

## The Consequences of Darfur conflict on the dynamics of livestock ownership and migratory routes in West Darfur

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**ABSTRACT:** The study of impact of Darfur conflict on the dynamics of livestock ownership and migratory routes was conducted in two localities (Zalingei and Wadi Salih) in West Darfur State during the period from August 2007 to March 2009. The objectives of the study are to find out the effects of the conflict on the dynamic of livestock ownership, and migratory routes. The methods applied for data collection in this study were the participatory approaches (Participatory Rural Appraisal PRA & Rapid Rural Appraisal RRA) through which the questionnaire was developed of twenty six questions covering animal water resources, pasture and migratory routes before and during the course of the conflict in the two localities. Two hundreds and fifteen questionnaires were distributed to one hundred and twenty one villages and Damras within eight administrative units of the two localities. Data collected from twenty seven tribes comprising the pastoralists, agro-pastoralists, sedentary herders and IDPs. The results showed that The increase in the nomads' livestock percentage from 64% before the conflict to 93% currently and the drop on percentage of livestock owned by IDPs from 32% before the conflict to 0% could be due to raiding and looting from other categories, natural growth and /or migration from insecure areas and accumulation at safer areas for the increase, and for the decrease might be attributed to the raiding , looting of livestock and displacement of the IDPs to the camps which let to shift on ownership from category to category.

(Dawoud A A, Hamid, O I A. **The Consequences of Darfur conflict on the dynamics of livestock ownership and migratory routes in West Darfur.** *Nat Sci* 2012;10(12):200-204]. (ISSN: 1545-0740). <http://www.sciencepub.net/nature>. 30

**Key words:** Conflict, Darfur, Livestock, Migratory routes, Ownership

### 1. Introduction

Since 2003, the Greater Darfur region has experienced armed conflict that has undermined and reversed most developmental programmes and activities carried out in the region. An estimated two million people have been displaced from their original villages and are living in camps. The conflict, involving warring parties (rebel groups against the government) and the presence of militia groups and Chadian opposition rebel group activities in the region have resulted in complex humanitarian consequences leading to the loss of assets, livestock and productive capacity of affected civilian populations. Considering the prevailing security situation in the area and due to the accessibility, the study will be restricted in two localities (Zalingei and Wadi Salih). The total livestock population in Zalingei locality are; 220, 23, 160 and 17 thousand heads for cattle, camels, sheep and goats and equines, respectively. Meanwhile the total population of livestock in Wadi Salih are; 406, 37, 100 and 92 thousand heads for cattle, camels, sheep & goats and equines respectively (FAO 2008). Before the current armed conflict, a conflict already existed between farmers and nomadic groups, resulting from stiff competition over common limited land and natural

resources within the area, particularly water points, pastures and farming lands. Droughts experienced in 2000, 2001 to 2004 fueled an already volatile situation where natural resources are limited.

The population of the area is largely categorised by two groups; nomads who owned large numbers of livestock (cattle, sheep, goats, camels, etc and agro-pastoralists who owned livestock (presently majority own donkeys and small ruminants) and practice sedentary agriculture (Simpkin, 2005). Tonah (2006) opined that the factors that account for the increasing farmer-herder conflict include the southward movement of pastoral herds in to the humid and sub-humid zones, promoted by successful control of the menace posed by disease, the widespread availability of veterinary medicine and the expansion of farming activities in to areas that hitherto served as pastureland. He further suggested that since the 1950s there has been growth in human as well as livestock population in the costal countries of West Africa. A majority of the people has limited access to farming land, thus their food production is severely decreased.

Nomadic groups have taken advantage of the conflict to occupy the vacated areas. IDPs that have had access to land now have had their crops

destroyed by livestock. The lives of the IDPs have been ravaged by the violent conflict: their villages have been burned; their assets have been lost, depleted and/or destroyed; and most social infrastructure that existed before the conflict has been destroyed. Communities had lost their productive capacity through the loss of livestock and livelihood coping mechanisms. Many IDPs lost their livestock because of looting, death as a result of poor feeding; and/or lack of veterinary support services. Also, some sold their livestock due to difficulties in managing them. On the other hand, nomadic groups, before the conflict had designated migratory routes for their livestock as they moved from the southern to northern part of the area (usually close to the start of the rainy season) enabling agro-pastoralists for cultivation crops. The nomads moved southwards just after harvesting of crops in search for water and pasture for their livestock. Due to the conflicts, livestock migratory routes have been disrupted resulting in large numbers of livestock concentrated in areas which were previously used for cultivation of crops. Farmers also started cultivating crops in areas which were previously livestock trekking routes. This resulted in major violent conflicts over land ownership among the communities. High concentration of livestock in one area has exerted enormous pressure on pasture lands and degraded pasture resources and water points. Communities lost their land and livestock that formed backbone of their livelihood and some of the communities become more vulnerable due to their ownership of livestock (Simpkin, 2005). The objective of this study is to evaluate the effect of Darfur conflict on the dynamics of livestock ownership and migratory routes.

