

## **Impact of Darfur Conflict on Livestock Population in West Darfur State**

<sup>1</sup>Ali Ahmed Dawoud and <sup>2</sup>Omer Ibrahim Ahmed Hamid

<sup>1</sup>Field Coordinator of Animal Production, FAO Office Zalingei, West Darfur State, Sudan

<sup>2</sup>Department of Dairy Science and Technology, College of Animal Production Science and Technology, Sudan University of Science and Technology, Sudan

*Corresponding Author: Omer Ibrahim Ahmed Hamid, Department of Dairy Science and Technology, College of Animal Production Science and Technology, Sudan University of Science and Technology, Sudan*

### **ABSTRACT**

The impact of Darfur conflict on livestock population and ownership was conducted in two localities (Zalingei and Wadi Salih) in West Darfur State from August 2007 to March 2009. The objectives of the study were to find out the effects of the Darfur conflict on the livestock population in west Darfur state. The methods applied for data collection in this study were the participatory approaches (Participatory Rural Appraisal PRA and Rapid Rural Appraisal RRA) through which the questionnaire was developed. 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 there was a reduction in livestock population from one and half million before the conflict to approximately one million heads of animals from different species.

**Key words:** Conflict, darfur, livestock, population

### **INTRODUCTION**

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 livestock population in West Darfur State was 11.4 million heads of animals (3.9, 3.7, 3.4 and 0.35 million heads of cattle, sheep, goats and camels, respectively). 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 and goats and equines, respectively (FAO, 2008).

The conflict in Darfur has been catalyzed by employment of military solutions to resolve social and economic problems being experienced in the area; weak administrative and legal system whereby presence of armed parties in the area has undermined and eroded customary leadership and authority that existed and was responsible for land allocation and settlement of disputes which led to looting of properties (Simpkin, 2005). Tonah (2006) opined that the factors that account for the increasing farmer-herder conflict include the southward movement of pastoral herds into the humid and sub-humid zones, promoted by the successful control of the menace posed by disease, the widespread availability of veterinary medicine and the expansion of farming activities

into areas that hitherto served as pastureland. He further suggested that since the 1950 s there has been a growth in human as well as livestock population in the coastal countries of West Africa.

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). 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 (Young *et al.*, 2005). The main objectives of this study were: to study the impact of conflict on total population of livestock, to study the livestock ownership and the problems associated with, in regards to the effects of conflict.

## **MATERIALS AND METHODS**

**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.

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

**Wadi salih locality:** Garsila is the head quarter of Wadi Salih locality Lies between coordinates of Lat. N 12, 23 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).

**Methods:** The methods applied for data collection in this study were participatory approaches (Participatory Rural Appraisal PRA and Rapid Rural Appraisal RRA) (MANAGE, 2007) through which the questionnaire (annex ii) was developed of twenty six questions covering.

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.

**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.

## **RESULTS AND DISCUSSION**

**Livestock species:** The data in Fig. 1 revealed that 99.1% of animal species in the area are local breeds, while 0.9% of species are cross breeds, this result could be due to the fact that; no work has been done for improvement of local breeds in the area, however, local breeds are more resistant to the diseases and more adaptable to the environment than foreign blooded breeds.

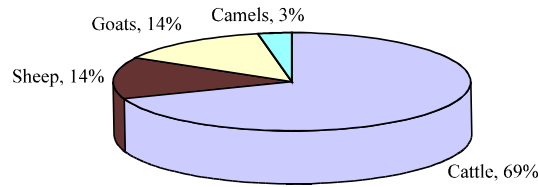


Fig. 1: Livestock species percentage (according to the respondents)

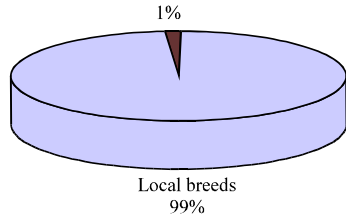


Fig. 2: Animal breeds percentage (according to the respondents)

