Musa Adam Abdul-Jalil: Nomad-sedentary relations and the question of land rights in Darfur: From complementarity to conflict. in: Richard Rottenburg (Hg.): Nomadic-sedentary relations and failing state institutions in Darfur and Kordofan (Sudan). Halle 2008 (Orientwissenschaftliche Hefte 26; Mitteilungen des SFB "Differenz und Integration" 12) 1–24. © Musa Adam Abdul-Jalil 2008

Nomad-sedentary relations and the question of land rights in Darfur: From complementarity to conflict

Musa Adam Abdul-Jalil

Introduction

The relationship between pastoral nomads and sedentary farmers in the savannah dry-lands of Africa has often been depicted as one of 'polarized opposition' between typical 'herders' and typical 'farmers'. However, in reality one seldom finds communities representing such ideal types. The interaction between pastoralists and farmers is so complex that it cannot be adequately understood by using a simple herder/farmer dichotomy. Depending on varying situations such interaction can involve cooperation and complementarities or competition and conflict.

Writing about nomad-sedentary relations in the Middle East Fredrik Barth has suggested three alternative models to analyze such relations which are worth mentioning here:

1. Depiction of nomadic society in its relation to its total environment. Sedentary people are considered part of that environment, and the nomads' relations to them are revealed as part of an ecologic, economic, or political analysis.

2. Taking a more explicitly symbiotic view that seeks to analyze the interconnections of nomads and sedentary as prerequisites for the persistence of each in their present form.

3. Focusing on the total activities of a region (not on two kinds of society). If we think instead of types of activity, we can then disaggregate the sub-systems which are systems of production, or 'productive regimes'.

Clearly favoring the third model, he then states: "What I am proposing, then, so as to bring nomadic and sedentary populations into a common analytic framework and understand the forms and variations in the relationships between them is (a) to look at them as participants in a common regional economy, (b) to understand the character of the productive regimes that each is associated with, and (c) to analyze the class relationship between them" (Barth 1973: 11–17).

Following Barth, Babiker (2001) has correctly argued that the focus on the herder/farmer distinction would render the comprehension of complexity and the dynamics of resource competition rather inadequate. He gives two important reasons for objecting to the dichotomous approach: The first one relates to ignor-

ing the importance of scale and multiplicity of levels of analysis where claims of access and control of resources are usually contested, negotiated and settled at different levels (e.g. household, village, region, and nation). The second reason regards the importance of the processes of social differentiation in understanding the dynamics of resource competition and conflict. I would agree that this is a more sensible approach to understanding the dynamics of resource based conflicts in African dry-land savannah of which Sudan's central regions are the best example.

The issue of nomad-sedentary relations has recently moved to the center stage in Darfur in the aftermath of the civil war there. Typical media representation succeeded in packaging the crises as resulting from conflict between pastoral nomads and sedentary farmers. Furthermore, the first are identified as Arabs and the second as Africans. Hence the Darfur civil war is being portrayed by many as an opposition between two ethnic groups pursuing different ways of life.

In this paper I shall try to demonstrate that the two ways of life depicted for Arabs and Africans in Darfur are not inherently polarized. Although certain conditions have lead to such recent manifestations of a negative nature, careful consideration of past experiences show that the two ways of life (that of nomadic pastoralism and sedentary cultivation) tend to interact favorably at other times. The paper depends on secondary material (both published and unpublished) as well as on personal long-term association with Darfur as my homeland. More recently, I had a chance to visit Darfur in the capacity of a land tenure adviser with the Darfur Joint Assessment Mission which is managed by UNDP and aimed at facilitating the implementation of the Darfur Peace Agreement (DPA) signed in Abuja, Nigeria in May 2006. Although the data collected for the mission is not included in this review I have certainly benefited from the gained insight.

The savannah occupies the middle part of the Sudan from west to east. It is bound by the semi-desert sandy stretches in the north and by the swampy high grass and woodland in the south. Between these there are variations of savannah vegetation with different soil configurations. The northern and southern boundaries of the dry-land savannah are not fixed but shifts according to prevalent environmental conditions. Desert encroachment (or desertification) has become an observed fact. Experts believe that desertification is caused by two interacting factors: drought and excessive land use – be it cultivation, grazing or forest cropping (Ibrahim 1984).

There are two major economic activities in the savannah both of which depend on land as a crucial resource (a) rain-fed cultivation (sorghum, millet, sesame, groundnuts) and (b) livestock breading (camels, cattle, sheep, and goats). Between them there are other activities like craft and trading. Although the main logic behind the two types of activities is the maximization of returns for resources users they have been represented by many as distinct/dichotomous activities. Consequently the population living in the savannah is also classified into herders and cultivators and their ways of life as nomad and sedentary respectively. However, when the real world of the savannah population is observed more closely, various configurations are found that point to less dichotomous patterns and more fluidity. As such, being a nomad or a sedentary refers only to the overwhelming economic practice that a given individual or group normally engages in.

Thus from a livelihood point of view both camel and cattle owning groups are considered nomadic pastoralists; as exemplified by the Baggara of South Kordofan and South Darfur (called as such because of their cattle rearing activities). On the other hand, groups depending mostly on agricultural activities are considered sedentary cultivators as exemplified by the Nuba in South Kordofan and the Fur living in Jebel Marra and its surroundings in Darfur. While such a classification might be supported by direct observation, nevertheless, it simplifies or conceals many dynamic processes that are going on to the extent that our understanding of the interaction between the two types of activities is misguided.

According to Barth's point of view stated above, it pays more to see the two activities not as dichotomous but as an open continuum of interaction and management of resources that takes into consideration not only the natural elements of the environment but also the surrounding socio-economic and political factors. In the words of one researcher: "Sedentary and nomadic people in the Sudan have been interacting since time immemorial. Their interaction has been characterized by ups and downs, depending on the prevalent circumstances that vary according to differences in modes of livelihood, culture and ecological conditions of the environment that supports their subsistence base" (Assal 2006: 6).