## 2. Materials and Methods

### 2.1 Area of the study:

This study was conducted in West Darfur State, in two localities (Zalingei and Wadi Salih) during the period from August 2007 to March 2009.

### 2.2 Zalingei locality:

Zalingei locality is main locality in Eastern West Darfur State localities, and Zalingei town is the head quarter of the locality, lies between coordinates of (Lat. N 12 degree 54 feet, and Lon. E 23 degree 28 feet) composed of four administrative units (Zalingei, Abata, Azum and Triej).

### 2.3 Wadi Salih locality:

Garsila is the head quarter of Wadi Salih locality Lies between coordinates of (Lat. N 12 degrees 23 feet and Lon. E 23 degree 07 feet) and to the south direction of Zalingei locality and composed of four Admin, units (Garsila, Bendesi, Um Khair and Deliej)

### 2.3 Methods:

The methods applied for data collection in this study were participatory approaches (Participatory Rural Appraisal PRA & Rapid Rural Appraisal RRA) (MANAGE 2007) through which the questionnaire was developed of twenty six questions covering animal health, animal husbandry, animal protection and animal production in the two localities. Two hundred and fifteen questionnaires were distributed to one hundred and twenty one villages and Damras within eight administrative units of the two localities (Abata, Azum, Bendesi, Deliej, Garsila, Teriej, Um Khair and Zalingei). Data collected from twenty seven tribes comprising the pastoralists, agro-pastoralists, sedentary herders and the IDPs within (121) Damras and villages of the area, thus, the livestock population represent the total population in the area of the study.

### 2.4 Statistical Analysis:

The data collected were analyzed using SPSS 14 (SPSS, 2009) program. Frequencies were obtained for the whole data, and through cross tabulation the numerical data and figures were estimated.

## 3. Results and Discussion

### 3.1 Livestock ownership:

There are three categories of livestock owners, nomads, sedentary communities and internally displaced persons (IDPs). The data in figure (1) showed that 79% of the livestock owners are nomads, 3% sedentary communities and 18% are IDPs. The data in table (1) demonstrated the livestock population owned by the three categories (nomads, sedentary communities and IDPs) before the conflict. Nomads owned 580, 176, 174 and 39 thousands heads of cattle, sheep, goats and camels respectively, while Sedentary communities have 35, 13, 5.5 and 2.7 thousands heads of cattle, sheep, goats and camels respectively, and the IDPs owned 150, 159, 175 and 3.5 thousands heads of cattle, sheep, goats and camels respectively.

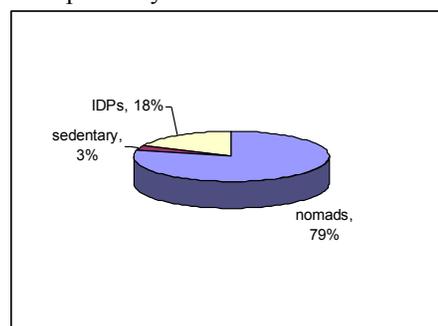


Figure (1) livestock owners according to the respondents

The results in table (2) showed the current livestock population owned by different categories. Numbers of livestock owned by Nomads are: 612,

121, 122 and 23 thousands heads for cattle, sheep, goats and camels, respectively. Sedentary communities owned 42, 12, 7 and 5 thousands heads of cattle, sheep, goats and camels respectively. IDPs owned 0.8, 0.3, 0.07 and 0.02 thousands heads of cattle, sheep, goats and camels respectively.

**Table (1) Livestock ownership categories before the conflict (according to the respondents)**

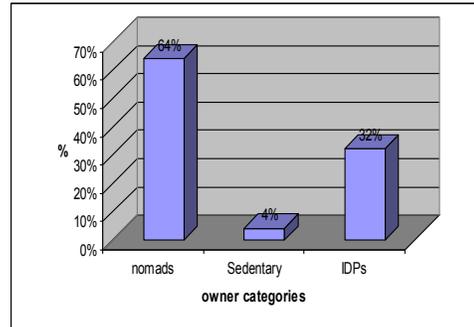
Category	Owner				
	Cattle	Sheep	Goat	Camel	Total
Nomadic	580705	176470	174990	39323	971488
Sedentary	35400	13000	5500	2700	56600
IDP	150138	159331	175897	3556	488931
<b>Toatl</b>	<b>766243</b>	<b>348801</b>	<b>356387</b>	<b>45579</b>	<b>1517019</b>

