


Changing land tenure regimes

TAADOUD INTEGRATED NATURAL RESOURCE MANAGEMENT LEARNING BRIEF 1 

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This is the first in a series of learning briefs under the Taadoud II: Transition to Development project funded by UK Aid¹ and implemented by Catholic Relief Services and the following partners: Catholic Agency for Overseas Development (CAFOD), Norwegian Church Aid (NCA), Oxfam America, United Methodist Committee on Relief (UMCOR), and World Vision. The learning brief series aims to promote awareness and understanding of natural resource use and management in the Darfur context to support the Taadoud II program, and wider programs and policies to effectively build resilient livelihoods.

This brief reviews farming and pastoralist livelihood systems, with the aim of clearly highlighting their evolving and overlapping tenure regimes. It aims also to highlight the increasing pressure on resources that has contributed to strained relationships and in some cases polarization and conflict. Unless this context is well understood, the problems and challenges cannot be effectively addressed. Finally, the brief considers steps needed to take full advantage of available opportunities for building the resilience of livelihood systems.

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Introduction

The majority of Darfur livelihoods depend on farming and pastoralist systems of production, either directly or indirectly. These two systems, or livelihood specializations,² have given rise to livelihood strategies predominantly based on either farming or pastoralism, or a combination of both. Traditional farming is rainfed, with some irrigation in the cool dry season in the seasonal riverbeds and valleys known as wadis. Pastoralism is an extensive grassland-based form of livestock production

that depends on livestock moving to access water and grazing resources in areas of high rainfall variability. Types and patterns of livestock mobility vary enormously. Agro-pastoralism is a production system that includes both cultivation and pastoralist livestock production. This brief focuses on the relationship and integration between pastoralism and farming systems and pays particular attention to pastoralism, because it is generally less well understood.

Pastoralism and farming production systems—historically adapted, integrated, and sustainable

Pastoralism and farming specializations are inherently adapted to the extreme climate variability and ecological diversity of the Darfur region. For example, in the past, cultivators cleared, tilled, and sowed a larger area, or more fields, than they would eventually harvest as a risk-spreading strategy. This practice helped ensure that at least some fields would get sufficient rainfall, even if others did not due to rainfall variability.³ Similarly, in polygamous households, different wives would be responsible for cultivating different plots located far from each other as a risk-spreading strategy. Increasing pressures on cultivable land have all but eliminated the practice of shifting cultivation, especially in more densely populated areas with more fertile soils. Shifting cultivation is still reportedly practiced in some northern areas where there is less pressure on land (Kulbus Locality, for example).

Figure 1 shows the historic livestock routes or corridors that traverse Darfur. Livestock mobility enables pastoralist herds to minimize or avoid time

spent in difficult conditions (overcrowded or muddy conditions, areas with livestock pests). For example, the *baggara* (cattle herders) and *abbala* (camel herders) move northwards in the rainy season, thus avoiding the wetter, muddy conditions in the south and the associated pests and allowing them to access places with more nutritious pastures and better conditions for breeding. As the dry season progresses, the camels and cattle return southwards, where they find permanent water sources and some dry grazing and fodder reserves. By taking advantage of the seasonal and geographic variations in ecology, herders keep their animals healthy and productive while avoiding problems. Furthermore, livestock mobility helps prevent overgrazing and maintains a healthy environment. This mobility ultimately enables pastoralism to be a viable livelihood.⁴