Another researcher (Haaland 1969) has found that nomad-sedentary interactions may sometimes lead to crucial changes in activities and life style. He noticed that some successful sedentary farmers have turned into pastoral nomads (Fur in western Darfur) and in other instances nomads who lost all of their animals during the 1970s drought have taken to cultivation and become settled (e.g. Zaghawa resettled in southern Darfur). In Gedaref region in eastern Sudan where mechanized farming was introduced about half a century ago many wealthy nomads have become 'farmers'; reversing the Darfur example. In order to fully appreciate the complexity of nomad-sedentary relations in Darfur, the ecological context of the region must be reviewed first.

Ecological endowment and livelihood strategies in Darfur

Darfur region occupies the westernmost part of Sudan and shares international boundaries with Chad, Central African Republic and Libya. It is characterized by gently undulating to nearly level uplands and plateaus between 600 to 900 m above sea level. However, the topography of the region is interspersed with various hills and mountains. Jebel Marra (approx. 3000 m) constitutes a volcanic mountain range of about 115 km long and 45 km wide dominating the midwestern part of the region, while Jebel Meidob constitutes a distinct volcanic mountain in the northeast.

The climate is characterized by long hot and dry summers and short mild and dry winters and a rainy season of three to four months (June–October). The rainfall varies between almost zero in the northern parts of the region, to 800 mm in the high rainfall woodland savannah in the southern parts of Darfur. Hence, the region includes a number of climatic zones ranging from desert in the north to rich savannah in the south. Furthermore, rainfall is not only patchy, erratic and variable, but meteorological data shows an alarming trend towards dry conditions. For example, El Geneina town had a total rainfall of 528 mm in 1980, which dropped to 107 mm in 1984 indicating a leap towards desert conditions. The risk of receiving inadequate rainfall, mostly leading to crop failure, is high amounting to one in three years in the central parts of Darfur and two in three years in the northern parts of Darfur. Only in Jebel Marra area and in the savannah zones is the risk of both rainfall failure and rainfall variability rather low leading to stable crop production.

The drainage lines in Darfur region are numerous, all evolving from Jebel Marra plateau. The drainage system is either to the southeast to Bahr El Arab, to the south into Central Africa Republic and/or to the west into Chad. Most wadis¹ in North Darfur originate from the eastern side of Jebel Marra and drain towards the Nile basin. On the other hand Wadi Hawar which originates from the highlands on the Chadian border runs towards the Nile, but due to sand accumulation and aridity, the wadi hardly flows beyond North Darfur.

Ecologically, Darfur reflects diverse features ranging from a typical desert environment in the north to rich savannah marshland in the south. Environmental experts have not agreed on a unified classification of ecological zones in Darfur. However, for the purpose of appreciating the type of natural resources and associated land utilization patterns, Darfur could be divided into seven ecological zones as I have stated elsewhere (Abdul-Jalil 2004). The ecological zones represent the physical attributes of the area and natural resources that created conditions for particular land use patterns and livelihood options. They can be identified as follows:

1) The desert zone covers the northern part of the region and makes about 28 per cent of its area. It consists mainly of sandy stretches and dunes with very little vegetative cover, extreme heat and very low precipitation (0-100 mm). The only

¹ Wadi is an Arabic word for a seasonal watercourse. Arabic transliteration follows the system adopted by the editors of "Sudan Notes and Records".

worthwhile economic activity performed in this zone is the raising of camels and sheep. Even though, animals can be kept here only for a part of the year.

2) The semi-desert zone lies south of the desert and is constituted of sandy stretches that are covered by low grass and bushes of small trees. It receives an average annual rainfall of 100–225 mm. Although the main economic activity in this zone is livestock breeding, there is limited cultivation of millet in years of good rain, especially along wadis (watercourses) where the soil is mixed with clay – hence more fertile. Some of the large wadis provide chances for practicing irrigated horticulture through digging surface wells of about 5–10 meters deep (like in Kebkabiya, Kutum and Melleit). Other wadis are amenable for the use of water spreading techniques to cultivate crops (like in Wadi Al-Kuo). Horticultural crops include fruits and vegetables in addition to tobacco which is solely produced in this part of Sudan.

3) The Jebel Marra plateau occupies the central parts of Darfur with a volcanic mountain on its top that reaches about 10,000 feet above sea level. Most of the watercourses that provide Darfur with water originate from this zone. Because of the better soil quality and the plentiful and more stable rainfall (up to 1000 mm per annum in some places), this zone witnesses some of the most intensive agricultural activity in Darfur. In addition to stable crops of wheat, durra, and millet, various types of vegetables and fruits are also grown. Citrus fruits (mainly oranges and grapefruits) and potatoes grown in Jebel Marra are marketed in large urban centers as far away as Khartoum.

4) The central goz extends east of Jebel Marra into the neighboring region of Kordofan. It consists mainly of sandy plains covered with bushes and short grass reflecting the rainfall that it enjoys (225–400 mm per annum). This marginally allows cultivation of millet, which is best suited for growing on sandy soil. Economic activities in the sandy soils include traditional crop production (millet), Gum Arabic and village-based livestock raising of sheep, goats and cattle. Since the 1970s this area witnessed increased activity of oil seed cultivation (peanuts, sesame and water melon) as cash crops. Conditions are also suitable for sheep rearing in this zone.

5) The western alluvial plains with clay soil are the most fertile and suitable part of Darfur for diverse economic activities. Falling to the west of Jebel Marra, it receives adequate rainfall (400–600 mm per annum) that supports stable agriculture. Furthermore, large wadis originating from Jebel Marra (Baare, Azoom, Kaja, and Aribu) pass through different parts of this zone, enabling its population to practice perennial horticulture in addition to rain-fed cultivation. Because of the extensive agriculture that leaves enough fodder and the presence of stretches of green trees along wadi beds, this zone is visited by camel nomads from the north as well as cattle nomads from the south during the dry season. 6) The southern plains consist of stretches of sand intermingling with clay soil, otherwise termed 'Baggara repeating pattern' by ecologists. Rainfall ranges between 600–650 mm. In the rainy season the area is used for grazing by the Baggara tribes and crop production by sedentary population. Expansion of oil seeds cultivation has been going on for the last two decades. Nevertheless, this zone is part of the famous cattle rearing zone in the Sudan which is termed the 'Baggara belt' in recognition of its rich savannah pastures preferred by Arab cattle nomads roaming central Sudan.

