season grazing through additional water points which upset the ecological balance and can result in over-grazing.[57] The failure of these livestock policies discouraged donors from investing in livestock projects: 'some now argue for a policy of benign neglect towards the dry areas on the grounds that little can be done there' (Swift, 1991: 34). Constant under-estimation of the contribution of pastoralism to the national economy (see Hesse and MacGregor, 2006, cited in section 3.3 above) reinforces the rationale

for a lack of support for this sector in favour of alternatives such as export-oriented commercial farming, for which it is easier to quantify the returns.

However, there has been growing evidence of the value of pastoralist production systems in dryland areas and of the role and significance of customary institutions in managing natural resources. For example, Swift (1991) made the case for basing modern natural resource policies on customary ways of doing things:

> Provid(ing) the framework and incentives to enable such (customary) institutions to function more effectively and to evolve in desirable ways. This probably means providing statutory support and a contemporary legal framework to facilitate conflict resolution. In some cases it will be important to encourage a movement towards greater representivity' (e.g. including women in decision-making). (p. 37)

Box 11. Swift's Ten Myths about Pastoralism

Myth 1: Nomadic pastoralism is an archaic form of production, whose time has passed

Nomadic pastoralism developed as a specialised form of production… to allow the productive use of extensive seasonal rangelands. Pastoralism is no more archaic than agriculture itself, and mobility was a feature from the beginning, allowing herders to use rich resources away from the early settlements.

Myth 2: Mobility is inherently backward, unnecessary, chaotic and disruptive

Pastoral mobility is a rational response to the scattered and uncertain distribution of natural resources. Most pastoral groups are found in environments with low and highly seasonal rainfall, where it is impossible to graze animals all year on the same pasture.

Myth 3: Most rangelands are degraded as a result of pastoral over-grazing

Grazing, like other uses, may cause a change in the plant species composition of rangelands, but if rangeland degradation is defined as a long-lasting or permanent reduction in livestock production, the evidence of widespread rangeland degradation under pastoral grazing is shaky…Grazing pressure is a less important determinant of species composition and biomass production than the amount of rain and available soil moisture.

Myth 4: Pastoralists do not take care of the land because of the 'tragedy of the commons'

The 'tragedy of the commons' analysis rests on a misunderstanding. It supposes that all commons are open access, and that anyone can use them. In such circumstances competitive grazing leading to environmental damage could indeed occur. However, most collectively grazed pastures are not open access, but are or have traditionally been collectively managed by identified groups of users. In this case, it is entirely feasible for rights' holders to agree to rules and enforce them.

Myth 5: Pastoralism has very low productivity. Sedentary cattle raising is more productive than mobile systems

Research shows that mobile pastoral systems have higher economic returns per hectare than ranching systems under similar conditions.

Summarised extract from Swift, 2003

He subsequently proposed three general principles to guide new forms of pastoral administration:

1. flexibility and diversity in pastoral administration, that may combine customary kinship institutions, customary geographic rules and institutions (for example that regulate use of and access to land-based resources, formal institutions set up by government, and hybrid institutions that combine formal and customary elements);

2. subsidiarity in pastoral administration so that administrative tasks are carried out as near to the levels of users of resources as is compatible with efficiency and accountability, and;

3. reducing the transaction costs of administration, for example avoiding the unnecessary multiplication of administrative levels

   (Swift. 1996)

A number of francophone Sahelian countries have been in the vanguard of changing their attitudes, and hence their policies, towards pastoralism in the last ten to fifteen years. Cotula et al (2005) cite pastoral legislation in a number of Sahelian countries as evidence of this shift. Often the legislation aims to reconcile different land uses, especially between pastoralism and agriculture, by allowing and regulating herd mobility. These changes in policy are explored by Touré (2005). See Table 1 below. From the mid 1990s onwards there have been a number of initiatives across francophone Sahel aimed at helping pastoral communities assume greater responsibility for NRM, specifically securing their rights of access to natural resources, improving the management of pastoral lands and encouraging more integrated farming and livestock rearing. Interesting innovations highlighted by Touré include:

• recognition of the economic importance of livestock rearing;

• reinstatement of pastoralism as a productive use of land;

• preservation of pastoral mobility;

• opportunities for herders to gain access to the strategic resources required to develop their activities;

• taking account of customary procedures in NRM;

• reinstating endogenous mechanisms for conflict arbitration and resolution.

But they also have their shortcomings, for example:

• transferring responsibilities for NRM to pastoral communities without giving them genuine decision-making powers;

• adopting a technocratic and interventionist approach that could, in the long run, reduce herders' security of access to natural resources;

• pigeon-holing production activities and different types of natural resources due to a compartmentalised view of the development of rural production systems;

• a lack of support for the reforms from herders who may not be fully aware of the issues nor the reform process itself.

Hesse[58] identifies three categories of limitations associated with these new pastoral laws:

1. the failure of government to harmonise the provisions within the pastoral laws with other laws, particularly laws relating to natural resources (water, forests, land) which deny or restrict pastoral access to or control over resources. This creates a policy/legislative confusion;

2. inconsistencies, ambiguities and omissions within the pastoral laws which potentially open up 'loop holes' that might undermine pastoralism. For example, the Niger law fails to adequately define pastoral areas and where they are located and therefore where provisions for priority access apply;

3. a lack of political will to implement the laws at national level, and even to an extent at local government level, particularly in more southerly agricultural areas.

Touré's synthesis of the lessons of the Guinea experience, seem particularly relevant to Sudan – see Box 12. Hesse and Thébaud (2006) conclude that there is a key lesson that can be drawn from many experiences in francophone Africa in which efforts

Table 1.   A summary of recent pastoral legislation in francophone countries in the Sahel

Country	Date and type of legislation	Description
Niger	1993 – Code Rural Updated with sectoral legislation on pastoralism. The *Ordonnance 2010-029 relative au Pastoralisme* has recently been passed	The Code Rural covered all productive activities in rural areas. Guarantees herders' rights of access to natural resources and their priority rights in their home grazing territories. The bill that has recently been passed legalises mobility, protects pastoral resources from alienation except in the public interest and only following compensation, recognises customary institutions and integrates decentralisation. It thus provides the legal framework to secure pastoralism.
Guinea	1995 – Code Pastoral and Code de l'élevage et des produits animaux	Sectoral legislation focused on pastoralism, to clarify herders' rights of access to natural resources
Mauritania	2000 – Code Pastoral	Sectoral legislation focused on pastoralism, defining the concepts and principles of sustainable management of pastoral lands, and rules to regulate pastoral activities. Also provides strong legal protection of mobility and pastoral resources.
Mali	2001 – Charte Pastoral	Overarching legislation regulating the use of and access to pastoral resources. Establishes rights and responsibilities of pastoralists, legalises mobility, specifies institutions for its management in line with decentralisation, recognises and defines what constitutes 'productive pastoral land use' *(mise en valeur)*.
Burkina Faso	2002 – framework law on pastoralism	Primary aim to establish the principles and modalities for sustainable, peaceful and integrated development of pastoral, agro-pastoral and sylvo-pastoral activities. Takes a static and technocratic approach based on creating pastoral reserves with the state regulating their use (eg fixing stocking rates). Seeks to settle and ring-fence pastoralists in home areas to control mobility.

Sources: Touré, 2005, and Hesse and Thébaud, 2006

Box 12. Pastoral Legislation in Guinea

The historical context in Guinea appears similar to Sudan. Land tenure legislation from the First Republic decreed that the state had eminent rights over land, and restricted individuals' rights to land in which they had invested. A more liberal system was adopted with the inauguration of the Second Republic in 1984. However, one of the reasons for the Code Pastoral in 1995 was to resolve conflicts over the movement of livestock and to improve relations between farmers and herders, particularly in transhumant reception areas. Customary systems of negotiation had worked in the past, but came under pressure with the extension of farmland, declining pastoral practices and less stringent surveillance of livestock. Also decision-making has become more fragmented as traditional leadership is contested, for example by young men and women who feel that their interests are not being taken into account. Touré's analysis is that the pastoral legislation was highly reactive in response to conflict, but that it throws up some valuable learning:

- stakeholders must fully participate in the formulation of legislation, specifically pastoralists but, in the case of Guinea, herders were poorly organised and the legislation was steered by public institutions instead. Particularly important for such specific legislation which has an impact at local level (compared with the formulation of framework law) there must be 'grassroots appropriation' of the legislation;
- information on legislation, policies and programmes must be accessible to herders, but this has not been the case in Guinea, even ten years after promulgation of the legislation;
- in formulating codes and laws, attention must be paid to how they will be implemented to ensure that the relevant institutions are viable and have sufficient authority to enforce their decisions, and there must be interaction with agencies exercising power at the local level, for example customary and local authorities. This did not happen in Guinea with the result that the vulnerable were further marginalised, and the better-informed elites implemented the parts that serve their interests;
- it is important to recognise the diversity of modes of access to resources (i.e. it is not just transhumance) in order 'to permit the promotion of local agreements through the implementation of pastoral legislation'.