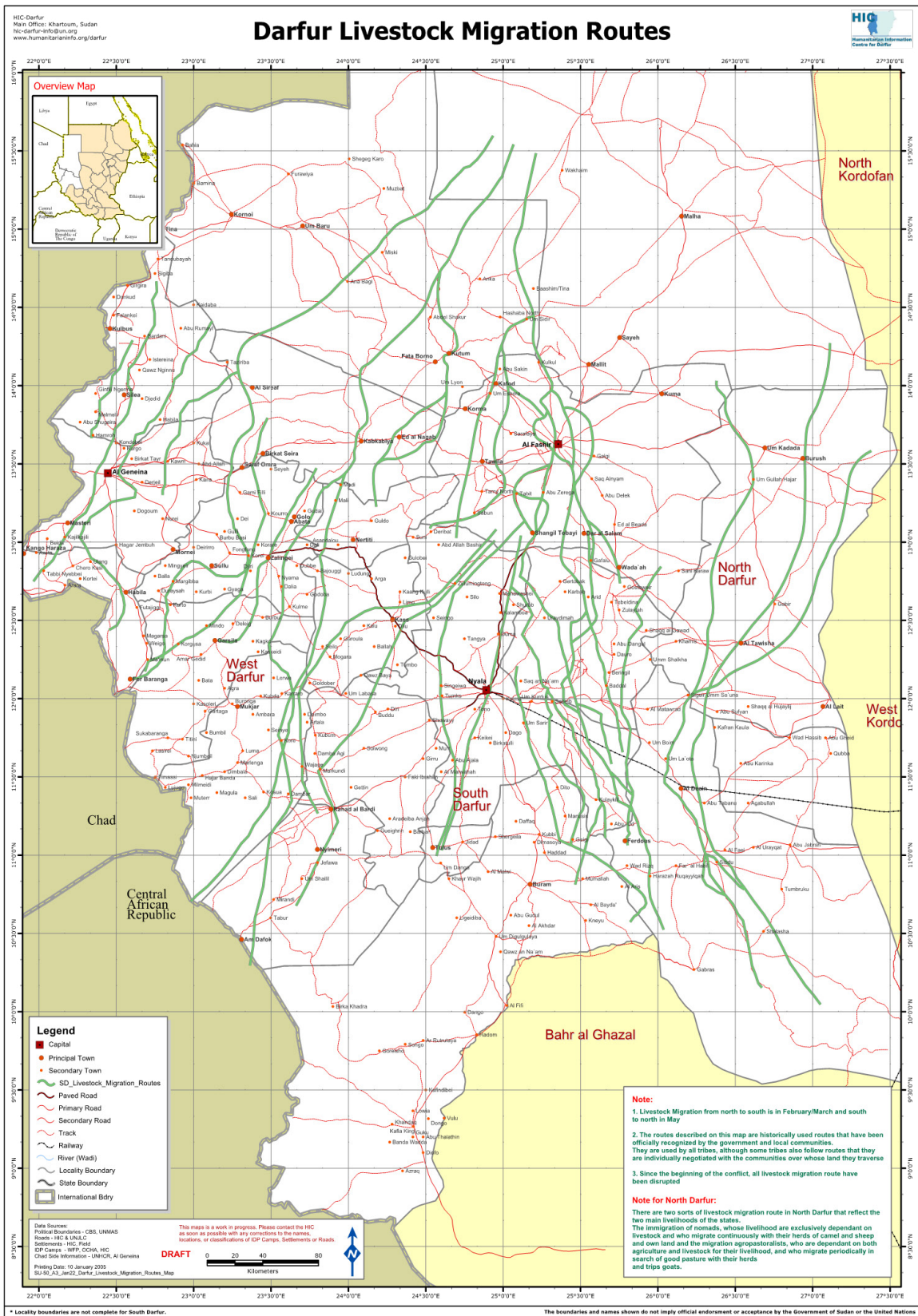
In Sudan in recent years, the government (through the Federal Ministry of Animal Resources) and others have begun to recognize the positive contribution of pastoralist livestock to the national

² A livelihood specialization is associated with in-depth indigenous knowledge and experience of a particular livelihood system, handed down through generations and with a long history. Of relevance to resilience are the specialist skills and expertise that allow producers to flexibly adapt to the climate and environmental variability typical of the region. See M. Bollig, 2016, Adaptive cycles in the savannah: Pastoral specialization and diversification in northern Kenya, *Journal of Eastern African Studies* 10(1): 21–44.

³ Fouad N. Ibrahim, 1982, The role of women peasants in the process of desertification in Western Sudan, *GeoJournal* 6(1): 25–30.

⁴ P. Varjakshapanicker et al., 2019, Sustainable livestock systems to improve human health, nutrition, and economic status, *Animal Frontiers* 9(4): 39–42.

Figure 1. Historically used Darfur livestock migration routes



(UN-Humanitarian Information Center, 2005)
 Note: The longest livestock corridors are in excess of 600 km from south to north.

economy and exports, as well as to local livelihoods, food security, and nutrition. There have also been wide-ranging efforts in Sudan and Darfur to address knowledge gaps on pastoralism, promote more intersectoral collaboration, and support local peacebuilding efforts between farmers and herders.⁵

Despite these efforts, there remains a significant knowledge gap about the scientific basis and rationale for pastoralism in Sudan and at the regional and global levels. As a result, pastoralism is not always well understood, and some prejudicial views remain. Without a solid understanding of pastoralism, poorly informed programming could inadvertently undermine pastoralist systems, promote inequities, damage relationships, and support further polarization. As with humanitarian programming, the principle of “do no harm” should be applied to resilience activities.

Farming systems and the common property rules governing access to cultivable land have been written about widely by Darfur scholars. However, relatively less attention has been given to the practice of pastoralism and how it is managed. The literature that does exist rarely looks beyond simple descriptions of seasonal movements.

Policy-makers and practitioners need to consider pastoralism and farming production systems in tandem, recognizing on the one hand their integration and on the other that their interests and needs differ. While the farming system tends to be localized (centered around individual farms), the activities of mobile pastoralists span a vast scale, with livestock corridors connecting geographically distant seasonal grazing areas.

Since the great Sahelian famines of the seventies and eighties, farming and pastoralist households have begun complementing their primary livelihood strategy, or specialization, with secondary sources of food and income. For example, many in pastoralist households, especially women, have started to farm despite lacking the skills and expertise.

Although it might seem obvious, efforts to build resilience in Darfur must continually learn from local experience of adaptation **in order to support the continuity and integration of farming and pastoralist livelihood specializations and the peaceful co-management of natural resources.** Unless actions are designed with the local context and adaptation in mind, they may undermine rather than strengthen local livelihoods.