7) Lastly, the mixed soils, *ragaba* (scattered pools) and high rainfall are characterized by cracking clays and ironstone soils. It is occupied by cattle nomadic groups in the dry season. Rainfall is plentiful (600–750 mm per annum) here and soil is suitable for large-scale agricultural activities. But due to lack of roads and other infrastructural inputs, only limited mechanized commercial agriculture has been introduced.

The ecological conditions described above have the potential of being easily modified and disturbed by a combination of rainfall variability and human interventions. The magnitude and extent of the disturbance depends on the type of land use and level of activities. The level of land utilization differs from rational to exploitative. However, despite local adaptations based on traditional knowledge and experiences, environmental degradation has become so intense that it became a triggering factor of conflict between various land users (notably pastoralists and farmers).

Land rights under the customary tenure system

The history of Darfur before the ascendancy of the Keira dynasty to the leadership of the sultanate in mid 16th century is largely unknown. Therefore, any information on land tenure for that period is scanty unreliable. Nonetheless, it is reasonable to assume that the developmental stage under which communities in Darfur were existing was one in which the tribe represented the overarching organizing principle. Membership in tribal groups and their lower components was essential for the formation of local communities. As it is generally known about similar communities in Africa, groups living in a given territory own the surrounding land communally in the pre-estate period. That would have meant the allocation of land to each extended family (not to individuals) according to its need within the territory that belongs to a lineage or clan. Families had usufruct rights on their farm-land as long as it was continuously utilized. When a family stops cultivating the land for any reason, it reverts back to the community and can be utilized by another family. Normally a community leader, who would probably also be the village headman, was responsible for land allocation or recognition of new occupancy.

Uncultivated land was simultaneously utilized by all members of the community for various purposes, ranging from wood-cutting to collection of forest products and hunting. Non-members i.e. visitors had to be accepted first in the community then given access to natural resources as a result. As security was an important concern for these communities, they only accepted visitors that they trusted. In the pre-state period there were vast stretches of unoccupied and hence unclaimed land which was available for newcomers. Historians of Darfur have not recorded any large-scale skirmishes between the then indigenous groups and the arriving Arab nomads a few centuries ago. There is enough evidence to show that the infiltration of these groups was gradual and peaceful. The fact that the majority of Arab tribes have their own recognized *dar*s (homelands) is a further proof to this point.

According to Shuqayr (quoted in O'Fahey 1980) Sultan Musa Ibn Suleiman who was the second ruler in the Keira dynasty (1680–1700) is said to have introduced a new system of granting land titles i.e. estates, called *hakura* (plural *hawakir*), even though the earliest found documents dated to the time of Sultan Ahmad Bakur the third sultan in the Keira dynasty. The granting of *hawakir* by sultans was initially associated with the encouragement of Muslim religious teachers to settle in Darfur and preach Islam. Merchants from the Nile Valley were also given estates in recognition for their valuable service to the state, which was mainly related to promotion of trade with Egypt and Riverian Sudan. Despite its connection with the process of the Islamization of Darfur, in later stages the *hakura* system developed into a powerful tool for the consolidation of state power.

The *hawakir* (estates) granted by Keira sultans fall into two types; an administrative *hakura* which gives limited rights of taxation over people occupying a certain territory, and a more exclusive *hakura* of privilege that gives the title holder all rights for taxes and religious dues. The first type was usually granted to tribal leaders and later came to be known as *dars* (literally meaning homeland). Effectively, administrative *hakura* confirmed communal ownership of land for a given group of people who usually make up a tribe or a division of it under a recognized leader. Originally the group had obtained such rights as a result of earlier occupation from the pre-state period. The sultan in this case merely recognized that fact and reconfirmed the position of the group's leader. On the other hand, the *hakura* of privilege (which was relatively smaller) rewarded individuals for services rendered to the state and had limited administrative implications. Both types of estates were managed through stewards acting on behalf of the titleholder (O'Fahey 1980: 51).

Sultans were able to ensure the loyalty and support of tribal leaders by issuing seal bearing charters written in Arabic confirming the authority of a chief over his

people and his right to manage the land that falls within the territory of the tribe. Usually such charters also describe the boundaries of the estate being granted. Army leaders and state officials were also granted land titles from the return of which they had to meet their expenses, since no regular salary system was in existence. Title holders were able to extract *ushur* (customary dues) equal to one tenth of farm yield from those who cultivated their land through a steward/manager called *sid-al-fas* (master of the axe). The latter would manage the state by allocating pieces of land for settlement or cultivation. Customary dues collected from land were shared by various officials in the administrative hierarchy, which makes a *hakura* less than a freehold.

It seems that Keira sultans succeeded to a great extent to make land tenure a part of the administrative setup of the sultanate. Since not all lands were granted as estates, it meant that the older system of communal tenure continued to exist side by side with the *hakura* system in various places around Darfur. As far as tribal groups are concerned, the land they occupied effectively became synonymous with an administrative *hakura*. In other words, what used to be communal land has now come to be considered as an administrative *hakura* or *dar*. Tribal homelands were named after the tribe e.g. *Dar Zaghawa* (land of the Zaghawa people) and *Dar Rizeigat* (land of the Rizeigat people). This development introduced new function to the land other than its economic potential; it became a symbol of group identity. Since the region is open to hosting immigrants from neighboring areas it follows that newcomers have to access land through transactions with indigenous land-holding tribal groups only. That is exactly what nomadic camel pastoralist groups have been doing for the last two hundred years or so.