Touré, 2005

have been made to support pastoralism through legislation. That lesson is that it is very important that the pastoralists themselves develop leverage to improve the policy and legislation. In so doing they can ensure they are not further marginalised by critical flaws in the legislation.

Policies affecting pastoralism in East Africa have tended to be less progressive. Hesse and Macgregor (2006:8) quote a speech by the President of the United Republic of Tanzania in 2005 to illustrate the prevailing view of pastoralism as backward and environmentally destructive, preventing the country from developing a modern livestock sector: "We will take deliberate measures to improve the livestock sector. Our people must change from being nomadic cattle herders to being settled modern livestock keepers".

In this region too, however, there is evidence of change. In September 2009, the COMESA (Common Market for Eastern and Southern Africa) Council of Ministers of Agriculture and Environment took a number of decisions related to livestock and pastoral development, including recognising the necessity of pastoral mobility as a strategy for production, trade and survival, and the importance of pastoralism to local, national and regional economies. More recently, in 2010 the African Union adopted the first continent-wide policy framework for pastoralism that states that it:

> …aims to secure, protect and improve the lives, livelihoods and rights of African pastoralists. The policy framework is a platform for mobilising and coordinating political commitment to pastoral development in Africa, and emphasises the need to fully involve pastoralist women and men in the national and regional development processes from which they are supposed to benefit. The framework also emphasises the regional nature of many pastoralist ecosystems

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Camel migration in Darfur.

Governance for Peace over Natural Resources

in Africa and therefore, the need to support and harmonise policies across the Regional Economic Communities and Member States. (African Union, 2010: i).

In Kenya, a draft policy paper for the development of Northern Kenya and other arid lands in the country sets out to protect and promote pastoralist mobility and to support the customary institutions which underpin pastoralism. Specifically, it proposes that:

The Government will:

• Recognise, through legislation, pastoralism as a legitimate form of productive land use and development on the same basis as farming, and incorporate the value of dryland goods and services within national economic planning.

• Ensure that decentralised structures accommodate mobility and resource-sharing across administrative boundaries and draw on the knowledge and experience of customary institutions. (Office of the Prime Minister, 2010: 29)

There is a growing body of literature that makes the case that pastoralism may actually be one of the livelihoods best suited to increasing climatic variability, which is widely expected to be one of the features of climate change in arid and semi-arid lands.[59] Based on research amongst the Wodaabe in Niger – among other sources – Kratli and Schareika (2010: 615) go further in demonstrating how "dryland pastoralism as an agricultural production system … exploits asymmetric distribution rather than stability and uniformity in the environment". This is summed up by Nori et al (2008:16) who state that "pastoralism is a livelihood system highly adapted to cope with environments characterised by ecological scarcity and climatic unpredictability", but its success depends upon access to different eco-zones at different times, and it is this access that could be compromised by inappropriate policy that hampers their mobility. They also make the case that pastoralists may be "one of the best detectors of environmental change" because of their profound knowledge and experience of complex ecosystem dynamics (ibid: 5). However,

pastoralism is under considerable pressure across the Sahel (and elsewhere in the world) from:

1. population growth, as the technical possibilities of increasing rangeland productivity sustainably are limited;

2. economic differentiation which is affecting the way that livestock are reared, and driving a trend towards the enclosure of water points and pastures for private use. (According to some estimates absentee livestock owners own around 50% of the Sahelian livestock herd, as quoted in Nori et al);

3. changing gender and generational relationships within pastoral societies, most evident as young men challenge traditional leadership structures and engage in armed commercial raiding, banditry, and enrolment in insurgent movements;

4. the weakening of customary institutions and poor governance which undermines systems for managing competing access to resources. (ibid).

Despite this, there is a new-found optimism about the future of pastoralism, summarised by Swift (2003): "A more realistic vision of future pastoralism envisages a flourishing economy, with well-educated and successful pastoral producers, no longer marginalised from mainstream society". This is predicated on rethinking a number of policies, for example:

1. *the basic structure of the pastoral economy* must recognise how the main production inputs are provided through non-market mechanisms (in contrast to a ranching model), for example land is accessed communally through lineage and other social relationships, and livestock are mainly acquired through social mechanisms, especially family inheritance;

2. *policies to manage dry lands sustainably:* land use policies that halt encroachment by farmers and nature conservationists onto pastoral land must be promoted, except where multiple uses, of benefit to all, can be negotiated; there must be greater capital investment in rangeland e.g. providing water or rehabilitating degraded

agricultural land; positive examples of pastoralist associations managing pastures and water (usually based on customary systems) should be built upon and given formal backing by government;[60]

3. *clarifying and strengthening pastoral tenure systems*, for example corporate tenure for pasture and high capacity water points whereby 'well-defined, usually kin-based associations of herders, who negotiate among themselves stocking rates, rules, responsibilities and management objectives. The state can retain overall ownership of such resources, while granting long (50 year) renewable leases to pastoralist groups under well-defined conditions about the quality of use, and providing an accepted legal framework to settle disputes which cannot be resolved by the herders themselves' (ibid: 10).[61]

To support this vision, a mixed approach to governance is required:

Varying with local circumstances, of formal and informal institutions and rules, and this mix should move towards greater involvement and responsibility for strengthened informal institutions. The role of formal government should be to provide a framework within which customary local institutions and rules regulate everyday economic and political affairs. (Swift, 2003: 14)

For example, formal government could provide the legal framework for natural resource tenure, and for a devolved pastoral administration. It could mediate conflict as an arbiter of last resort, and be a guarantor of minimum democratic processes in local administration, recognising that customary institutions can be hierarchical and undemocratic (ibid).

The voice of indigenous people, including pastoralists, is also being promoted in international environmental programmes such as the UN REDD+ Programme (United Nations Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries). The REDD+ process places emphasis on wide consultations with indigenous populations and resource users, which may support sustainable co-management of resources in such instances. In addition, the REDD+ process requires social and environmental impact assessments, which include the recognition of the customary land rights of indigenous populations, and which consider local best practices for NRM (UN REDD, 2009).

8 Conclusions and Recommendations

As this review demonstrates, the thinking and practice behind approaches to sustainable and equitable environmental governance have evolved over time. The African continent, and especially the Sahel, is a source of rich experience and reflection of what has worked in different contexts and why. There is a correspondingly rich literature to draw upon that documents failure as well as success and offers valuable learning from the analysis of both.

This experience is of immediate relevance to rural Sudan in the search for approaches to NRM that move beyond competition between livelihood groups that can quickly become violent in a context of conflict, to approaches that promote the concept of interdependence and co-management. At the heart of

co-management is power-sharing, based on negotiated, joint decision-making mechanisms that involve all relevant actors, recognising their diversity and building upon their complementarity. Rather than a fixed set of rules, the concept of co-management is of a dynamic process of partnership. It is underpinned by some of the basic principles of good governance, including equity and participation.

The principles and basic premise of co-management can be introduced into the thinking and dialogue about NRM in Sudan, exploring what this might mean in practice and identifying examples of where this already exists, is effective, and can be built upon. Similarly, the participatory management of ecosystems as a whole, rather than considering particular demands for natural

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A woman moves with her belongings on a cattle migration in Darfur.

resources in isolation, needs to be integrated with emerging recovery and development initiatives.

Experiences of co-management of natural resources that have worked, usually at the local level based upon local agreements, have usefully been documented. As in the case of the Borana in southern Ethiopia, some of these processes have been facilitated by external actors, for example INGOs. Where customary approaches to NRM have been at their most effective, these are often examples of co-management, and this includes co-management of common property resources.

One of the challenges for customary approaches, however, is how they evolve alongside processes of modernisation, the assertion of formal state structures and the increasing commercialisation of agriculture and livestock production. Sudan's experience of the declining effectiveness of Native Administration in sustainable and equitable NRM illustrates these challenges well. How to combine customary and statutory regimes is a dominant theme in much of the literature on environmental governance at the national and local levels (and indeed in the wider literature on governance in Africa). What clearly emerges is that there is no blueprint or road map, and that the distinction between customary and statutory, informal and formal systems is rarely as stark and clear-cut in practice as it may appear in theory. For decades, government policy in many African countries has favoured the wholesale replacement of customary systems, particularly around land tenure, with formal and modern systems. However, this is now giving way to a growing awareness that land policies and laws that build on local practice are likely to be the most effective. International environmental governance supports this: REDD+ for example emphasises the inclusion of the indigenous voice.[62] The challenge is finding a way of integrating customary and statutory systems. This can be a messy and complex process, but it must be contextually specific, building on local practice, and based upon a profound knowledge of local dynamics, especially power dynamics, of

Brickmaking has boomed during the conflict in Darfur as a result of the inflated housing market related to the international humanitarian and peace-keeping presence. The industry has provided an important source of income for displaced communities but has come with a considerable environmental impact.