Evolving tenure regimes and practices for accessing natural resources

Farming and pastoralist systems each have different approaches for accessing the natural resources they depend upon. The Darfuri land tenure system for farming is typical of a **common property regime**, while the pastoralist system is essentially based on an **open access regime**.⁶ Both regimes have their roots in the past—in local institutions within the

Native Administration⁷ (NA) of the relevant tribes. They co-exist alongside each other and to some extent overlap.⁸

Common property regimes are characterized by rule-based internal regulation of localized areas, usually with well-defined boundaries and obvious

⁵ Peacebuilding efforts include: the work of the Sudan Pastoralism Policy Training and Support Team; the work of United Nations Environment Programme (UNEP) in promoting dialogue and policy change under their Wadi el Ku program; and the work of Practical Action on demarcation of livestock routes.

⁶ This distinction between common property and open access rights is discussed fully in R. Behnke, 2018, Open access and the sovereign commons: A political ecology of pastoral land tenure, *Land Use Policy* 76:708-718.

⁷ The NA is a hierarchy of local chiefs with wide-ranging responsibilities related to management of tribal and local community affairs, allocating land for agriculture and local grazing under the *hakura* system, settling conflicts over land tenure, communications and networking between tribes, communications at local council and higher administrative levels, collecting fees or taxes, and mobilizing communities and local tribal courts known as *judiyya*.

⁸ For example, within the same area, a pastoralist might have a right of way, while a farmer might have a usufruct right, which is a temporary right to use land for cultivation.

ownership groups. Darfur's historical common property regime for farming and localized grazing is generally known as the *hakura* system, which is locally administered by the NA. The *hakura* system provides institutional mechanisms for redistributing land or allocating land to newcomers. Women have the right to use land through their husbands or their fathers, or other male relatives. They can also inherit land or be given it as dowry, but women cannot acquire new land for themselves—it must be handled through a male relative.⁹ In Darfur, access to forest resources, water, and other natural resources is frequently linked with access to cultivable land under the *hakura* system. Local chiefs responsible for land under the *hakura* system also regulate the grazing activities in farming areas of different local tribes and seasonal users. Regulations include, for example, the enforcement of boundaries demarcating grazing and farming areas in order to protect crops and manage local grazing resources.

In contrast, **open access regimes** are a feature of most pastoral land tenure systems. Open access rights are usually based on a history of longstanding networks and relationships, and on a process of continuous negotiations with other users. In the Darfur region, each major tribe has its own NA, and those NA typically associated with the *baggara* or *abbala*, have specific responsibilities related to the more extensive long-distance pastoralist mobility. The NA regulates the seasonal movements of pastoralist herds in terms of livestock routes, timing of movements, access to seasonal pastures, the intermingling of tribes in the seasonal grazing areas, and management of dry season water points. For example, four distinct *abbala* tribes share access to the Jizzu grazing area in the north of North Darfur, including the Arab Northern Rizeigat and Zayadia, and the non-Arab Zaghawa and Meidob. In this remote area, there is a coordinated inter-tribal governance system, with locally agreed leaders and networks. In the Bahr area of East Darfur, the NA manages the dry season grazing reserves used by the *baggara*, by controlling the timing of herd returns to these areas. They also play a key role in averting

conflicts between farmers and herders during the seasonal long-distance migrations.