Because nomadic land use rights are group-based and less individual-specific, they show close resemblance to the early form of (pre-*hakura*) communal rights. An individual nomad does not need to manage his own particular piece of grazing land because he does not stay in one place anyway. Moreover, the nomadic mode of life requires that pastoralists be given passing rights through special corridors in the tribal lands of sedentary groups. This was done through special arrangements between the traditional leaders of each party and according to which the customary rights of each side were observed. Such relations even developed into a form of interdependence between the two communities. Many nomads used to keep animals for their sedentary friends. Their friends on the other hand would reciprocate through gifts and giving access to the remains of agricultural produce which makes good fodder. It is worth mentioning here that while cattle herding Arab groups occupying most of southern Darfur estate (Rizeigat, Habbaniya, Ta'aisha, Beni Halba, and Fellata) traditionally have their own dars, the Arab camel nomads of North Darfur (collectively referred to as northern Rizeigat) do not have *dars* of their own. The Ziyadiya who live around Koma and Melleit are an exceptional case.

When Darfur was finally annexed to Sudan in 1916 the colonial authorities introduced little changes to the then existing system of land administration. Under their policy of indirect rule they confirmed tribal leaders as part of a native administration system and custodians of land belonging to their tribes. Tribal homelands (*dars*) came to be recognized by the government on the basis of expediency as they helped in controlling the rural population more efficiently. From the perspective of association with a homeland Darfurian tribes may be classified into land-holding and non-land-holding groups. The first category includes all the sedentary groups plus cattle-herding tribes of southern Darfur. The second one includes the Arab camel nomads of the north plus newcomers from neighboring Chad who were driven by drought and/or political instability or both to seek permanent residence in Darfur. The relationship of this type of access to land on the current civil war cannot be overemphasized.

State intervention and the contestation of land rights

The intervention of the state has transformed some of the land relations paving the way for contestation where previously fixed and stable relations existed. The government of Jaafar Numeiri enacted a law in 1970 called the Unregistered Land Act (ULA) according to which all unofficially registered land in all parts of the Sudan are to be considered government owned land, hence accessible to all citizens. To make it even worse, it followed that with the abolition of upper level native administration in 1971 and the enactment of the Peoples' Local Courts' Act in 1973. The cumulative effect of these acts drastically reduced the capacity of traditional land managers even when they were later reinstalled after the overthrow of the Numeiri regime in 1985.

Although the government did not have any means to either map or directly manage all unregistered land in the Sudan, the new law effectively paved the way for later developments to take place regarding land tenure in most parts of the country. As a matter of fact the ULA was primarily aimed at providing the legal base for the expropriation of more land to expand the activities of the Mechanized Farming Corporation (MFC) which was established by a special act in 1968. Mechanized farming has been introduced in some parts of the Sudan by British colonial authorities in order to feed soldiers during First World War (mainly in eastern Sudan). In many parts of the Sudan the expansion of MFC has lead to the alienation of indigenous populations from their land which has been expropriated by the state for the interest of rich merchant elites from the large urban centers in Riverian Sudan. The Nuba Mountains Mechanized Farming Corporation is a typical example of that development in land relations which became the backdrop for resource based conflict ultimately culminating in civil war in the mid 1980s (see Suliman 1999).

In Darfur the effect of the ULA has been rather different. The remoteness of the region made it less attractive for the mechanized farming entrepreneurs who basically practice soil mining and are therefore not ready to make any sacrifices for the future. However, dynamic land relations in Darfur have been dictated by the movement from the arid drought stricken northern part to the southern and western parts of the region. Although the customary land tenure system is based on the recognition of the fundamental rights of a major tribe in a given territory, nevertheless, tribal authorities are expected - as they usually do - to accommodate newcomers. As a general rule the hakura system allows for settlement of newcomers whether they are individuals or groups provided that they adhere to stipulated customary regulations in these matters; the most important of which is to remain subject to the administrative authorities of the host tribe. Grazing, hunting, water, and forest use are all considered by these regulations as universal rights to be enjoyed by everyone in the community including temporary visitors. Nomadic people did not have any problem with the system in the past because the migratory system they practiced gave them the advantage of exploiting a variety of resources in different ecological zones to all of which they had access.

A newcomer usually acquires the right to stay in an area and join the community first then he can ask to be allotted farmland. If a person is not accepted in a community a farmland cannot be given to him. The village headman first informs his senior native administrator of the arrival of newcomers irrespective whether they are temporary visitors or have the intention to settle permanently. When the newcomer is considered harmless to the security of the *dar* the village headman is allowed to allocate land accordingly. This clearly emphasizes the primacy of community membership over private *hakura* rights, which is only logical since communal land rights have historically preceded the advent of the *hakura* system itself.

It is noticeable that although they have been allotted land in the new territories according to customary tenure, migrants from northern Darfur who settled in other places (notably the goz and the southern plains zones) were ready to claim – after a while – rights for establishing their own native administration structures in their new homes since the land they occupy belongs to the government. Such claims would have been unthinkable in the past when newcomers were expected to remain as 'guests' of the host tribe and abide by its customary rules regarding land tenure and native administration. The many conflicts that the resettled Zaghawa in the goz were part of in the areas south of El-Fasher in the mid 1980s attest to the negative effects of the 1970 act (see Abdul-Jalil 1988). However, despite all the developments that added further complexity to the system, customary land tenure continued to function because it was flexible enough, up to a point, to adapt to new situations.

One may add here that the 1970 ULA affects mainly uncultivated land since the government can only redistribute unclaimed land. As a partial recognition for the time-tested customary acquisition of land, the government issued a Civil Transac-

tions Act (CTA) in 1984, which states that local communities have usufruct rights over land they occupy although legal ownership still remains with the government. The net result is that different land tenure systems coexist in the same area. Nonetheless, many factors have affected land use patterns in Darfur for the last three decades, which in turn affected customary land tenure itself and put its adaptive capabilities to a serious test. One of the most important challenges for the system of land management in Darfur in the last two decades has been the failure to regulate the relationship between nomadic pastoralists and sedentary cultivators in a manner that inhibits the frequent occurrence of violent conflicts. Pastoralists have also begun to contest the rights of the original *dar* owners. This is not to say that the pastoralists are alone responsible of the change in nature of the relationship with their neighbors and hosts. In a way this reflects new developments taking place in the practices of the cultivators as well. It is an interactive situation which I shall try to explain shortly.