A well-managed agricultural shelter belt in Northern State. In order to reduce desertification, 20% of agricultural land should be planted with forestry. In practice this figure is rarely achieved.

customary processes. There are positive examples to learn from, for example, on land tenure. Kenya's new Land Policy of 2007 recognises and protects customary rights to land, formally recognising community land for the first time, and is based on a hierarchy of institutions from community to national level. But support to, or integration of customary institutions and mechanisms must not be uncritical, nor should it mean enshrining inequitable or gender-blind customary systems in statutory law. Formal and statutory mechanisms may need to play a key role in protecting the rights of the marginalised and in ensuring the representation of all.

Experience from elsewhere and the discussion of international principles around environmental governance both point to the importance of the role of women. This is reinforced by the key tenets of co-management – the inclusion and representation of users of resources in decision-making. The significance of women as resource users, in the home and in pursuing livelihood strategies reconfirms the importance of their inclusion in resource management. Similarly the role of youth and other marginalised groups are important: youth are particularly significant given the process of demographic change in Sudan and the 'youth bulge'. Here, again, environmental governance needs to evolve in response to a changing context and to do so peacefully and inclusively in order to mitigate tensions that emerge from antiquated systems that no longer meet current demands nor the needs of all local stakeholders.

As regards entry points for work in this area, numerous opportunities are available in a dynamic context[63] such as Sudan. Policy work is likely to be more effective if linked with implementation – the practical activity draws together stakeholders and grounds the process of policy-making in the realities at local level. Practical programming can implement models that may subsequently be developed into policy and institutional capacity.

Study tours have proven effective in Darfur in building a shared vision for new forms of governance – UNEP found experience of the shift to more equitable and participatory water resource management in South Africa resonated well with Darfuri water sector colleagues.

There has been a general trend across much of the African continent, including Sudan, towards decentralisation of power and of natural resource management. This can contribute to promoting local, contextually-specific approaches to environmental governance. Where this has failed, however, has often been due to there being only partial devolution of authority to the local level, resulting in the state and local people having different expectations of what devolution it is supposed to achieve. Key features of successful devolution of NRM include local people having strong shared objectives and being well-organised, and having a good comprehension of the relevant legislation.

Efforts across the Sahel to recognise the rights of pastoralists and the common property regimes on which they usually depend is a particularly rich vein of experience to draw upon that illustrates much of the above. Analysis of these efforts emphasise the critical importance of involving the key stakeholders in the process of review and reform if new legislation and structures are to work, and the importance of transferring decision-making powers as well as responsibility for NRM. Political will to follow through and implement new pastoral laws is critical.

A breakdown in environmental governance (often customary forms of governance) in relation to land tenure and land rights has been, and continues to be, at the heart of most of Africa's conflicts, at least since the 1990s, and Darfur is no exception. In these conditions legal pluralism may be at its most dynamic as informal legal fields proliferate. At best, this may provide welcome room for manoeuvre and negotiation thus reducing the likelihood of violence in a peace process. At worst, legal pluralism may undermine any peace agreement and may facilitate land-grabbing. Which scenario prevails will depend upon the local context. Few peace processes across Africa, however, have successfully addressed land grievances and have thus stored up problems for the post-conflict phase. Nevertheless, there is now valuable experience

and learning to be drawn upon for dealing with land tenure in the peace process. Ensuring that land and environmental governance issues are placed high on the peacemaking agenda and given emphasis in the follow up and implementation is essential.

Recommendations

Based on this review of environmental governance it is recommended that:

1. **Processes of consultation for institutional and constitutional reform should be supported with exposure to developments in environmental governance from across Africa.** Awareness of principles and concepts, successes and failures in environmental governance would enhance dialogue over the links between environment, livelihoods, conflict mitigation and governance. These links are important in discussions about managing natural resources between different communities and therefore in consultations about constitutional arrangements. This is particularly relevant to the **Darfur Internal Dialogue and Consultation** and to the ongoing consultations over the **new constitution** in Sudan.

2. **The concepts of equitable participatory environmental governance should inform peace processes in Sudan.** Negotiators should be informed of viable models for, and experience of, peaceful co-management of resources so that institutions and protocols mandated in peace agreements can draw upon these. Promoting awareness of these concepts and experiences will support the development of equitable environmental governance in areas emerging from conflict in which control of natural resources has had a role. This would be relevant to the border areas of Sudan and South Sudan; to peace processes that may emerge in **Blue Nile** and **South Kordofan** states; and to the implementation of the **Doha Document for Peace in Darfur.**

3. **The ideas from across Africa reviewed in this report should be made available to inform reform and development of environmental policy and institutions in Sudan.** Support

should be given to **capacity building for line ministries** with a coordinated approach at both State and Federal level. Such support should include technical exchanges with other countries and joint reviews of best practice. In particular, the **Darfur Regional Authority** should be supported in its efforts to formulate policies and build institutions that mitigate conflict over natural resources.

4. **Support should be given to projects that pilot and demonstrate innovation and best practice on environmental governance** – inclusive processes such as Community Based Natural Resource Management, integrated wadi catchment management (and IWRM in general) and community forestry. Where environmental projects (such as tree planting) are implemented in order to promote peace, then equitable environmental governance at local and regional levels must be emphasised within these projects. For example, tree planting alone does not promote peace, but resolving issues of land tenure for contested forestry, establishing participatory forest committees and supporting revenue sharing from forest livelihoods contribute to peace, and tree planting would be an appropriate component of such projects. Similarly, water projects need an emphasis on participatory decision-making, equitable water sharing, cost recovery and maintenance, in addition to the provision of pumps and hafirs.

5. **Social and environmental impact assessments of development projects, agricultural projects and concessions, mining and peacekeeping operations should include a sound understanding of the governance context in which they operate.** Where there is a dynamic process in governance or a context of legal pluralism (both of which are common in Sudan) then these assessments should identify how the interventions would influence this process. The scope of such assessments would include impacts through land use, procurement, and empowerment of stakeholders identified as interlocutors and consultees. The intervention may impact the ongoing

interaction of formal government, traditional leadership, civil society and community representatives – this impact should be identified and the potential consequences analysed. For example, if hafirs are built through humanitarian aid, then the work should be undertaken in collaboration with **both** formal government bodies such as the state water corporation **and** with local community or traditional leadership to ensure consultation around community access and to clarify responsibilities for management and maintenance of the hafir. Project procedures should support best practice in the collaboration between communities and government in management of projects and their results, drawing on the principles of co-management.

6. **The principles and practices identified in this report should be developed further in the context of thematic areas within environmental governance – to draw out the implications, for example, for water resource management, forestry, agriculture, livestock production and mining.** Important emerging initiatives on this include Integrated Water Resource Management, National Adaptation Plan – (NAP and NAPA), REDD Plus, Integrated Coastal Zone Management, and work on pastoralist livelihoods. In addition to the issues addressed in this report, further attention is needed on ecosystems management and the green economy.

7. **Best practice and experience of participatory policy-making on environmental governance should inform cross cutting issues in strategic plans. These would include capacity building, conflict sensitive approaches and the environment.** In the UN context these have all been highlighted as cross cutting in the 2013-16 Sudan UNDAF.[64] Other processes would include government strategic planning, the Humanitarian Work Plan and UNAMID/UNCT joint planning mechanisms. These features should be emphasized in the follow up to the Darfur Joint Assessment Mission and the implementation of the Strategy for Recovery in Darfur.

Glossary

Co-management of natural resources	A process of collective understanding and action by which human communities and other social actors manage natural resources and ecosystems together, drawing from everyone's unique strengths, vantage points and capacities (Borrini-Feyerabend et al, 2007: xxx)
Environmental governance	The norms, rules and institutions that regulate the actions and interactions of government, civil society and the private sector in relation to the environment
Gender equitable land tenure	Equitability (fairness) between women and men in matters of land tenure governance… through both formal institutions and informal arrangements for land administration and management (Daley and Mi-young Park, 2011: 2)
Hafir	A small reservoir
Khorr	A small *wadi*
Land tenure	The relationship, whether defined legally or customarily, among people with respect to land (FAO, 2007: 3)
Land administration	The way in which the rules of land tenure are applied and made operational. It includes land registration, land use planning, land consolidation, land management and property taxation (FAO, 2007: 3)
Legal Pluralism	Refers to separate social fields of 'legality' overlapping and interacting, often a mixture of customary, statutory and hybrid
Subsidiarity	The delegation of authority to the most appropriate level of governance (often interpreted and advocated as the delegation of authority to lower levels of governance)
Wadi	An ephemeral river

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Annex 1

Rio Declaration on Environment and Development

The United Nations Conference on Environment and Development,

Having met at Rio de Janeiro from 3 to 14 June 1992,

Reaffirming the Declaration of the United Nations Conference on the Human Environment, adopted at Stockholm on 16 June 1972, a/ and seeking to build upon it,

With the goal of establishing a new and equitable global partnership through the creation of new levels of cooperation among States, key sectors of societies and people,

Working towards international agreements which respect the interests of all and protect the integrity of the global environmental and developmental system,

Recognizing the integral and interdependent nature of the Earth, our home,

Proclaims that:

Principle 1

Human beings are at the centre of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature.