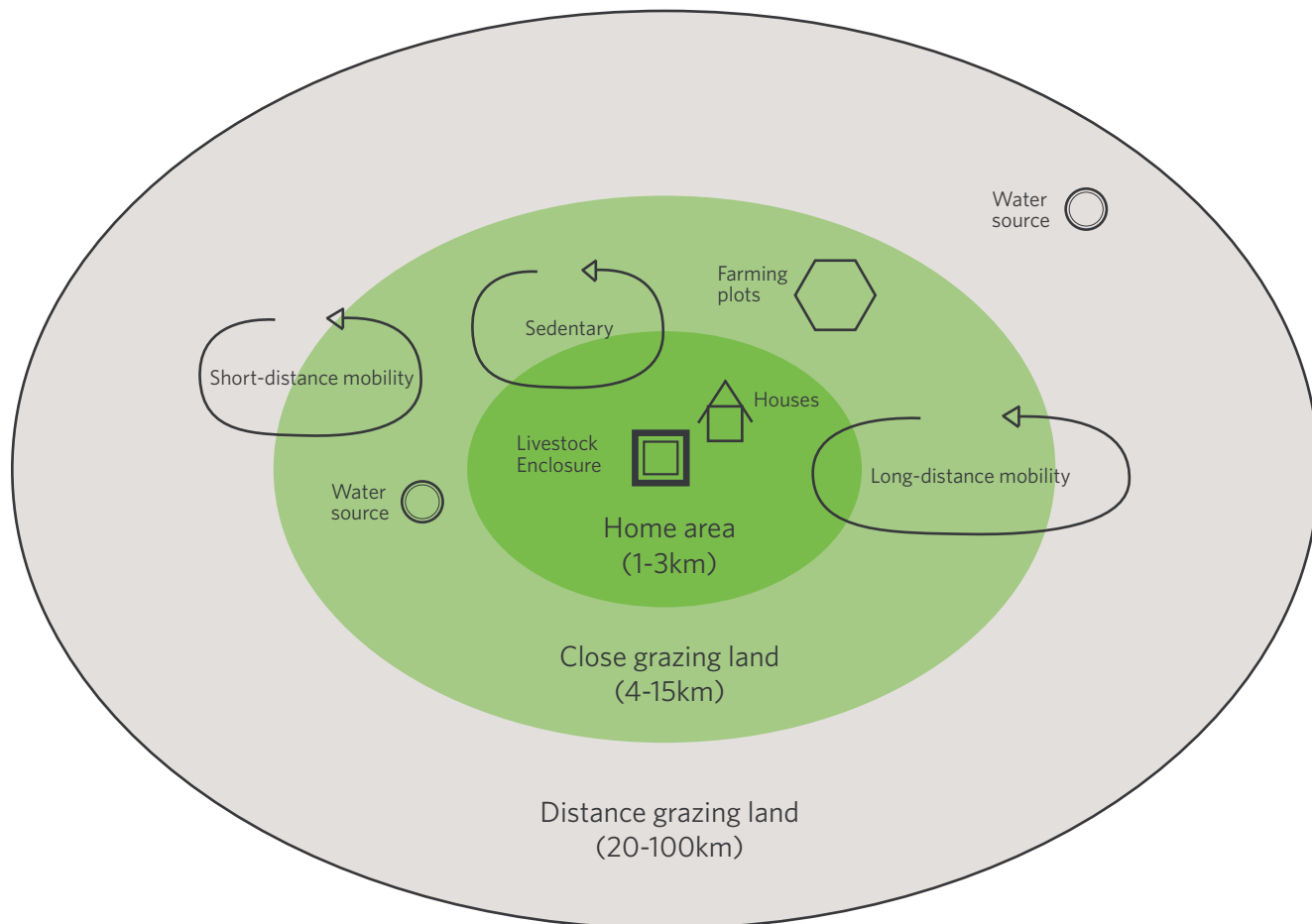
In Darfur, open access regimes have co-existed in an integrated manner with the common property rules of the *hakura*. This integration between farming and pastoralism under the NA produced wide-ranging social, economic, and environmental benefits for farmers and pastoralists as a result of their cooperation. Examples include the exchange of farm produce, such as milk and milk products, for locally available produce, and pastoralist livestock grazing on crop residues while fertilizing fields and helping to transport the farmers' harvest from the fields to the homesteads. Livestock mobility also means that herds were kept far from the farming areas during the cultivation season, thereby minimizing risk of damage to young crops. Both farmers and pastoralists widely recognize these mutual benefits of their past integration.

The two production systems and tenure regimes have undergone significant changes in recent decades. The *hakura* system now exists within a wider context that includes new ways of accessing land. For example, now people can access land through inheritance, private sales, private rental, and sharecropping arrangements. These new land tenure arrangements are more permanent than the past flexible usufructuary rights. Today we see farms with fixed boundaries that pass from one generation to the next, which contrasts with the shifting cultivation widely practiced in the past. However, in many areas, temporary land rights known as *akil-gom* ("eat and go") are still administered under the local NA.

The loss of land experienced by the former displaced and returnees and the demographic changes linked with this loss (urbanization, rural-urban migration, and seasonal returns) has also shifted the balance of land ownership away from these groups; i.e., their access to land is diminished. In addition, the process of land registration is currently underway, and while this process may enhance secure access for some producers, it may undermine access for others; for

⁹ Musa Adam Abdul-Jalil, 2006, The dynamics of customary land tenure and natural resource management in Darfur. Emergency assistance to vulnerable households and initial support to land tenure matters in Darfur, Project OSRO/SUD/507/CAN, Food and Agriculture Organization of the United Nations (FAO), Khartoum.

Figure 2. Schematic of the three grazing zones used by livestock keepers: sedentary, short-distance mobility, and long-distance mobility.



example, for women who previously had temporary access to wadi land to farm during the cool dry season.

Significant changes have taken place in pastoralist systems also, especially in the patterns of livestock mobility. Changes in patterns of livestock mobility are in part a result of the expansion of farming and changing land tenure arrangements, which have restricted mobility and are making open access increasingly difficult to negotiate. This restricted mobility is shown in a recent study¹⁰ that describes the implications of changing patterns of livestock movement on the social, economic, and environmental sustainability of both farming and

pastoralism. Long-distance migrations (north-south) have contracted, reducing the extent of northern and sometimes southern migrations, while the number of herds practicing “short-distance” mobility (within a range of 20 km from the household) has increased (see Figure 2). There is also a growing sedentary system in which livestock are confined to an area within a 5 km radius of the home area all year. The sedentary system can only accommodate small herds without risk of overgrazing and is typically practiced by settled communities, for whom small stock are one of their livelihood activities. However, pastoralists also switch to this sedentary system when facing periods of conflict or threat of looting, which causes further pressure on the resources

¹⁰ H. Sulieman and H. Young, 2019, Transforming pastoralist mobility in West Darfur: Understanding continuity and change, Feinstein International Center, Friedman School of Nutrition Science and Policy at Tufts University, Boston.

near the home area. The study concludes that livestock mobility is the single most important factor in keeping the environment healthy, optimizing conditions for livestock, and reducing tensions and conflict between pastoralists and farmers.¹¹

Pastoralists complain frequently about the loss of rangelands and blocked livestock corridors as farming areas have expanded. Their access to seasonal pastures is frequently hindered as they travel north or south through the densely cultivated farming areas that leave little room for herds to pass through.