Two distinct but complementary ways of life

Nomadic pastoralism and sedentary cultivation have often been perceived as cultural polar opposites not only by researchers but often by the actors themselves who openly admire their way of life while expressing feelings of discontent regarding 'the Other'. Village dwellers in Darfur express their own stereotypical views of 'herders' while the latter also have their own perceptions about 'cultivators'. Sedentary people consider village life as more comfortable, more sociable and it is associated with good food, cleanliness and religious worthiness. At the same time, they attach opposite values to nomadic life. By the same token, nomadic people praise their lives as more comfortable, more healthy, and involving more freedom. They don't hesitate to despise village life for its association with laborious agricultural tasks, bad health and less freedom.

Such views should be understood as expressions of ideological preference for certain cultural values and its associated life style. In no way does it correctly reflect the realities of everyday life that are less polarized. Ideological base perceptions about opposed life styles develop into communal group reference of 'We' and 'They' and subsequently become the basis for ethnic classification of livelihood patterns. Certain ethnic groups are considered cultivators while others are classified as pastoralists. The former category includes the Fur, Berti, Masalit, Tunjur and Dajo and the latter includes camel nomads of the north (northern Rizeigat) as well as various Baggara cattle nomads of South Darfur (mainly Rizeigat, Habbaniya, Ta'aisha, Beni Halba, and Fellata).

Each of the above mentioned life styles is supported by a set of cultural codes dealing with how to conduct oneself or perform certain activities according to

established routines. Such things are important for socializing the new generation into the appropriate cultural ways of the group. For example, a young nomad should know how to handle animals and use weapons that are important for guarding against possible threats to his animal wealth. On the other hand, a young Fur boy is expected to learn about agricultural practices at an early age (usually from five) and join a Quranic school when he reaches about ten years of age. Young girls, women, and elderly men on both sides have all expected roles and ways of conduct that represent the standards according to which their behavior is judged in their communities.

If normative values are generated by collective consciousness of the group, economic activities are dictated by more practical considerations for the individual interests of actors. For this reason it is difficult to find many villagers or nomads who fulfill the expected stereotypical pattern of economic activity appropriate to his group status. In fact most people in Darfur carry out mixed economic activities. Animals are not only kept by nomads. Sedentary people do keep all sorts of animals (camels, cattle, sheep, goats, horses, and donkeys). In this regard, three types of pastoralism can be distinguished:

1) Nomadic pastoralism, where people are always on the move with their animals, wandering throughout the year fetching water and pastures. Herding and watering are the major activities. They usually inhabit drier areas and raise camel as the main animal and live in tents in temporary locations and camps. The tents are made of cloths, plastic material or straw. Groups of extended families of the same kin usually move together to secure themselves against raiding. An example of such a group is the northern Rizeigat of Northern Darfur State.

2) *Transhumance*, where people stay in villages during the rainy season and engage in small-scale subsistence cultivation and maintain their herds around the area. During the dry season, they migrate to seek water and pasture following definite and well-recognized routes. Cattle and sheep are usually herded far away from the villages by members of the family or by paid laborers who usually receive payments in kind, e.g. a small animal every year. The Baggara tribes of South Darfur (as well as the Hawazma and the Messeiriya of South Kordofan) constitute a typical example.

3) *Agro-pastoralism*, where people are permanently settled and engaged in agriculture as the major economic activity but are also involved in limited activities of livestock breeding. Animals are maintained around their villages and movements outside the settlement domain are very limited. The Tunjur and Berti tribes of North Darfur State provide an example of such practice.

The relationship between the three types of economic activities in the past was generally characterized by complementarity. Gunnar Haaland (1969, 1972, and 1977) has documented extensively the patterns of activities and relationships between various economic sectors in Darfur and their intersection with ethnic

group identity. Depending mainly on economic analysis he argued that a given life style is not maintained because of ideological preference but rather as a result of value management of alternative strategies made possible by ecological conditions. Relationships between groups also follow the same logic of interaction and cultural preference is mainly used as ideological justification for otherwise pure rational actions. Thus, to explain how the pastoral system evolves in relation to the surrounding environment Haaland argues: "This context is constituted by constraints imposed by the natural habitat, by available technology, and by the relationships between economic units. In the actions and reactions of such units to the natural environment and to each other, systematic interdependencies emerge. The nature of these interdependencies is significantly structured by cultural values and social commitments" (1977: 179).

When Haaland looked at the life of the Fur and their Baggara neighbors he found that they do not only depict distinctive livelihood patterns, each of which is supported by a clear rationale of value management, but also they complement each other in some respects. Referring to this relationship he observed: "Fur-Baggara contact is regulated by shared codification of the reciprocal statuses that were appropriate for members of the two groups respectively. Both the Fur and the Baggara are Muslims and may thus interact on ritual occasions. A Baggara may camp in the Fur area in the dry season, but is then subject to the jurisdiction of the Fur local chief (*sheikh* or *omda*). In the market place they provide complementary goods: the Baggara supply milk and livestock, and the Fur supply agricultural products of which millet is of major importance to the Baggara. The herding contract is another basis for Fur-Baggara transactions. Persons in Fur villages may own cattle, but ecological conditions make it risky to keep them in the villages in the Fur area in the rainy season. Cattle-owning Fur farmers may avoid this problem by handing their cows over to Baggara nomads. The Baggara keeps the cows in his own herd and drives them to his *dar* in the rainy season. He gets the milk from the cows while the owner gets the calves. The Baggara is not responsible if predatory animals or disease kill the cows" (Haaland 1972: 59).