**Table (2) Current livestock population per ownership categories (according to respondents)**

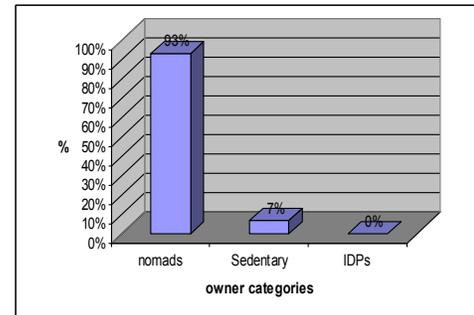
Category	Owner				
	Cattle	Sheep	Goat	Camel	Total
Nomadic	612850	121265	122240	23145	879500
Sedentary	42500	12750	7125	5660	68035
IDP	890	350	75	20	1335
<b>Toatl</b>	<b>656240</b>	<b>134365</b>	<b>129440</b>	<b>28825</b>	<b>948870</b>

The data in figure (2) showed that before the conflict nomads, sedentary communities and IDPs possessed 64%, 4%, and 32% of total livestock population in the area respectively. While the results in figure (3) revealed that the current percentage of livestock population owned by nomads, sedentary, and IDPs communities was 93%, 7%, and 0% of total livestock population in the area, respectively. The increase in the nomads' livestock percentage from 64% before the conflict to 93% currently could be due to raiding and looting from other categories, natural growth and /or migration from insecure areas and accumulation at safer areas. The drop on percentage of livestock owned by IDPs from 32% before the conflict to 0% might be attributed to the raiding, looting of livestock and displacement of the IDPs to the camps which led to shift on ownership from category to category. These results were in harmony with those of Simpkin, (2005) who reported that often, livestock are slaughtered to generate income or stolen by soldiers, militias or other desperate people to change ownership. Forced migration of people without their animals can also severely affect the lives and livelihoods of livestock owners. Moreover, the result agreed with the findings of Young, (2005) who stated that in economic terms, livestock is the primary target of this conflict. Various sources suggested that the non-Arab population lost between 50-90% of their livestock due to the government armed forces. Solving the livestock issues are central to finding lasting solutions to the problems in Darfur.

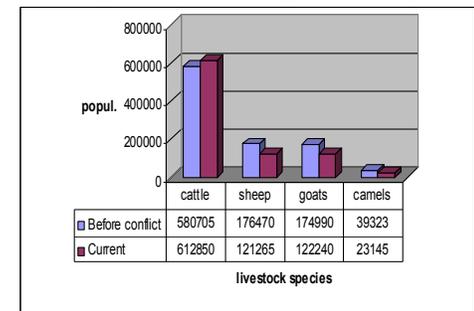
The data in figures (4), (5) and (6) showed the comparison between the ownership of the three categories (nomads, sedentary and IDPs) before the conflict and the ownership of the same categories in the current time. The nomads' and sedentary current cattle population increased. While the current cattle population for the IDPs is sharply dropped to Zero, this clearly indicated the impact of the conflict on livestock ownership in the area.



**Figure (2) Percentage of livestock per categories before conflict (according to the respondents)**



**Figure (3) Current Percentage of Livestock per Owner Categories (according to the respondents)**



**Figure (4) Nomads livestock population before and after conflict**

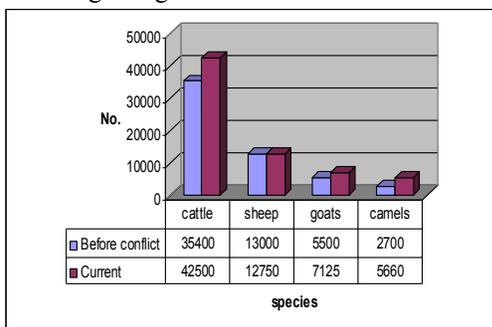
**3.2 Relationship between pastoralists and farmers:**

The data in figure (7) showed that the relationship between the nomadic pastoralists and sedentary farmers was affected by the conflict. Sixty six percent of the relationships between the pastoralists and farmers turned to be bad, while 34% of the relationships remained as good relationships,