Local farmers have also suffered as a result of insecurity linked with conflict and increasing sales of the more productive farmland to private investors.¹² Women farmers, who once had access to wadi land for cultivation during the cool dry season, increasingly can only cultivate as hired agricultural workers, which makes their income less secure, increases their work burden, and reduces access to nutritious foods for the family.

A wide range of factors is causing the changes in land-use practices and approaches to accessing natural resources. In general, farmers and pastoralists must negotiate a much more complex set of overlapping and sometimes conflicting tenure systems, making it more difficult to access the resources they need. Overall, access is becoming less flexible because of rapidly evolving land tenure arrangements that tend to be more rigid than the open access and common property regimes were. There are few if any reports or studies that consider both the customary land tenure system—the *hakura*—and the wider open access rights enjoyed by pastoralists. This brief review emphasizes that it is vital to consider both forms of tenure and the relationship between them, as well as other growing land tenure mechanisms such as rental, private sales, etc. Only if this complexity is grasped will the challenges people face in accessing natural resources be understood.

Polarized relationships, increasing competition and conflict

Over the past three decades, multiple factors have undermined the former integration and increased the competition and conflict over natural resources between the farming and pastoralist systems.

At a local level, over the past decade, farmers have increasingly reported problems with pastoralist livestock damaging their crops, particularly mature crops as animals move southwards just before the harvest. At the same time, herders frequently complain of blocked livestock corridors and loss of rangelands. This increase in conflict has prompted

a wide range of local-level peacebuilding activities throughout Darfur to promote peace between farming and pastoralist communities.

Some of these efforts have resulted in specific actions to minimize and address conflict drivers or grievances. For example, several organizations have invested in demarcating the livestock corridors. Taadoud II is providing ongoing support and training to the *Ajaweed*¹³ and various Taadoud-supported structures,¹⁴ which include farmers, pastoralists, and nomads. Recently in Habila, the *Ajaweed* working

¹¹ Sulieman and Young, Transforming pastoralist mobility.

¹² For example, the BRACED 2016 qualitative studies in Hashaba, South Darfur report major changes in tenure arrangements. In the five previous years, small private investors from the neighboring city of Nyala bought the most productive land, which is then rented out, or day labor is hired to farm it. This change marks a shift from people farming their own land to the same individuals working as hired day labor on the farms of others or entering into partnership agreements in order to be able to cultivate. One focus group estimated that about 60% of the households in Hashaba do not own agricultural land and practice rainy season farming through partnership agreements or by renting (H. Young, M. A. Ismail, and A. E. Mohamed, 2018, Regional report for Abu Rojo, Hashaba and Um Sayala, South Darfur. Building Resilience in Chad and Sudan (BRICS), Concern Worldwide and Feinstein International Center, Friedman School of Nutrition Science and Policy at Tufts University).

¹³ *Ajaweed* are respected community members, e.g., leaders, elders, or others, who are directly engaged in local conflict resolution.

¹⁴ For example, *Catchment Committees/Community Action Groups (CAGs) and Locality Natural Resource Management Steering Committees.*



with Taadoud played a significant role in reducing a violent conflict over natural resources between nomadic herdsman and farming communities.

There are also examples of local community-driven peacebuilding initiatives. For example, local committees have independently sprouted up to promote “peaceful co-existence” or “farm protection.” These new committees are combining traditional practices with modern ones. They are using local customary systems for making decisions on land use and assessing penalties and are depending on local government systems for their enforcement. This institutional mixing and evolution are crucially important as they reflect the reinvention of tradition, the importance of legitimate authority, and the role of people in shaping such arrangements.¹⁵

There were reportedly marked improvements in some farmer-herder relationships during the 2018 harvest season, which followed an excellent rainy season that resulted in abundant pastures and good harvest. Despite this notable improvement, there are undoubtedly underlying grievances and vulnerabilities that could resurface when there is more pressure on natural resources. This pressure can be expected given the extreme rainfall variability and strong likelihood of a poor rainy season in the near future.

Relationships remain particularly strained between certain nomadic pastoralists practicing long-distance migration and farming communities. Over time, these particular relationships have become polarized due to shifts in local power relations, longstanding

grievances, significant demographic shifts, and changes in access to resources. While the challenges facing the displaced are evident, the challenges facing pastoralism are largely unrecognized. The highly seasonal nature of long-distance migration, the proud nomadic lifestyle, and the distinctive nomadic communities (which are typically referred to as *damra* and look very different from villages) are not always well understood or appreciated by others. Worse still, the specialization is sometimes seen as a problem in itself as it has been associated with deeply engrained prejudicial views linked with nomadic identity. In order to challenge these unhelpful views, it is worthwhile to separate what ordinary women and men do for a living—their livelihood specialization—from the wider identities and dynamics linked with the Darfur conflict, for example. Taadoud and other resilience-building initiatives should focus on what people do as their specialization and their access to natural resources through open access, common property, or other tenure regimes, and not pigeonhole producers according to pre-existing prejudicial viewpoints.