The above lengthy quotation shows the complementary nature of relations between typical pastoral nomads and sedentary cultivators in Darfur up to early 1970s especially in the Jebel Marra area and the western plains which represent the home of the Fur people. Since then conditions have steadily changed and in the course the nature of that relationship has transformed from complementarity to conflict. The same nomads that the sedentary used to invite to camp on their farms so that the soil benefits from animal manure are now barred from passing by the village. On their part, nomads trek through with their animals devastating crops and gardens causing great economic damages for farmers and if resisted they don't hesitate to use the semi-automatic firearms they are carrying and kill whoever dares to defend himself against them.

The root causes of conflict: within and without

From the mid 1980s Darfur witnessed a gradual increase of violent interaction between various groups. Some of these conflicts took place between nomads and nomads and others between sedentaries but the most vicious has been that involving the largest sedentary group – the Fur – against the largest nomadic group – the Arabs. This has put an end to a pattern of complementary interaction and peaceful coexistence that characterized the relationship between the two sides for decades. Access to land and natural resources has been directly associated with the majority of violent confrontations between various ethnic groups in Darfur so far. The following table gives a rough indication of the issues and groups involved in violent confrontations with each other from 1932 to 2000, just before the outbreak of the current war (in 2003). The table indicates very clearly that camel herders of North Darfur (Northern Rizeigat, Zaghawa and Ziyadiya) are the most involved in violent conflicts.

No.	Tribal groups involved	Year	Major cause of conflict
1	Kababish, Kawahla, Berti and Meidob	1932	Grazing and water rights
2	Kababish, Meidob and Ziyadiya	1957	Grazing and water rights
3	Rizeigat and Maalia	1968	Local politics of administration
4	Rizeigat and Dinka	1975	Grazing and water rights
5	Beni Halba and Mahariya	1976	Grazing and water rights
6	N Rizeigat (<i>abbala</i>) and Dajo	1976	Grazing and water rights
7	N Rizeigat (<i>abbala</i>) and Bargo	1978	Grazing and water rights
8	N Rizeigat and Gimir	1978	Grazing and water rights
9	N Rizeigat and Fur	1980	Grazing and water rights
10	N Rizeigat and Bargo	1980	Grazing and water rights
11	Ta'aisha and Salamat	1980	Local politics of administration
12	Kababish, Berti and Ziyadiya	1981	Grazing and water rights
13	Rizeigat and Dinka	1981	Grazing and water rights
14	N Rizeigat and Beni Halba	1982	Grazing and water rights

Major conflicts reported in Darfur, 1932-2000

15	Kababish, Kawahla, Berti and Meidob	1982	Grazing and water rights
16	Rizeigat and Messeiriya	1983	Grazing and water rights
17	Kababish, Berti and Meidob	1984	Grazing and water rights
18	Rizeigat and Messeiriya	1984	Grazing and water rights
19	Gimir and Fellata (Fulani)	1987	Administrative boundaries
20	Kababish, Kawahla, Berti and Meidob	1987	Grazing and water rights
21	Fur and Zaghawa	1989	Armed robberies
22	Arab and Fur	1989	Grazing rights
23	Zaghawa and Gimir	1990	Administrative boundaries
24	Zaghawa and Gimir	1990	Administrative boundaries
25	Ta'aisha and Gimir	1990	Land rights
26	Bargo and Rizeigat	1990	Grazing and water rights
27	Zaghawa and Maalia	1991	Land rights
28	Zaghawa and Marareit	1991	Grazing and water rights
29	Zaghawa and Beni Hussein	1991	Grazing and water rights
30	Zaghawa v. Mima and Birgid	1991	Grazing and water rights
31	Zaghawa and Birgid	1991	Grazing and water rights
32	Zaghawa and Birgid	1991	Grazing and water rights
33	Fur and Tarjam	1991	Land rights
34	Zaghawa and Arab	1994	Grazing and water rights
35	Zaghawa (Sudan) v. Zaghawa (Chad)	1994	Tribal politics
36	Masalit and Arabs	1996	Grazing, administration
37	Zaghawa and Rizeigat	1997	Local politics
38	Kababish Arabs and Meidob	1997	Grazing and water rights
39	Masalit and Arabs	1996	Grazing, administration
40	Zaghawa and Gimir	1999	Grazing, administration
41	Fur and Arabs	2000	Grazing, politics, armed robberies

Although it is possible to enumerate so many factors that variably influenced conflict regarding land rights in Darfur, it is more fruitful in the present context to concentrate on the most crucial ones. It is important to notice that not all factors are of equal value regarding their promotion of conflict. Moreover some factors are of a structural nature pertaining to class relations within the country at large other factors are more directly related to the events leading up to violent confrontations between groups. For this reason, it is worthwhile to classify factors associated with the escalation of conflict in Darfur into two main categories: Root causes and direct factors. A brief description of each is given below.

(a) Root causes:

1- *Underdevelopment* (indicated by poor infrastructure, lack of development projects, unemployment, poor basic services).

2- *Marginalization* (indicated by poor representation in decision making, little influence on national policies, unbalanced regional policies).

3- *Lack of democratic governance* (indicated by ineffective public administration and rule of law institutions, totalitarian politics and ethnic polarization).

4- *Poverty* (indicated by the dominance of a subsistence economy, dependence on natural resources, recurring food shortages, comparative low income).

(b) Direct factors (or triggers)

1- Drought and desertification

Drought is an inherent feature of the arid regions of western Sudan, north Darfur and Kordofan. There have been five drought disasters over the last hundred years. Two of these, however, have occurred in the last twenty years alone. In these regions – lying between the isohyets 100 mm and 600 mm – a mere 100 mm decline in the mean annual precipitation could bring people and livestock to the brink of disaster. Rainfall data covering the period 1950–1990 reveal three major spans of drought, a relatively mild one in the mid 1960s, and two severe droughts in 1972–1974 and 1982–1984. In all three cases the drought was accompanied by flaring of skirmishes, the worst of which took place in mid 1980s and assumed the form of regular war. The correlation of rainfall data to conflict intensity over a 30 year period (1957–1987) reveals two interesting patterns: an increase in incidents of conflict with the corresponding decrease in rainfall and a lag between minimum rainfall and maximum conflict intensity of roughly one year, a relaxation period for the impact of the drought to take full effect (Suliman 1999).