Principle 2

States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental and developmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.

Principle 3

The right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations.

Principle 4

In order to achieve sustainable development, environmental protection shall constitute an integral part of the development process and cannot be considered in isolation from it.

Principle 5

All States and all people shall cooperate in the essential task of eradicating poverty as an indispensable requirement for sustainable development, in order to decrease the disparities in standards of living and better meet the needs of the majority of the people of the world.

Principle 6

The special situation and needs of developing countries, particularly the least developed and those most environmentally vulnerable, shall be given special priority. International actions in the field of environment and development should also address the interests and needs of all countries.

Principle 7

States shall cooperate in a spirit of global partnership to conserve, protect and restore the health and integrity of the Earth's ecosystem. In view of the different contributions to global environmental degradation, States have common but differentiated responsibilities. The developed countries acknowledge the responsibility that they bear in the international pursuit of sustainable development in view of the pressures their societies place on the global environment and of the technologies and financial resources they command.

Principle 8

To achieve sustainable development and a higher quality of life for all people, States should reduce and eliminate unsustainable patterns of production and consumption and promote appropriate demographic policies.

Principle 9

States should cooperate to strengthen endogenous capacity-building for sustainable development by improving scientific understanding through exchanges of scientific and technological knowledge, and by enhancing the development, adaptation, diffusion and transfer of technologies, including new and innovative technologies.

Principle 10

Environmental issues are best handled with the participation of all concerned citizens, at the relevant level. At the national level, each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities, and the opportunity to participate in decision-making processes. States shall facilitate and encourage public awareness and participation by making information widely available. Effective access to judicial and administrative proceedings, including redress and remedy, shall be provided.

Principle 11

States shall enact effective environmental legislation. Environmental standards, management objectives and priorities should reflect the environmental and developmental context to which they apply. Standards applied by some countries may be inappropriate and of unwarranted economic and social cost to other countries, in particular developing countries.

Principle 12

States should cooperate to promote a supportive and open international economic system that would lead to economic growth and sustainable development in all countries, to better address the problems of environmental degradation. Trade policy measures for environmental purposes should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade. Unilateral

actions to deal with environmental challenges outside the jurisdiction of the importing country should be avoided. Environmental measures addressing transboundary or global environmental problems should, as far as possible, be based on an international consensus.

Principle 13

States shall develop national law regarding liability and compensation for the victims of pollution and other environmental damage. States shall also cooperate in an expeditious and more determined manner to develop further international law regarding liability and compensation for adverse effects of environmental damage caused by activities within their jurisdiction or control to areas beyond their jurisdiction.

Principle 14

States should effectively cooperate to discourage or prevent the relocation and transfer to other States of any activities and substances that cause severe environmental degradation or are found to be harmful to human health.

Principle 15

In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.

Principle 16

National authorities should endeavour to promote the internalization of environmental costs and the use of economic instruments, taking into account the approach that the polluter should, in principle, bear the cost of pollution, with due regard to the public interest and without distorting international trade and investment.

Principle 17

Environmental impact assessment, as a national instrument, shall be undertaken for proposed activities that are likely to have a significant adverse impact on the environment and are subject to a decision of a competent national authority.

Principle 18

States shall immediately notify other States of any natural disasters or other emergencies that are likely to produce sudden harmful effects on the environment of those States. Every effort shall be made by the international community to help States so afflicted.

Principle 19

States shall provide prior and timely notification and relevant information to potentially affected States on activities that may have a significant adverse transboundary environmental effect and shall consult with those States at an early stage and in good faith.

Principle 20

Women have a vital role in environmental management and development. Their full participation is therefore essential to achieve sustainable development.

Principle 21

The creativity, ideals and courage of the youth of the world should be mobilized to forge a global partnership in order to achieve sustainable development and ensure a better future for all.

Principle 22

Indigenous people and their communities and other local communities have a vital role in environmental management and development because of their knowledge and traditional practices. States should recognize and duly support their identity, culture and interests and enable their effective participation in the achievement of sustainable development.

Principle 23

The environment and natural resources of people under oppression, domination and occupation shall be protected.

Principle 24

Warfare is inherently destructive of sustainable development. States shall therefore respect international law providing protection for the environment in times of armed conflict and cooperate in its further development, as necessary.

Principle 25

Peace, development and environmental protection are interdependent and indivisible.

Principle 26

States shall resolve all their environmental disputes peacefully and by appropriate means in accordance with the Charter of the United Nations.

Principle 27

States and people shall cooperate in good faith and in a spirit of partnership in the fulfilment of the principles embodied in this Declaration and in the further development of international law in the field of sustainable development.

Annex 2

Darfur Climate Change Vision Document

Vision Document

Preamble

The Darfur region faces acute vulnerability to the impact of climate change. The impact includes increasing climatic variability particularly increasing frequency of drought. In North Darfur this is already evident with 16 of the driest 20 years on record having taken place since 1972. The significance of this is that it translates into increasing vulnerability for the people in Darfur in the form of failed harvests and challenges for pastoralism.

Climate change has to be seen in the context of other processes of change. In addition to climate change these processes include, for example: population growth; migration; rapid urbanisation; environmental degradation; restricted access to natural resources, technological and economic changes; and the impacts of conflict.

Consequently adaptation and recovery programmes need to address these issues holistically. Examples would include:

- Integrating support to both urban and rural livelihoods programming into a forestry progamme (eg processing fruits in towns for export).

- The National Adaptation Plan of Action (NAPA) project for South Darfur plans for water harvesting, crop production, range management, animal production, forestry and horticulture.

- Integrated approaches such as addressing water and forestry together with catchment management programmes.

Increasing climate variability puts an emphasis on the need for drought cycle management which includes programmes such as fodder supply, destocking and restocking and water resource management. Mitigating the impacts of the conflict includes reversing the adoption of "maladaptive" livelihood coping strategies. Maladaptive strategies are livelihood activities that are unsustainable or have negative impacts on others.

Adaptation to climate change and concurrent processes of change and longer term recovery requires evidence-based policy and programmes built on applied research and best practice. The work will require an emphasis on building capacity of line ministries, civil society and communities and supporting the process of collaboration between customary and statutory governance. The current insecurity in the Darfur region was an issue that pervaded all the group discussions during the retreat and needs to be considered in the development of implementable plans for programmes in Darfur.

Vision

Work done by six thematic groups contributes towards a future vision for Darfur, beyond short term humanitarian action, that is based upon:

- A more urbanised settlement pattern, based on sound structural plans and, therefore, urban economy.

- The combination of a rural economy based on higher value livestock, forestry and agricultural products (cash crops) and an urban economy that is based on the processing of those products. Research to underpin the development of appropriate economic planning.

- Pastoralists shifting to more economic production systems of livestock based on a number of livestock production models (transhumance, ranches, zero grazing). Services being adapted to serve those engaged in the different production models. If essential services are provided to transhumant pastoralists, many will eventually choose to settle, and pastoralist systems will become more sustainable and economically productive.

- IWRM, including catchment management and urban pollution control for effective, sustainable and inclusive management of water.

- Achieving sustainable forestry resources, through reforestation, afforestation and conservation.

- Agricultural innovation building on what local communities are already doing successfully.

- Promotion of alternative energy and construction methods.

- Community-based approaches that make increased use of local institutions such as Village Development Committees (VDCs) and service delivery sub-committees

- Underpinning all of the above by aligning and ensuring complementarily between federal state and customary laws, especially relating to land tenure.

- Capacity-building of formal and informal institutions.

Priorities Identified

Trade and the economy

- Planning for the transition from Darfur's somewhat artificial emergency economy to a future more sustainable economy.

- Improved infrastructure eg transport and communications, energy and water infrastructure.

- Increased provision of banking facilities and micro-credit.

Pastoralist livelihoods

- Recognition of the importance and needs of livestock mobility to the future of pastoralist livelihoods.

- Education for pastoralists including skills based training and adult literacy targeting youth and women.

- Pasture rehabilitation.

- Research on new patterns of animal disease (related to climate change).

- Developing a model for pastoralism, learning from experiences inside and outside Darfur.

- Awareness-raising among pastoralists on climate change adaptation and improvement of quality of livestock production.

Forestry

- Projects that promote participatory reforestation and afforestation.

- Capacity-building of formal and informal institutions, ranging from local communities to the FNC, raising awareness of, and providing training in nursery techniques and tree planting.

Agricultural innovation

- Agro-forestry, including integrating fruit trees, fodder trees and the planting of shelter belts into the agricultural system.