Peacebuilding activities have prioritized conflict resolution and have not always fully understood or addressed the wide-ranging grievances that are actually driving the conflicts. While community-level committees tend to address problems in their own back yard, the issues facing pastoralists, and especially nomadic pastoralists, require solutions extending beyond the point of conflict—along their migratory routes, or in seasonal grazing areas. For example, following a poor rainy season, pastoralists often move south earlier than usual because water becomes scarce in the north earlier than usual. This early migration south, before the harvest is done, means herds pass through farming areas before the harvest is in, thereby increasing the potential for crop damage by migrating livestock. Planning water resources in the northern areas may serve to protect interests within the catchment and the wider region. Similarly, pastoralists may keep their herds longer in the farming zone if there is a high risk of conflict in their seasonal grazing areas. A deeper and wider analysis of conflict drivers is needed and should include the wider livelihoods domain occupied by

¹⁵ See F. Cleaver, 2012, *Development through bricolage: Rethinking institutions for natural resource management*, Abingdon: Routledge.

pastoralists. Factors such as limited pasture or water elsewhere is likely to have implications for the timing

of their herds' arrival in the farming zones (pre- or post-harvest) and duration of stay.

Shifting from humanitarian response to resilience building—new opportunities to address old problems

The shift from humanitarian action to resilience-building programs requires a profound transformation in terms of ways of working and the process of engaging with people and their institutions. This shift in approach brings significant new opportunities for agencies to strengthen and broaden the impact of their peacebuilding and resilience-building activities.

During the Darfur crisis, humanitarian programs carefully targeted the displaced in camps. Consequently, international non-governmental organizations (INGOs) had limited engagement with nomads, which inadvertently contributed to a sense of exclusion by INGOs among nomadic pastoralists that persists today. In contrast, the Taadoud approach to resilience building focuses on catchment areas and all users of natural resources within a given catchment, including secondary or seasonal users. However, remnants of the former humanitarian approach that sometimes remain can be unhelpful. For example, for targeting purposes, it is appropriate for humanitarian programs to categorize “beneficiaries” as “sedentary farmers,” “returnees,” “displaced,” or “nomads.” However, using these categories to frame resilience-building or peacebuilding programs can be divisive and counterproductive to the goal of bringing people together.

Resilience programs would benefit from categorizing participants based on what people do for a living (not limited to the one activity that characterizes their specialization), with a view to supporting livelihoods and shared interests at the system level and not only at the household level. Flexible management of natural resources that supports

increasing sustainable diversification for all—pastoralists learning to cultivate, farmers rearing pastoralist livestock, and women being able to farm in the dry season—will also help promote integration between livelihood sub-systems. These processes of diversification have been underway in Darfur since the eighties¹⁶ and will be reviewed in the second learning brief.

Another major difference between humanitarian and resilience ways of working is the shift from the relatively siloed sectoral approach of humanitarian programs to a holistic view of natural resource use. For example, humanitarian water, sanitation, and hygiene (WASH) programs tend to focus on one resource at a time, for one specific purpose—water for domestic use. In a resilience-building context, we must recognize that water is only one natural resource and it is used for many things. Under Taadoud, water is managed in the context of integrated water resources management (IWRM) to provide more reliable water resources for all users for livelihoods as well as for domestic use, and to improve water-based ecosystems and water quality. Taadoud is engaging communities in soil and water conservation activities that are important for the sustainability of water for agriculture and livestock use as well as for vegetation rehabilitation. For example, a traditional humanitarian agricultural project might provide water pumps without consideration for other users, whereas Taadoud is focused on the wider area, multiple users, and balancing the distribution of pumps with overall consideration for the water table and available grazing areas so as not to draw large numbers of livestock and thereby encourage overgrazing.

¹⁶ H. Young and M. Ismail, 2019, Complexity, continuity and change: Livelihood resilience in the Darfur region of Sudan, *Disasters* 43(S3): S318–S344.

The siloing of natural resources continues to be a challenge, partly as a result of the way in which some agencies and ministry departments are organized along sectoral or disciplinary lines. This organizational structure hinders interactions between sectors, for example water and agriculture or livestock and rangeland. A more holistic view

of natural resource use reflects the reality that producers are facing on the ground. Increasingly, agencies and donors are recognizing the need for integrated approaches rather than siloed ones; Taadoud has a key role to play in encouraging such an approach.

Conclusions

In summary, farming and pastoralist systems of production are the bedrock of the vast majority of Darfur livelihoods and the wider economy of the region and the country. Together, pastoralism and farming systems represent an integrated approach for managing natural resources, which underpins the sustainability and adaptation of the systems to the variable climate and ecology of the Darfur region. Hence, pastoralism and farming sub-systems need to be considered in tandem, with both forming crucial parts of a regionwide production system. Their flexible and integrated approaches to managing natural resources have their roots in historic tenure regimes, including the common property regime

of the *hakura* system and the open access rights of pastoralism. However, these tenure systems are no longer the full extent of tenure in the region. Both systems are facing wide-ranging challenges, with a loss of flexibility, more fixed land tenure regimes, restrictions on mobility, and a shift from shared or mutual benefits to competition and conflict. While the continuity and integration between pastoralism and farming of former times still exist, they need to be supported and sustained. Understanding the challenges facing both pastoralism and farming is vital for promoting their positive integration and equitable access, and for the peaceful co-management of natural resources.