The natural population increase has meant that each year new farmland has to be secured for newly starting families. Darfur's population has multiplied nearly five times since 1973 (from 1,350.000 to 6,480.000) according to the 1973 census and 2003 estimates from the central bureau of statistics. This has resulted in decreased wasteland and disregard for the practice of fallowing. Not only that, but even some nomad migratory routes and rest places have also been turned into farm-lands. Out of eleven migratory routes in the 1950s only three are functioning today in addition to a few newly found ones.

2- Increased animal population

Animal population has likewise increased drastically in the same period for different reasons. Because Sudan started exporting meat and life animals to Arab Gulf countries livestock breeders invested more in animal health care. Sedentary farmers were also lured to increase their stocks since farming can no longer satisfy their growing need for cash.

3- Population migration (internal and external)

Darfur witnessed two types of migration trends that directly affected land use patterns. A decade of mostly dry years (mid 1970s to mid 1980s) triggered internal migration from northern Darfur. The displaced sought refuge in the eastern goz to the south of El-Fasher as well as in the southern zone. These places sooner began to show signs of saturation. As mentioned earlier pastoralists from Chad were tempted to cross the borders and seek permanent settlement in Darfur. The fact that many tribes have extensions across the borders made such migrations difficult to monitor by Sudanese authorities.

4- Increased commercialized farming

With the spread of education and urbanization people in the rural areas became acquainted with new consumption patterns. As their need for cash increased their strategies in agriculture gradually became market-oriented. Oil seeds production (peanuts, sesame and water melon seeds) on the eastern goz has been greatly expanded to meet a growing export market. Vegetables and fruits cultivation is increasingly practiced where conditions permit. Small urban centers provided excellent marketing opportunities for such ventures. As result animal migration routes have been blocked in many places to provide more farmland or vegetable gardens.

5- Increased market-oriented livestock breeding

Because the expanding Sudanese livestock export market favors sheep razing, many nomadic pastoralists in northern Darfur started changing the structure of their herds by concentrating more on sheep and less on camels. Accordingly, migratory routes and patterns have been altered as an adaptive mechanism to the new trend. Moreover, sedentary farmers also took to sheep raising to the extent that they were actually competing with pastoralists. Some of them have even become pastoral transhumants. Accurate figures have yet to be produced by reliable authorities in order to substantiate such observations.

6- Increase of cultivated areas and fodder enclosures

Millet is the stable food crop in Darfur. Farmers are obliged to put more land under millet cultivation for two main reasons. The first one relates to decreased productivity because a farmer cannot expect the same amount of grain from the same area each year, therefore increases of the area cultivated becomes an important coping strategy. The second one relates to the increased number of new families that need to have their own farms, hence new land has to be cleared even if it is marginal and unproductive. Extended families cannot continue to secure the needs of their members from the same land as before. Such expansion becomes at the expense of land previously available for grazing animals. Pastoralists therefore continue to be disadvantaged by new developments.

7- Blocking of livestock migration routes

Blocking of *marahil* (animal migration routes) became more frequent. Some researchers have noticed that nomads often complain about such a practice which is against customary land tenure arrangements (Fadul 2004). The better pieces of land that lie around watercourses are utilized by farmers to grow fruits and vegetables resulting in the blockage of livestock routes. Blocking of routes has become a permanent item in the agenda of tribal reconciliation conferences convened for the last two decades to solve inter-ethnic disputes in Darfur. It is one of the common causes of resource based grass-root conflicts.

8- Spread of small arms

The last two decades witnessed a huge increase in the number of small arms in the hands of civilians in Darfur although no statistical estimates are available to proof it. Supplies flow from army stores (corruptive practices) and neighboring countries (mainly Libya and Chad). The availability of arms does not in itself represent a conflict factor but rather a catalyst which in the presence of hostilities contribute to rapid escalation of violent confrontations. Small arms help spread armed robbery in Darfur which lead to inter-ethnic violence.

9- Overspill of cross-boundary conflicts

One of the most important factors of conflict in Darfur relates to the fact that the region borders two neighboring countries (Libya and Chad) that have either been at war with each other or supported insurgent groups working across its borders. Since the 1960s Chad has constantly experienced various episodes of its long-lasting civil war. Most of the actors involved in the Chadian civil war share common ethnic identity with groups existing in Darfur. Both Zaghawa and nomadic Arab groups have kindred in Chad. The phenomenon of arbitrary boundaries that divides ethnic groups across international boundaries is a part of colonial legacy in most African countries. In the current war, Darfurian armed movements depend on Libya and Chad for their critical supplies. Sudan government retaliated by hosting Chadian rebels hoping to change the regime that backs the insur-

gency in Darfur. In addition to the political issue, many Chadian nomads actually have direct interest in the natural resources of Darfur which is relatively more hospitable than their country. Some of them have exploited the current situation and joined the government backed Arab militias (commonly known as Janjawid). This tendency resulted in the occupation of vast areas in West Darfur state where the sedentary indigenous population (mainly from Fur and Masalit ethnic groups) have been displaced and are currently living in camps.