- Managing scarce water resources between livestock and agricultural production.

- Technology that promotes sustainable agriculture eg soil conservation.

- Promotion of crop and herd diversification.

Energy and construction

- The development of policies, legislation, standards and guidelines on construction and energy.

- The immediate adoption of alternative building technologies by government, UN and INGOs for all new buildings.

- Government, UN and INGOs developing appropriate alternative energy sources.

Water resource management

- Capacity building for government and civil society for water user and water management forums.

- Multi-purpose water harvesting projects with community management.

- Integrating water management, forestry, agriculture and livelihoods projects as first step towards catchment management.

- Capacity building programme for maintenance of surface water e.g. hafirs and dams.

Note on process

The retreat was held on 23-24 March 2010 at Crimson Lights restaurant in El Fasher, North Darfur. The retreat was hosted by the office of the Deputy Resident / Humanitarian Coordinator of the UN for Sudan (Darfur) in collaboration with the Ministry of Environment and Physical Development represented by the Higher Council for Environment and Natural Resources. The stated objectives of the workshop were:

- To consult with practitioners and decision makers and draw on action research; lessons learned; policy and practice in order to develop a vision for adaptation to climate change in Darfur.

- To facilitate collaboration among stakeholders to work towards the development of a recovery strategy for Darfur.

In this document the preamble provides a summary of technical presentations made by the Higher Council for Environment and Natural Resources (www.hcenr.org); the Agricultural Research Station, Nyala; UNEP (http://postconflict.unep.ch/publications.php?prog=sudan) and Tufts University, Feinstein International Centre (http://go.tufts.edu/FIC-Darfur).

The vision and priority action points were identified with the following process. After the technical presentations, thematic groups were established that discussed the following five questions relating to adaptations in Darfur: (1) What are the short-term adaptations taking place? (2) What is driving these adaptations? (3) Which of these are 'maladaptations'? (4) What are the implications of the above for sustainable livelihoods in Darfur in the longer term? (5) What are the priorities for action?

The outputs of these groups were reviewed and commented on in plenary with a "gallery walk" by all groups to review the flipcharts produced by each group. From the annotated records of the thematic groups a draft vision statement and priority action list was written by a technical secretariat (UNEP and Tufts), which was reviewed and revised by the thematic working groups. The output of this process forms this document. (Initially a water resources group was not included, but the meeting requested a group which was formed during the gallery walk and moved straight to preparing the vision and priorities sections.) Detailed records of the discussion and more details of the conference are available at http://climatechange.sudanct.net

Annex 3

A Review of Peace Agreements in Africa and How Land Issues were Addressed

Angola

Lusaka Protocol (2004)

www.c-r.org/our-work/accord/angola/lusaka-protocol.php#6

Extent to which land/resources were an issue

Land was a serious issue during the conflict. Its distribution and ownership, along with the income generated from it, was the cause of significant inequalities among the Angolan population.

While not necessarily a cause of the conflict, access to resources played an important role in fuelling it. The UNITA rebels controlled much of the country's diamond fields while the country's oil wealth was a big incentive for power. UNITA's success in mining diamonds and selling them abroad at an inflated price allowed the war to continue even as their domestic support deteriorated. The UN estimates that UNITA made at least $3.72 billion from diamond sales.

How was that issue dealt with?

The Lusaka Protocol was a comprehensive peace agreement signed by the government of Angola and the UNITA rebel movement. The principal parts of the agreement concerned demobilisation of the UNITA rebels and developing 'national reconciliation', which included a power-sharing deal between the government and the rebels, giving UNITA members key posts in the government.

The land / resources issue was not addressed in the peace agreement beyond the provision of housing for key UNITA members serving in government. The proposed demobilisation of UNITA would indirectly, of course, bring diamond fields back under government control. Fundamentally the peace agreement focussed on the allocation of state power. However, this agreement did not hold and the war continued until 2002 when the UNITA leader, Jonas Savimbi was killed and the rebel organisation was defeated militarily.

With no provisions to address land rights in the peace process, the structural problem remained whereby land ownership was concentrated in the hands of the political elite, members of the armed forces and businessmen, at the expense of the rest of the population. It was not until the end of the war in 2002 that the land issue came to the fore through the drafting of a new Land Bill. This brought the land issue to the centre of national debate and brought greater clarity on a variety of issues including the right of communities to titles granting them ownership rights and the right of communities to recover land taken unlawfully from them during the colonial period.

Sources:

http://www.c-r.org/our-work/accord/angola/land-peacebuilding.php

http://www.c-r.org/our-work/accord/angola/lusaka-key-points.php

http://www.c-r.org/resources/policy-briefings/angola-policy-briefing.php

Governance for Peace over Natural Resources

Mozambique

General Peace Agreement (1992)

http://www.c-r.org/our-work/accord/mozambique/rome-process.php

Extent to which land/resources were an issue

The war in Mozambique was principally a struggle for power between the Marxist-oriented FRELMO government and an anti-Communist resistance group RENAMO. Both sides received significant international support with the Soviet Union backing FRELIMO and Rhodesia and then South Africa backing RENAMO.

Control of land and resources was not a key dynamic in the conflict, but land was nonetheless a significant issue. For the Marxist FRELIMO party, nationalizing ownership of land and centralizing control over land and its resources was a critical component in the drive to construct socialism throughout the country. While the state assumed ownership over land, smallholder families and communities retained their use rights to the land they occupied under customary tenure.

How was that issue dealt with?

The General Peace Agreement was signed between President Chissano of Mozambique and the president of RENAMO Afonso Dhlakama in Rome. It combined four previous protocols signed by the government and RENAMO to finalise the peace process. A ceasefire came into place after its ratification, followed by the phased cessation of hostilities and integration of the combatants into a new army of 30,000. The remaining combatants were disarmed and demobilised under UN supervision. This was followed by the transformation of RENAMO into a political party and the holding of free multiparty elections one year later, which took place successfully.

The issue of land was not directly addressed in the peace agreement but became an issue of controversy in the immediate post-war period. Government agencies began haphazardly distributing land rights to new and returning private, national and foreign enterprises as well as to government officials through the privatisation of the vast state farm sector, reactivation of former colonial titles, and granting of concessions. It is estimated that by May 1994, 40 million hectares of land, more than half of Mozambique's total area, had been granted in concessions or 'sold' to commercial enterprises. This practice helped to create the emergence of a new category of post-war displaced families.

Despite numerous land-related problems reported in the daily press and by rural Mozambicans, private investors, NGOs and other civil organisations operating in rural areas, the government remained largely silent on the issue of land tenure reform. A 1993 joint government-UN report on the transition from emergency assistance to reconstruction did not even mention land issues. Two years after the war there was still no government mechanism to monitor land concessions or occupation and not department or agency within government that could monitor grants and determine community land rights.

A 1994 article on the issue of post-war land reform stated that there was:

"an urgent need for comprehensive discussion on land policy reform, natural resource management, and decentralised access to and control over resources. This discussion must address fundamental questions, including what types of land rights will exist, or more specifically what types of property rights will be permitted; who will have the power to distribute land rights; and how and by whom land disputes will be settled."

(G. Myers, 'Competitive Rights, Competitive Claims: Land Access in Post-war Mozambique', *Journal of Southern African Studies*, Vol. 20, Number 4, (1994), p. 605)

Once multi-party elections were completed in 1994, the government was able to make more progress on the issue of land reform. Over a period of four years, three key pieces of legislation were developed and approved: the Land Law, the Land Regulations and the Technical Annex. This legislation was the product of collaboration between government, civil society and the NGO community (including religious organisations). The result was a set of solid instruments for legitimate policy implementation that has been praised by international organisations such as the FAO.

Source: www.fao.org/docrep/003/x8050t/x8050t04.htm

Sierra Leone

Lomé Peace Agreement (1999)

http://www.sierra-leone.org/lomeaccord.html

Extent to which land/resources were an issue

The role of resources in conflict in Sierra Leone was important but not in what might be seen as the traditional sense. There was undoubtedly a sense among the youth who largely made up the rebel RUF movement, that neither they nor the people at large saw much benefit from the country's rich diamond fields run by the government. However, this was only a small factor in the instigation of the conflict.

Instead, resources became much more significant as the conflict went on. Once they had lost the support of the civilian population, the RUF was driven into a guerrilla insurgency in which they needed backing and arms from Charles Taylor in Liberia. In return for this support Taylor took vast quantities of diamonds from the fields in Sierra Leone, most of which were controlled by the RUF. In this way, the country's resources became crucial in prolonging the conflict, a role far more significant than they had played in actually starting it.

How was that issue dealt with?