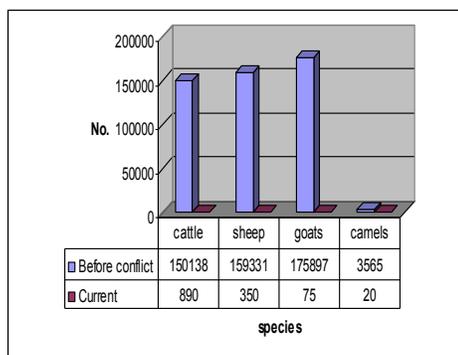
the bad relationships between the pastoralists and farmers could be due to the blockage of migratory routes, destruction of farms and/or competition over scarce resources as the results in figure (8) demonstrated that 34% of the reasons for bad relationship between pastoralists and farmers were the conflicts, while 28% of the reasons were obstruction of migratory routes and 38% of the reasons were destructions of field crops. The results were in accordance with those of Hendrickson et al (1998) who stated that the direct impact of raiding on livelihood security is devastating, while the threat of raids and measures taken to cope with this uncertainty undermine herders' relationships and livelihood strategies. Moreover, Simpkin (2005) revealed that Pastoralist's communities in searching for acceptable grazing land often clashed with other pastoralists seeking the resources. However, pastoralists were increasingly impinged on fertile land cultivated by sedentary groups near same waterways.

**3.3 The migratory routes:**

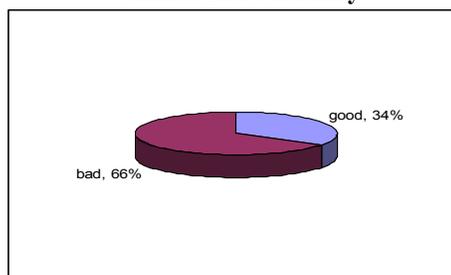
The data in figure (9) revealed that livestock migratory routes were affected by the conflict, 61% of the migratory routes were changed. The result in figure (10) explained that the main reason for changes in the migratory routes was the conflict. It was found that 95% of reasons were the ongoing conflicts. While 3% of the reasons were fires and 2% of them were cultivations in the livestock migratory routes. However, the results in this study agreed with those of Young (2005) and Simpkin (2005) who reported that some of the routes have been altered due to weak law enforcement, expansion of farmlands, increased hostility between the Arabs and non-Arabs and the control of some critical areas by the SLA along the traditional migratory routes which resulted in the restriction of access for the Jamala (northern Arabs) pastoral population to the wet season grazing reserves.



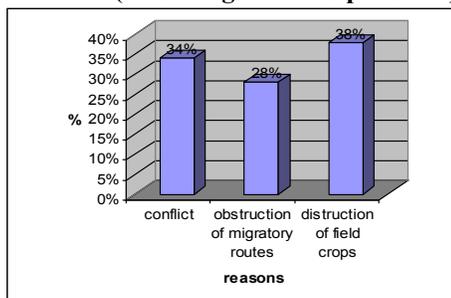
**Figure (5) Sedentary livestock population before conflict and Ccurrently**



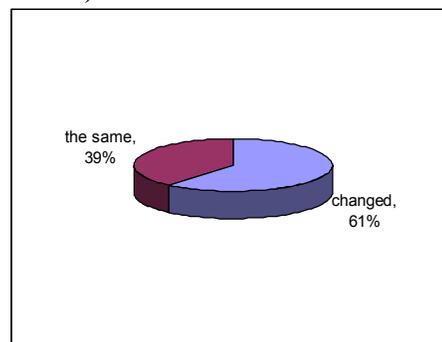
**Figure (6) IDPs livestock population before conflict and currently**



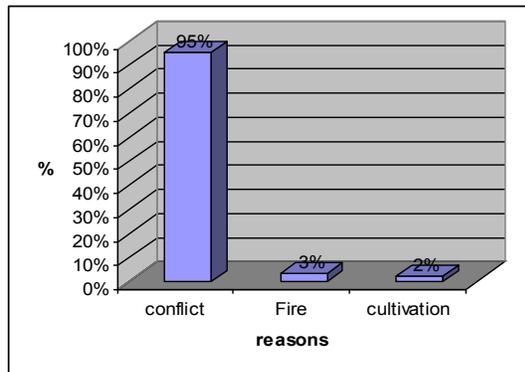
**Figure (7) Relationship between pastoralists and farmers (according to the respondents)**



**Figure (8) Reasons for bad relationship between pastoralist and farmer (according to the respondents)**



**Figure (9) Migratory routes status (according to the respondents)**



**Figure (10) Reasons led to changes in migratory routes (according to the respondents)**

#### 4. CONCLUSION

The ownership of livestock was changed specially among IDPs. The percentage of livestock owned by IDPs dropped from 32% before the conflict to approximately 0% during the course of the conflict. Moreover, sixty six percent of the relationships between the pastoralists and farmers turned to be bad. The livestock migratory routes have been altered and mostly changed due to the conflict, weak law enforcement and expansion of farmlands.

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11/10/2012

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