A related critical issue in this regard is the position of those groups without *dars* (practically landless) who have been exposed to the above factors more than others. The northern Rizeigat abbala (camel pastoralists) have no dar of their own. This was in part because the granting of tribal dars favored larger tribes, and second because at that time land was not an issue; there were no shortages and the prosperity of Arab tribes depended on nomadic pastoralism and trade, not land ownership. Recently in Western Darfur, there were additional pressures from the influx of Arab groups from Chad many of whom have close ties with Sudanese nomadic groups. The issue of 'dar' became more critical following the pressures on the natural resources as a result of the ecological degradation combined with expanding rain-fed and wadi cultivation. One researcher has put it clearly: "With the pressure of the drought and in their quest for pasture and water, pastoralists violated customary arrangements that organize access to pasture and their passage during seasonal movements. While peasant and commercial farming expansion (both goz and wadi cultivation) encroached on pastoralist and transhumant grazing rights, pastoralists also have tended to deviate from defined and agreed upon seasonal movements routes, grazed on farms and damaged crops. Competition over resources created conflict among pastoralists on the one hand and between farming communities and pastoralists on the other, with negative implications for the environment and social peace within and between communities" (Al-Amin 1999: 82).

From complementarity to conflict: The oscillating nature of nomad-sedentary interactions

In the past two decades Sudan's export of livestock (mainly sheep) and meat has increased. This resulted in a tendency for sedentary cultivators to invest more in livestock breeding for commercial purposes; hence the competition with nomads. Moreover the increase in population of small urban centers has lead to the increase in the consumption of fruits and vegetables, leading to another trend of investment in horticultural activities by utilizing land near watercourses. It can therefore be assumed that in the present time/phase relations between nomadic pastoralists and sedentary cultivators in the savannah dry-lands of the Sudan generally tend to reflect more competition than complementarity because of emerging new factors.

Ecological diversity has profound impact on livelihoods in Darfur. Fundamental activities are based on agricultural production, livestock raising, trade, and migrant labor. A key feature in Darfur is the mix of cultivation and herding strategies for most households. In fact, most sedentary families combine livestock keeping with cultivation and at the same time, nearly all herders, except some camel owners, also practice crop cultivation. Whereas in the past most of these activities have operated in a more or less complementary fashion, new factors (or a special configuration of old and new) have lead to a complete crisis in the relationship between nomadic pastoralists and sedentary farmers.

But this situation is neither new nor unique to Darfur. History tells us that during the heydays of the Keira sultanate in Darfur there has been uneasy relationship between the Fur rulers and various Baggara tribes that ended in violent confrontation with the state several times. The camel nomads of the north had their animals confiscated by the Sultan more than once. It seems that whenever options for livelihood strategies have been reduced there is a tendency for nomadsedentary relations to move towards more competition. The reverse is actually true. What has happened in the past is being replicated again in the current crisis although the particularities are different. Moreover, there are new factors that make the current situation more complex. Conflict factors are no longer emerging from Darfur as they used to be in the past. Factors from outside the region now have a leading part in the ongoing crisis. The role of the central government remains crucial in this respect.

In the face of such evidence it is tempting to conclude that the nature of relations between the two dominant livelihood patterns (nomadic pastoralism and sedentary cultivation) cannot be considered either permanently opposed to or permanently complementary with each other. It can therefore be said that such relationship tends to be oscillating between the two poles of complementarity and conflict. Factors that affect the environment (in a broad sociological sense) tend to cause such relationship to tilt towards one pole or the other. For this reason it is of great importance to identify the most relevant and crucial factors and classify them into root causes and direct factors (triggers). This can facilitate a better understanding of the nature of the crises that Darfur is witnessing at the moment. According to such a scheme, it becomes clear that factors related to the role of the state are mostly responsible of the escalation of conflict. Discussing the 1980s Fur-Arab conflict, Harir has eloquently summarized the general argument pertaining to the explanation of ethnic conflicts when he concluded: "Environmental conditions, such as those which were dominant in Dar Fur and the Sudan, in general, created suitable preconditions for ethnic conflicts. However, were it not for the prevalent local, regional, and national political situation, in addition to the geopolitics of the area which made the continuous supply of 'cheap' arms possible, this conflict might not have been so brutal a war as it became in Dar Fur" (Harir 1994: 184).

Concluding remarks

Users of natural resources in the savannah belt of the Sudan have a long time experience of complementary relations with each other in the various sectors of economic activities. What determines the relationship between pastoralists and cultivators is not only the immediate ecological conditions but also a host of other factors such as population increase, expansion of agriculture, inadequate national policies and insecurity arising from conflict and civil wars and failure of governance in general.

Since the Sahelian drought of 1970 more pressure was put on the savannah drylands of the Sudan. The cultivators from North Darfur resettled in South Darfur. Camel nomads of the semi desert ventured more into the savannah to the extent of competing with cattle nomads for pastures. The carrying capacity of pasture degraded as animal numbers increased. Land productivity also degraded leaving farmers with no option but to put more land under cultivation. In other words the accumulated effect of human activity resulted in desertification. These conditions resulted in more grassroots (local) conflict regarding rights of use over natural resources (mainly land and water). It is true to say that minor skirmishes between groups with regards to natural resources always existed. But there were traditional mechanisms for settling such conflicts amicably in the past. The heightened conflicts of the last two decades are rather extra-ordinary in that external factors have come to interfere more strongly transforming these local conflicts into wide-scale communal antagonisms ending up in war (Suliman 1999).

The current situation of interlocking conflict between pastoralist and farmers in many hot spots (like Darfur) in the savannah belt in Sudan is not insurmountable but it takes more than the application of traditional mechanism for conflict resolution (which are incapable of handling these conflicts at the moment). Instead, efficient and effective governance at the national and state levels need to be reinstalled in a proper manner. There is a need for a responsible accountable and efficient system of governance in Sudan that can deliver better management of the public domain.

It is important to highlight the fact that pastoral nomadism does not exist as an independent economic system, but as an economic activity interacting with sedentary agriculture. The history of relations between the people pursuing these alternative lifestyles is characterized by dynamic tensions and mutually beneficial interactions. Actual herder/cultivator interactions can be quite varied based on contextual factors such as local government, environmental differences, migrations, etc. Access to land is an issue according to which much of these conflicts are perceived. When these rights are contested it should not be considered simply as a matter of legal rights of land ownership. Contestation of land rights is not only an expression of a much complex history of relationships between groups but also a register of shifts regarding coping strategies and involvement of external forces. The Darfur case illustrates all these complexities.

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