The Lomé Peace Agreement was signed by the government of Sierra Leone and the Revolutionary United Front (RUF) rebels, in July 1999. The agreement was a follow-up of the 1996 agreement, which had been violated by all parties to the conflict. The Lomé Agreement provided for a UN-monitored and a new national army made up of both parties. Although the rebels were to go through a DDR process, the agreement gave them extremely favourable terms via a power-sharing agreement at all levels of government, with the leader of the RUF, Foday Sankoh assuming the position of Vice President. In addition, the previously imprisoned Sankoh was given the position of Chairman of the Commission for the Management of Strategic Resources.

However, the agreement did not hold as elements of the RUF re-entered hostilities. The conflict only ended in 2002, following foreign intervention and the death of Sankoh.

In terms of resources, the most significant part of the agreement was the appointment of Sankoh to lead the Commission for the Management of Strategic Resources. This was an extraordinary concession to make as the Commission would essentially be in charge of managing the country's diamond fields where much of the fiercest fighting had taken place. The agreement set out a new approach to the exploitation of gold and diamonds and the use of their proceeds, but there was some confusion and conflict related to the role or powers of the CMRRD. While the agreement called for the Ministry of Mines to carry out its normal functions, including the issuing of mining licences, it also nullified all previous concessions and banned "all exploitation, sale, export or any other transaction of gold and diamonds except if allowed by the CMRRD".

On paper, the CMRRD was to be an autonomous body, whose head was responsible only to the president. Amidst such confusion, the CMRRD was never really constituted and Sankoh simply ignored his appointment and continued to fund his military and political programmes through mining proceeds from RUF activities in Kono District.

Useful source: http://www.c-r.org/our-work/accord/sierra-leone/contents.php

Liberia

Accra Peace Agreement (2003)

http://www.usip.org/files/file/resources/collections/peace _ agreements/liberia _ 08182003.pdf

Extent to which land/resources were an issue

The primary conflict dynamic in Liberia was the struggle for state power along ethnic lines and so the issues of land and resources were not the principal cause of conflict. During the course of the country's wars there was however ruthless exploitation of forestry, mineral and other natural resources for the purposes of self-enrichment and for the financing and arming of private militias.

While land rights were not a key grievance of the rebel groups, the extensive and protracted nature of the conflict in Liberia has made the land issue an extremely significant one and one that threatens to undermine the future stability of the country.

The extended duration of the conflict devastated the systems that regulated access to land before the outbreak of hostilities. Violence often deliberately targeted the infrastructure of state and non-state institutions and authorities. The war provided an opportunity for individuals to settle scores, loot and destroy which often centred on property and land.

The conflict in Liberia displaced hundreds of thousands of people and the main problems occurred when those refugees came to return to their place of origin. The repeated dispersal of the population forced individuals and groups to forge new networks upon which they could rely, which in turn produced new informal systems of authority and power. Old linkages were severed or irreversibly altered.

How was that issue dealt with?

A Comprehensive Peace Agreement was signed in Accra in 2003 between the Government of Liberia and the rebel groups LURD and MODEL. This peace agreement stipulated a transitional power sharing government, the National Transitional Government of Liberia. The parties reaffirmed an earlier ceasefire and agreed to a national process of cantonment, disarmament, demobilisation, rehabilitation and reintegration of the armed forces. Further stipulations included a new national army, a restructuring of the security forces, a National Police Force, an Immigration Force, a Special Security Service, custom security guards and other statutory security units. It also called for elections to be held no later than 2005, and had articles on the repatriation of refugees and IDPs, and recommendations for a general amnesty and the establishment of a truth and reconciliation commission.

As mentioned in the previous column, the return of refugees and IDPs has created a serious problem in terms of land rights and one that has threatened the sustainability of peace. Article XXX of the Accra Peace Agreement states that:

1a. The NTGL, with the assistance of the International Community, shall design and implement a plan for the voluntary return and reintegration of Liberian refugees and internally displaced persons, including non-combatants, in accordance with international conventions, norms and practices.

b. Refugees or internally displaced persons, desirous of returning to their original Counties or permanent residences, shall be assisted to do so.

c. The Parties commit themselves to peaceful co-existence amongst returnees and non-returnees in all Counties.

Beyond this, however, there are no details of the plan for the return of refugees and there are no specific provisions made for the issue of land.

In 2008, the Truth and Reconciliation Commission, set up by the Accra Peace Agreement, reported that land disputes were a key threat to peace and that if the issue was not addressed there was a strong likelihood of a return to violence. It also argued that the planned land commission would not be sufficient to deal with the crisis. NGOs report at least 250 deaths due to land disputes since the end of the war in 2003.

President Ellen Johnson-Sirleaf announced in 2009 that the government would set up a fund to compensate returnees forced to relocate. But many want to mount legal battles to reclaim their land instead, and cannot afford to. A national land commission was appointed in August 2009 with the objective of reviewing land policy.

Source:

www.alertnet.org/thenews/newsdesk/IRIN/ff8db639fc6363cfdf9b3a39544b51bc.htm

Norwegian Refugee Council, *The Logic of Land*, (2010)

http://www.nrc.no/arch/img.aspx?file _ id=9481898

Chad

Tripoli II Agreement (2002)

http://www.pcr.uu.se/gpdatabase/peace/Cha%2020020107.pdf

Yebibou Agreement (2005) – *No copy available*

Extent to which land/resources were an issue

The Movement for Democracy and Justice in Chad (MDJT) was formed in 1998, when it launched an armed insurgency in northern Chad under the leadership of President Idriss Deby's former defence chief, Youssouf Togoimi. He sought to overthrow the government, which he claimed was 'dictatorial'. The clash should also be seen in ethnic terms as Togoimi was a Toubou and Déby a Zaghawa. Land and resources were not a significant issue in this conflict which centred around power structures and ethnicity.

How was that issue dealt with?

In 2000, Chad's President Idris Deby initiated talks with what was, at the time, the only remaining active rebel group, MDJT. The negotiations were held in Sirte, Libya, and Colonel Ghadafi was reportedly instrumental in bringing them about. However, no progress was made until January 2002, when a peace agreement was signed, known as the Triopoli II agreement. However, the agreement broke down after only a few months, with both sides accusing the other of violating the accord. Subsequently, fighting ensued and in September 2002, MDJT's leader, Youssouf Toigoimi was killed. This event caused splits within the movements, resulting in a faction under Brig. Gen. Adoum Togoi breaking away and signing a ceasefire agreement with the government. The accord was, however, rejected by the mainstream MDJT.

Negotiations between MDJT and the Government restarted in 2004 and continued in 2005 and lead to the signing of a peace agreement 18 Augusti 2005. The name of the agreement is Yebibou Agreement 2005 and it contained twelve points, the first being the establishment of an immediate ceasefire followed by the suspension of all military actions.

The peace agreements between the government and the MDJT in 2002 and 2005, do not address the issues of land and resources. They are both short documents that provide for ceasefires and for the integration of MDJT fighters into the national army and civil service. The MDJT would transform into a political party and participate in civilian politics.

The failure to address any issues beyond demobilisation of rebel forces and the inclusion of their members in that national army and government is symptomatic of other peace agreements in Chad over the last 15 years, such as the 'Reconciliation Agreement' in 1999 with the MDD rebels.

Source: Uppsula Conflict Data Program

http://www.pcr.uu.se/gpdatabase/gpcountry.php?id=32&regionSelect=1-Northern _ Africa

Niger

Agreement Establishing Peace Between the Government of the Republic of Niger and the 'Organisation de la Résistance Armée (ORA) (Organisation of the Armed Resistance) (1995)

http://www.pcr.uu.se/gpdatabase/peace/nig19950415.pdf

Extent to which land/resources were an issue

The period 1990-1995 saw uprisings by Tuareg groups in both Niger and Mali, in protest against what they perceived to be a lack of attention by central government. In northern Niger (specifically in Aïr and Azawad), where the Tuareg ethnic group constitutes a clear majority of the population, armed Tuareg-dominated groups rose seeking greater decentralisation of political power in the whole country or autonomy for their home regions.

At the heart of the 1990 Tuareg uprising in Mali and Niger was the protection of Tuareg culture, and the nomadic way of life, which sustains that culture. Thousands of Tuaregs affected by drought were forced to abandon their nomadic lifestyle. Many young Tuareg fled north and joined guerrilla groups and the Libyan army, and many elderly fled south to beg in the larger cities. They began to return to Niger in 1990 from Libya and Algeria, and demanded greater autonomy, development projects that would ease the damage wrought by the famine, and an end to their exclusion from local political power. Some returning Tuareg had served in the Libyan army, and brought guns and rocket launchers home with them. They found themselves in trouble with the authorities and attempts to disarm them led to violence and arrests. The conflict soon escalated into a full rebellion with the Tuareg demanding regional autonomy and development projects for the region.

Clearly, the issue of land and resources was significant in this conflict, with the issue at stake being the level of control for regional groups over their own territory.

How was that issue dealt with?

On 15 April 1995 the Niger government signed a comprehensive peace agreement with the CRA, now renamed the ORA in Niamey, Niger.