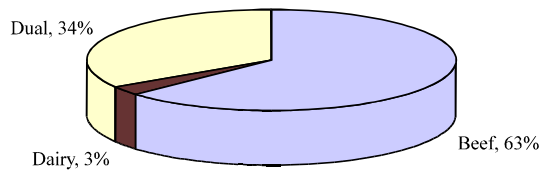


Fig. 3: Purpose for animal breeding (according to the respondents)

**Animal breeds:** Statistical analysis of the data in Fig. 2 showed that; 63.2% of the herders bred animals for meat production, while only 2.8% of them reared animals for milk production and 34% of them bred animals for dual purpose, the high percentage of cattle bred for meat production probably attributed to the fact that the majority of the herders’ in the area owned cattle of Baggara type which is for meat production.

The analyzed data in Fig. 3 demonstrated that percentage of the total livestock populations in the area are 69, 14, 14 and 3% for cattle, sheep, goats and camels, respectively. The results also indicated that 94.9% of the pastoralists in the area are reared cattle, while 5.1% are bred other species. Camels’ do not comprise much population in the area. Only 27.9% of the pastoralists possess camels, while 64.7% of the herders reared sheep and 69.3% of them owned goats. Horses are owned by 65.1% of the animal breeders in the area and 67.4% of the herders possessed donkeys. The dominance of cattle species could be due to the fact that; cattle were the most economic animals. These results confirmed the results of Young *et al.* (2005).

**Livestock population before conflict:** The results in Table 1 showed that the livestock population before the conflict was about one and half million heads of different species (766, 348, 357 and 45 thousand heads of cattle, sheep, goats and camels, respectively).

While, the data in Table 2 demonstrated that the current livestock population was estimated to be 948,870 heads of animals from different species (656, 134, 129 and 28 thousand heads of cattle, sheep, goats and camels, respectively). In comparison between livestock population before conflict and livestock population at the current time, it was very clear that there is decrease in livestock population.

Table 1: Livestock population before the conflict (according to the respondents)

Admin unit	Cattle	Sheep	Goats	Camels	Total
ABATA	195757	116048	125483	2984	440272
AZUM	107220	67500	66500	4010	245230
BENDISI	92100	52250	51070	18700	214120
DELIEJ	72100	28820	24550	6520	131990
GARSILA	115200	30420	37680	1000	184300
TRIEJ	103580	20800	14700	3624	142704
UM KHAIR	57400	15780	17870	8733	99783
ZALINGEI	22886	17183	19284	17	59370
Total	766243	348801	357137	45588	1517769

Table 2: Current livestock population (according to the respondents)

Admin unit	Cattle	Sheep	Goats	Camels	Total
ABATA	191800	10600	9000	1420	212820
AZUM	28800	10750	8375	2500	50425
BENDISI	78950	34360	38375	9000	160685
DELIEJ	61950	21575	16580	5020	105125
GARSILA	97150	20800	27430	700	146080
TRIEJ	131220	22980	17250	6600	178050
UM KHAIR	50400	13300	12430	3585	79715
ZALINGEI	15970	0	0	0	15970
Total	656240	134365	129440	28825	948870