Recommendations

This short paper has been reviewed and discussed by the Taadoud partners and the Taadoud Research Advisory Group and presented to a national and international audience in Khartoum with expert discussants. This process has helped to categorize the recommendations into four broad areas:

1. Support continuity and integration;
2. Build capacities—a participatory and evidence-based approach;
3. Review what works;
4. Promote wider system strengthening.

Under each of these categories we then refined the recommendations according to the target audience, including: Taadoud and other program interventions; legal frameworks and policies; local governance and institutions; and research and learning.

Recommendations to support continuity and integration

Taadoud and other program interventions: Support the continuity and integration of Darfur pastoralist and farming systems in order to sustain livelihoods and promote peaceful co-management of natural resources. Supporting the integration between primary and secondary users of natural resources has its own particular challenges, as the roots of a local problem may lie at a wider landscape level that goes beyond local issues. For example, pastoralist livestock damaging crops just before harvest might be the result of earlier-than-usual southwards migration of animals, which is driven by the lack of water further north. Those pastoralists practicing long-distance migration are usually only seasonally present in the farming zone. However, as users of

the open access resources, they should be involved in efforts to support continuity of livelihoods and integration between users.

Taadoud should proactively engage all livelihood groups, including those practicing short- and long-distance livestock migration as well as farming and agro-pastoral groups, in order to promote exchange and learning between them. Extra efforts are needed to promote engagement with nomadic pastoralists, recognizing that they may see themselves as having been excluded from NGO programming in the past. One idea is to identify Taadoud catchment areas that are situated on the same migratory routes (but which are in different states and so are served by different Taadoud partners). The aim would be to explore and better understand the interests and challenges of different groups, from their points of view, and how these can be addressed and integrated into catchment area and locality committee plans.

Legal frameworks and policies: Policies should be balanced and equitable, taking account of the seasonal interests and needs of primary and seasonal users of natural resources, women and men, and young and old, in the context of evolving land tenure regimes.

Local governance and institutions: The NA plays a vital and unique role in supporting continuity and integration at a local and landscape level. The NA helps to promote cooperation and preservation of the land and natural resources on that land so that people can continue to use them as part of their livelihood practices. Many positive local practices have a long history of being upheld by the NA. As new forms of land tenure evolve, the NA plays a crucial role in protecting, supporting, and where necessary adapting open access and common property regimes, given their fundamental importance for both the continuity of and integration between pastoralism and farming.

Research and learning: The Darfur universities are well placed to conduct research to increase

knowledge and create a more contemporary and holistic view of natural resource management. Other issues that warrant further analysis include the extent and dynamics of farmer-herder competition and conflict, including conflict drivers within the catchment areas and in the wider pastoralist domain. Prejudices and biases against certain groups and lifestyles are embedded in the media and wider society. It is incumbent on research and learning institutions to challenge negative stereotypes and misinformed views.

Recommendations to build capacities—a participatory and evidence-based approach

Taadoud and other program interventions:

Strengthen understanding of livelihood adaptation to environmental variability in the Darfur region, based on a participatory and evidence-based approach.

Capacity building should be:

- Demand driven—enabling stakeholders to drive the capacity-building agenda through a process of consultation and commitment to participation;
- Evidence based—from the existing body of knowledge, new research, in-depth local knowledge, including specialist local skills linked to livelihoods.
- Locally led—creating space and support for local actors to actively and effectively participate in multi-stakeholder fora.

There are many ways agencies can support capacity building. A priority need is to support the improved understanding of pastoralism through the delivery of a training program adapted from the original Pastoralism Policy Training Course for Sudan. The course requires updating. This training should be in Arabic and led by the national pastoralism support team together with technical resource persons trained in adult learning techniques¹⁷. Taadoud should target key members of the different Darfur State's administration to participate in the new Taadoud Pastoralism Policy Training (currently being developed).

¹⁷ The national Pastoralism Support Team (PST) is a team of expert facilitators who deliver pastoralism policy trainings that are adapted to the learning objectives of a particular audience, based on locally available and wide-ranging international evidence. The facilitators apply appropriate adult learning techniques that promote participation and foster informed debate.

Legal frameworks and policies: These need to show an informed understanding of pastoralist systems, their flexible adaptive management, and their social, economic, and environmental sustainability. Local governance and institutions: The NA can contribute to as well as benefit from capacity-building efforts, bringing specialist knowledge and experience of integrated natural resource management (INRM) in the Darfur context. The participation of key members of the NA in the development and delivery of capacity-building approaches will help to ensure their outreach and effectiveness.

Research and learning: Technical staff from universities and research institutions bring a combination of technical expertise and contextual knowledge, both of which are needed for informing capacity-building approaches. Their leadership of capacity-building approaches is vital and at the same time should be complemented by a review of their particular capacity-development needs in areas where they lack experience.

Recommendations to review what works

Taadoud and other program interventions: Taadoud and other actors should document and share lessons from community-driven examples of environmental cooperation and peaceful co-management of open access resources to illustrate how these systems can work successfully in practice. Two examples are the *abbala* in the Jizzu of North Darfur and the local “farm protection” committees. From a project point of view, nomadic pastoralists have spoken highly of the work of Practical Action and their engagement under the UNEP Wadi el Ku project in North Darfur. Organizations would benefit from learning more about what made this project successful, in order to replicate that success.