The agreement instituted a ceasefire, and also reaffirmed the earlier ceasefire from 1994. The agreement further stipulated a restructuring of the armed forces of Niger, which entailed an integration of ORA fighters

into its ranks. There were also reforms in the security sector, with rebel integration into these forces and the creation of a special security task force for the northern areas of Niger (Aïr and Azawad).

The incompatibility was resolved through a decentralization plan, building upon the earlier Ouagadougou Accord (1994), but with more far-reaching reforms. The devolved powers to the municipal and regional entities were the right to maintain their own assemblies and executive, implementation, social, cultural and economic powers. Special emphasis was also placed on the economic, social and cultural development of the Tuareg areas, including the fair allocation of dividends from the country's mineral resources. In clause 22 the government commits to "take all necessary steps in order to continue and accelerate the efforts of investment in the pastoral zone", including the breeding of livestock and development of agriculture. A peace committee was established to ensure implementation of the agreement. Finally, the government proclaimed a general amnesty and a resettlement program for those displaced both internally and externally.

Throughout the rest of 1995, Niger was relatively peaceful. Yet little progress was made on implementing the peace accord. In 2003, however, the largely Tuareg composition of the Republican Guard showed the government was attempting to uphold the reintegration portion of the peace agreement with the Tuareg rebels. However, there still exists dissatisfaction in the government's implementation of the cease-fire amongst the Tuareg. They want more control over their resources within their territory. Many of the grievances that sparked the 1990 uprising have not yet been resolved. The Niger Tuareg still desire greater regional autonomy in addition to increased funds for development projects and increased economic opportunities. Cultural grievances, especially regarding language, are also still salient. Niger's Tuaregs continue to watch closely the development and economic activities of the government, especially regarding the Aïr Mountains' burgeoning tourist trade, and Arlit's recovering uranium industry.

Sources:

Minorities at Risk Project, Assessment for Tuareg in Niger, 31 December 2003, available at: http://www.unhcr.org/refworld/docid/469f3ab81e.html

Uppsala Conflict Data Program: http://www.pcr.uu.se/gpdatabase/gpcountry.php?id=118&regionSelect=1-Northern _ Africa#

Mali

Tamanrasset Accord (1991)

http://www.pcr.uu.se/gpdatabase/peace/mal19910106.pdf

National Pact (1992)

http://www.pcr.uu.se/gpdatabase/peace/Mal%2019920411fr.pdf

Extent to which land/resources were an issue

As in Niger, throughout the 1990s there was sporadic fighting between Touareg and Arab rebel groups on one side and the Malian government on the other, over the status of the Azawad region in northern Mali. With some seeking independence and others fighting for autonomy, the rebels have at times been very successful in fighting the government on their own home turf.

Azaouad is a name that traditionally designates a huge zone north of Timbuktu. The insurgency movements used it to designate the three northern regions, Gao, Kidal and Timbuktu, which cover some two-thirds of the national territory of Mali – though the region is called simply 'the North of Mali' in later peace agreements. After the army's reprisal attacks, they were soon joined by Arabs who organized their own Arabic Islamic

Front of Azaouad (FIAA). The rebels had the support of all ethnic groups in the north for at least the first year. In this period, the main divide was between the north and the central government. Northern solidarity transcended any local inter-ethnic tensions over resources or social differences.

As in Niger, the conflict in Mali is the product of a long period of social exclusion of the northern region dating from the colonial period. The north was particularly hard hit by the droughts of 1972-73 and 1983-85. Insufficient relief efforts, often perceived as deliberate neglect, led many to flee to neighbouring countries. Many northern migrant men became soldiers in Libya's 'Islamic Legion' and received sophisticated military training and experience fighting in Chad and in Lebanon. Some aspired to use this experience to address the problems of marginalization of northern Mali. This aspiration was compounded by the widespread feeling of hopelessness for their future among the north's younger generations.

How was that issue dealt with?

In January 1991 a peace agreement was signed between the government and the Azwad People's Movement (MPA), known as the Tamanrasset Accord. There were generous concessions from the government who agreed to move their troops out of all pasture land and densely populated regions in the north. Internal autonomy was to be granted to the Adrar region and additional state funds were to be allocated to the development of the region. However, opponents of the government were angry that they had conceded so much to the rebels and the failure to represent Songhoy communities at the negotiations led to fears that the agreement would install Tuareg dominance in the north. In March 1991, the regime was overthrown in a military coup. The incoming government did not consider the Tamanrasset Accord as legitimate and made little effort to implement it.

Violence in the north escalated again with the emergence of two new and more aggressive movements: the Popular Front for the Liberation of Azaouad (FPLA) and the Revolutionary Army for the Liberation of Azaouad (ARLA). In late 1991 a new negotiating strategy was pursued by the government which bought civil society more into the fold. A series of preparatory and negotiating meetings took place before the National Pact was signed in Bamako, Mali in April 1992. The agreement was based on four key points: peace and security in the north; national reconciliation; special initiatives to promote socio-economic development in the north; and according the north a special status within the framework of the unitary state of Mali.

After the signing, interim President Touré admitted the systematic neglect of the development of the north as the primary source of the conflict, which was an important step. However, effective implementation proved difficult. The weak government struggled to control the army and local units continued to fight their own war, while rebels in the north fragmented and pursued their own agendas. In addition, there were few resources to implement the substantive provisions in the agreement regarding socio-economic development. International donors showed little interest in Mali and the peace settlement. Of those that did make pledges to support the National Pact with investments, few fulfilled their commitments. Local communities needed to adapt the agreement to their situation but insecurity made it difficult for local civil society to act. Thus there was little in the way of a 'peace dividend' and it was difficult to make any substantial changes in living conditions.

There was a period of relative calm after 1995 when the rebel groups disbanded but the conflict erupted again in 2007 when a new rebel group emerged. Their capacity was seriously hindered when the government launched a major army offensive in January 2009.

Sources:

Uppsala Conflict Data Programme: http://www.pcr.uu.se/gpdatabase/gpcountry.php?id=103&value=

Conciliation Resources: http://www.c-r.org/our-work/accord/public-participation/malis-peace-process.php

Lessons to be learned

- The Liberia example (and to some extent Angola) shows that in a conflict where there are large numbers of IDPs and refugees, provisions not only have to be made for their safe return, but also for land issues to be resolved. In a conflict that has gone on for many years, like the one in Liberia, this will be a complicated process and will need a dedicated body to oversee it.

- Failure to address the land issue at the same time as the peace process can lead to a situation, as in both Angola and Mozambique, where communities continued to be exploited after the conflict as they were not protected by rigorous land laws. In Angola land remained in the hands of the elite, and in Mozambique the government sold off vast swathes of communal land to private enterprise before any new regulations were brought in.

- The Sierra Leone example illustrates the importance of allocating responsibility for a country's natural resources in a peace agreement, especially if they have played a significant role during the conflict. Giving complete control of resources to the rebel group, as was effectively the case in Sierra Leone, removes a large amount of authority from the government and threatens to de-stabilize the peace process.

- The peace agreement in Niger is, to a certain degree, a good example of one that addresses the fundamental issues at stake in the conflict. The government agreed not only to bring members of the rebel groups into the government and share in decision-making, but also made specific commitments on issues of agrarian development and equitable usage of natural resources. The problem in Niger was that the concessions made to the rebel groups were not followed up with successful implementation.

Endnotes

1   Action Point 13 DDPD Draft Implementation Schedule which links to paragraph 172 "Competition over pasture and water between herders and farmers is a serious problem in Darfur which shall be addressed in a comprehensive way…"

2   Borrini-Feyerabend et al (2007: xxx)

3   Cotula et al (2005: 1)

4   UN (2012)

5   Examples of the way these changes are reflected in the environmental sector include the transfer of the Irrigation department from the Ministry of Irrigation and Water Resources to the Ministry of Agriculture in December 2011 and the formation of the Ministry of Water Resources and Electricity in August 2012. Similarly at state level e.g. the South Darfur Ministry of Water Resources and Environment was established in May 2010 and disbanded in March 2012. Water was moved to the Ministry of Urban Planning and Public Utilities while the environmental mandate was included in the new Ministry of Youth, Sports, Environment and Tourism in April 2012.

6   See, for example, Ahmed, (2010), Abdul Jalil et al (2007), Morton (2011) Bromwich (2009)

7   Action Point 13 DDPD Draft Implementation Schedule which links to paragraph 172 "Competition over pasture and water between herders and farmers is a serious problem in Darfur which shall be addressed in a comprehensive way…"

8   Bromwich (2009)

9   As reported in Graham et al (2003)

10   See http://www.unhchr.ch/huridocda/huridoca.nsf/(Symbol)/E.CN.4.RES.2000.64.En?Opendocument on UN Resolution 2000/64

11   Jaspers F. Introduction to Water Law – Lecture notes 2007 UNESCO-IHE Delft

12   For a practical discussion of this, see P. Kerkhof (2000) 'Local Forest Management in the Sahel: Towards a new social contract',SOS Sahel.

13   For example, UNEP's focus is to promote informed decision-making to enhance global and regional environmental cooperation – see: http://www.unep.org/environmentalgovernance/UNEPsWork/tabid/347/Default.aspx

14   See http://www.unep.org/ecosystemmanagement/Introduction/tabid/293/language/en-US/Default.aspx (last viewed 21st October 2011)

15   This was part of the project "Sustainable Options for Livelihood Solutions and Environmental Security-SOLSES"

16   DRA are introducing CEAPs in Darfur. http://www.dra-sudan.org/programme.php The Practical Action Methodology is called Participatory Action Plan Development (PAPD). http://practicalaction.org/where-we-work-sudan

17   In Darfur, it is easy to see how the absence of this has been a driver of the conflict at the local level, for example the interests of the Northern Rizeygat, without their own *dar* (tribal land), were not well-protected which left them open to manipulation by different political agendas in the early years of the conflict (Young et al, 2009)

18   The World Bank has adopted a definition of civil society in accordance with a number of leading research centres in which they use 'the term civil society to refer to the wide array of non-governmental

and not-for-profit organisations that have a presence in public life, expressing the interests and values of their members or others, based on ethical, cultural, political, scientific, religious or philanthropic considerations. Civil Society Organisations (CSOs) therefore refer to a wide of array of organisations: community groups, non-governmental organisations (NGOs), labour unions, indigenous groups, charitable organisations, faith-based organisations, professional associations, and foundations'. This definition covers traditional leadership, known in Sudan as the Native Administration.

19   Much of this draws originally on Amartya Sen's seminal work on entitlements.

20   Jeremy Swift (personal communication) warns against focusing just on poor households in isolation from their community of origin. Where the community is the primary user, this includes both rich and poor households

21   See Borrini-Feyerabend et al (2007:18) for an interesting comparison between an agro-industrial market system and indigenous NRM systems.

22   For example, Lane (1998) describes how pastoral communal tenure in Africa ranges from true common property to individual private property within the communal system.

23   Natural resource accounting (NRA) may help in this respect, as a set of innovative tools that identify the contribution of natural resources to a country's economic growth, as quoted in Hesse and MacGregor, (2006).

24   Frustrated by the inability of official data to capture the contribution of pastoralism to the economy, partly because of its significant informal dimension, Hesse and Macgregor (2006) have developed a tool – the Total Economic Value (TEV) – to provide a more complete picture of the impact and value of pastoralism. The TEV attempts to measure both market and non-market values. It divides this up into direct values such as subsistence production for household and community consumption and trade in livestock and animal products, and indirect values which include environmental benefits such as ecological and rangeland services and maintaining the balance and stability of pastures.

25   See, for example, Netting (1981).

26   Principle 25 Rio Declaration

27   A strong link to Sudan exists as former Deputy Prime Minister and Minister of Foreign Affairs, Mansour Khalid, was the deputy chairman of the commission. (The commission was led by Gro Harlem Brundtland, former the Prime Minister of Norway)

28   Carrying capacity is a concept that struggles to do justice to the complexity of resource use in variable environments such as the Sahel – vegetation is dependent on rainfall which is highly variable seasonably, annually and geographically. Migration as a livelihood strategy reflects this variability.

29   The term physical sustainability is only used twice in the Brundtland report and indicates a limited perspective on sustainability in terms of ensuring physical resources are not depleted, rather than considering broader concepts of enhancing resource use through technological change or improved organisations (e.g. governance).

30   The 10,000 Wells for Darfur Initiative was based on the work undertaken by Boston University and the so-called "Ancient mega-lake" in North Darfur. Other high profile, assets based initiatives for peace in Darfur include the RTF remote sensing and an initiative to plant 100 M trees. The Darfur International Water Conference was an improvement on these initiatives in that issues around governance of water, particularly IWRM came higher up the agenda.

31   Adapted from http://www.unep.org/40thanniversary/

32   For example principle 7 of the Rio declaration "In view of the different global contribution to environmental degradation, states shall have common but differentiated responsibilities" provides the basis on which, in 1997 the Kyoto protocol places a higher burden on developed countries than

developing countries, committing them to reductions in greenhouse gas emissions against a 1990 baseline.

33   As the context changes so do negotiating positions: an ongoing evolution of environmental governance is therefore a realistic expectation. For example, the relative levels of development between nations which informs the key lists in the Annexes for respective responsibilities have changed. The categorization of these countries in the same way hasn't got the same rationale as when they were first drawn up. Some countries initially in favour have now withdrawn from the agreement.

34   Munang et al make the case that ecosystems-based approaches have multiple co-benefits for adaptation mitigation, protection of livelihoods and poverty alleviation. It is logical therefore that the management of the ecosystem should bring coordination amongst these relevant stakeholders.

35   Nine Sudanese environmental scientists were among the lead authors of the IPCC's work. One of them, Dr. Balgis Osman of the Higher Council for Environment and Natural Resources, was among the small group representing this large and diverse body at the award ceremony in Oslo.

36   See Nobel Price official Website http://www.nobelprize.org/nobel _ prizes/peace/laureates/2007/

37   The Sudan PCEA was made at the invitation of the Government of National Unity after the signing of the Comprehensive Peace Agreement to support the development process designed to consolidate the agreement. www.unep.org/sudan

38   Many of the specialists who made up the first staff of the HCENR had been active in promoting the environmental agenda in Sudan within these organisations, and the links are well maintained. The Rio Summit gave an important boost to grass roots activism for the environment increasing the space for the development of networks within Sudan's civil society.

39   UNCED was accompanied by a programme of capacity building coordinated by UNDP known as Capacity 21. In Sudan, Capacity 21 projects were implemented by HCENR with collaboration at local level with multiple stakeholders that saw the development of state environmental councils and plans in some parts of the country.

40   See Swiderska (2002). This list reflects challenges in numerous countries. For a discussion of challenges in environmental governance in Sudan see the expert review made by Dr Yagoub Abdalla and Dr Omer Egemi accompanying this report (UNEP 2012)

41   See Stakeholder Forum for Our Common Future: http://stakeholderforum.org/publications/reports/IEG-SFpaper.pdf

42   See Chapter 7 for more on pastoralism (see also the livelihoods component of the Sudan Integrated Environment Programme at www.unep.org/sudan)

43   see Box 5

44   Other ecosystems based approaches (in addition to drylands and IWRM) that are relevant to Sudan are mountain ecosystems management and integrated coastal zone management.

45   Tearfund 2007; UNICEF, PWC & WES Sector Partners (2009); UNEP, 2008).

46   See Annex 2

47   The Sphere Handbook *(Humanitarian Charter and Minimum Standards in Humanitarian Response)* is widely interpreted as defining a right to a minimum of 15l/p/d as the minimum acceptable supply for "beneficiaries" of humanitarian assistance. Whilst the Handbook indicates that 7.5-15 l/p/d is peoples' "total basic need", in the discourse of entitlement amongst WASH sector stakeholders, including IDPs and others, the figure of 15 l/p/d is the benchmark used.

48   see www.unep.org/sudan

49   See for example, IIED et al (2005) and Lane (1998), who quotes a Nigerian herdsman saying: 'land belongs to a vast family of which many are dead, few are living and countless members are still unborn'.

50   Centre on Housing Rights and Evictions (2005)

51   UN (2007)

52   Bruce 2007

53   See http://www.fao.org/nr/tenure/voluntary-guidelines/en/ (last viewed 24 October 2011)

54   This refers to the tribal leadership that dates back to the nineteenth century, and was termed 'native administration' by the colonial government of the Anglo-Egyptian Condominium in 1922.

55   See also Morton (2004)

56   For example, by becoming more accountable

57   See, for example, Tache and Irwin (2003); Hesse and MacGregor (2006)

58   Personal communication, 2011

59   See, for example, de Jode (2009), Nassef, Anderson, and Hesse (2009), Swift (2003)

60   For example, in northern Kenya local environmental management committees and water users' associations are regulating herders' movements to reduce grazing pressure on stressed resources and to reduce conflict over resources (Swift, 2003)

61   There are examples of pastoralist groups receiving 50 year rolling leases from government in Mongolia, for winter-spring pastures, and managing them effectively. In southern and Alpine Europe there are interesting examples of a historical combination of corporately managed mountain pastures and privately-owned or rented pastures and crop land that has allowed grassland to be used sustainably (Swift, 2003)

62   http://cmsdata.iucn.org/downloads/iucn _ redd _ indigenous _ peoples.pdf

63   Ways of programming to promote sustainable and equitable environmental governance are discussed in UNEP's forthcoming report 'Relationships and Resources'. This report also discusses development of indicators relating to governance and peacebuilding.

64   UN (2012)

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