Local governance and institutions: Locally, the NA plays a key role in relation to demarcating routes, managing access to water, and scheduling who uses what. The NA needs to be active participants in any planning, policy change, programming, evaluation, and learning and uptake.

Research and learning: Challenges remain, and we need to better understand why encroachment

of croplands is still taking place despite previous wide-ranging efforts to demarcate animal routes and address farmer-herder conflict. A multi-sectoral (rangeland, livestock, water, agriculture) study of the impact and sustainability of demarcation efforts from the perspective of all producer groups (pastoralists practicing short- and long distance-migration, agro-pastoralists, and farmers) is urgently needed. This review should also help us understand why pastoralists are, in some cases, dissatisfied with the earlier efforts. The continued problems might be an issue with existing laws and policies or enforcement, or both.

Recommendations to promote wider system strengthening

Taadoud and other program interventions: Taadoud is contributing to improving relationships and increased cooperation in INRM by promoting local platforms for exchange and learning, and for review and advocacy on issues facing different livelihood systems and how they can be addressed. Taadoud sets the example of an integrated catchment-based management system, and these lessons could be shared more widely with particular target audiences to promote system strengthening.

Legal frameworks and policies: Lessons from Taadoud INRM need to be shared, discussed, and agreed nationally, then documented and provided to federal and state government for inclusion in forthcoming policies. Agencies could foster a more holistic integrated approach among government departments by promoting interactions and exchanges between sectors or departments that in the past have dealt with individual natural resources in isolation from each other. Such an effort would apply Taadoud’s programming approach in the government context.

Local governance and institutions: Taadoud partners should support local-level workshops targeting the NA in each of their program areas, reviewing and further adapting lessons learned from its programming.

Research and learning: Taadoud’s partnership with Darfur universities provides an example of a new way of working that aims to strengthen

local institutions and promote integration with stakeholders. As universities are now seeking more

active international engagement, the Taadoud experience provides a useful model.

Discussant remarks

This brief was presented at the Taadoud II consortium public learning event held on October 31, 2019 attended by approximately 100 Sudanese and donor government officials, international and national NGOs, and academics. Following the presentation, two expert discussants shared their comments and reflections. These are outlined below.

Hussein Suleiman, University of Gadarif

1. Any plans and activities designed to achieve long-term sustainable INRM should take into account the dynamics of livelihood strategies.
2. Many of the traditional livestock activities that were previously managed as a means of subsistence have become more market-oriented in recent years. Examples of this phenomenon are many, such as the preference for cultivating cash crops by farmers and the preference for rearing sheep instead of cattle and camels among pastoralists. Such trends are expected to have implications for accessing natural resources.
3. There is a new trend of increasing diversification of livelihood activities within and between farming, agro-pastoralism, and pastoralism. In many areas, there is a shift from pure pastoralism to agro-pastoralism due to self-settling by many pastoral groups, which happened mainly because of conflicts and climate shocks. Moreover, there is a shift from long- to short-distance mobility.
4. The prolonged conflict in Darfur caused huge demographic changes, and it is not only affecting access and utilization of resources but is also changing the power relations with the returnees and displaced population in home areas. This new situation is expected to challenge the traditional institutions and their functionality.
5. The transition from humanitarian response to resilience building should consider the need for flexible and adaptive approaches.

Musa Adam Abdul-Jalil, University of Khartoum

1. The historical relationship between farming and pastoral systems in Darfur has mostly been one of interdependence, with outbreaks of conflict as exceptions rather than the norm. The two systems might better be portrayed as polar complementaries and not as polar opposites, or better still as two variations on a theme.
2. Looking at the long-term evolution of the land tenure system in Darfur, one can safely assume that the “open access” and “common property” regimes are actually different faces of the same coin. Native administrators whose historical task has been the management of land and natural resources successfully mediated the two regimes for a long time. They actually represent a living archive of INRM activity in the region, and any project in this arena should benefit from such a resource.
3. A legitimate question to be asked about the current land tenure regimes is to what extent they can be sustainable in the near future given the current developments. In view of the increased engagement with the market system that promises more privatization of natural resources, one wonders how long the collective nature of INRM is going to hold.
4. Engagement between pastoralists and agro-pastoralist producers has a long history, with traditions and protocols that ought to be understood and incorporated into today’s interventions. The movement of animals between different grazing zones was regulated according to such protocols. The demarcation of migration routes as practiced by some actors today portrays it as “livestock highway” with rigid cement poles, sometimes painted with traffic-light colors. This portrayal does not help in understanding the dynamic interplay between agro-pastoralist and pastoralist systems and the flexibility therein.

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As this brief goes to press, Sudan and the wider world is facing the COVID-19 pandemic, recognized globally for its impact on both lives and livelihoods. In Sudan, the response to COVID-19 has huge implications for access to and shared use of natural resources. It is imperative that program and policy responses do not “silo” different livelihoods and instead treat them as part of an integrated system of natural resource access and use, with rights of both primary and seasonal users being upheld and respected.