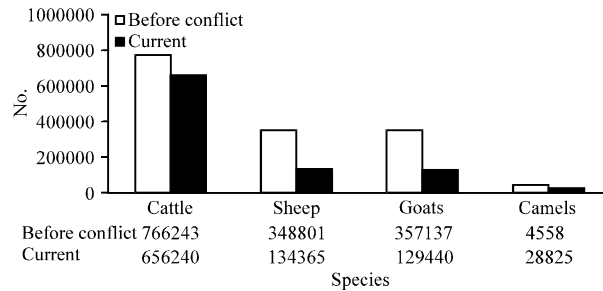


Fig. 4: Comparison between livestock population before conflict and now

The decrease in livestock population during the course of the conflict could be due to migration of herders to the safest areas, killing of animals during the war time, looting of animals and buying or slaughtering by the perpetrators. These results concurred with those of Young *et al.* (2005) and Amin (2009) who reported that due to the current conflict the raiding and looting is increased, some owners have lost whole herds, others migrated with their herds to the town boundaries and even camps where they are facing difficulties in accessing good pasture. They entered the secured towns and settled in temporary houses or camps. Their animals are kept loosely so most of them have been looted either by thieves or armed robbery. The results in Fig. 4 showed that the decrease in the current populations of sheep and goats compared to their populations before the conflict was 60%. The decrease in cattle and camels was about 30% of the population. This decrease could be attributed to the armed robbery, raiding and slaughtering of the animals by the perpetrators. The results were inconsistent with those of Simpkin (2005) who stated that apart from being killed or wounded by bullets, bombs and landmines, livestock are often stolen or slaughtered by different

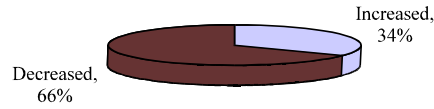


Fig. 5: Livestock population status (according to the respondents)

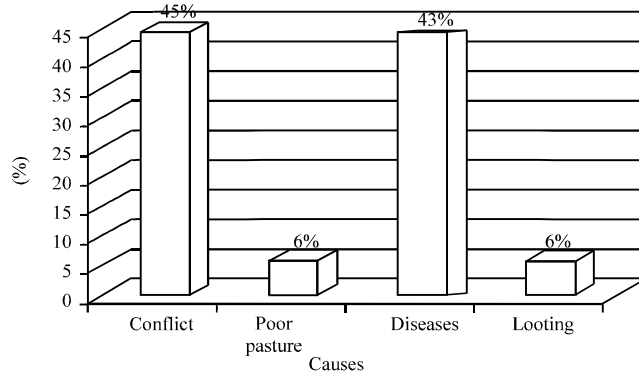


Fig. 6: Causes for decrease in livestock population (according to the respondents)

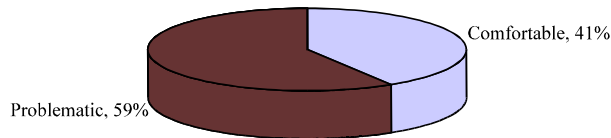


Fig. 7: Pasture situation (according to the respondents)

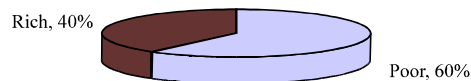


Fig. 8: Pasture situation (according to the respondents)

militias or raiders, or left to wander without herdsmen or killed by wild animals. The decrease in livestock population also might be due to migration of herders to the safest areas. Moreover, our findings were in agreement with those of Mohammed (2005).

**Livestock population status:** The results in Fig. 5 showed that 66% of the respondents said that the livestock population was decreased while 34% told that it was increased and according to the assumption of the majority the livestock population was decreased and that could be due to the fact that the stock-keepers have been displaced and lost most of their stock. They entered the secured towns and settled in temporary houses or camps, these as were reported by Young *et al.* (2005). The data in Fig. 6 demonstrated that 45% of interviewed livestock owners said, the conflict was main cause of decrease in livestock population, while 43% of them assumed that the losses in livestock was due to diseases and only 6% of the herders said that poor pasture and looting were the causes of the decrease in livestock population. Decrease in livestock population could be attributed to the raiding and looting of animals. These results were in agreement with those of Young *et al.* (2005).

**Pasture situation:** The results in Fig. 7 and 8 showed that 59% of the pasture was uncomfortable and inaccessible while 41% of livestock owners said that pastures are comfortable and 60% of the

pasture was poor. The inaccessibility to pastures probably due to security reasons, while the poor pasture was due to overgrazing in the limited pastures and the herders could not move to the high lands and rich pastures for security reasons. These results are in line with those of Simpkin (2005) who stated that high concentration of livestock in one area has exerted enormous pressure on pasture lands and degraded pasture resources and water points.

## **CONCLUSION**

The livestock population was drastically decreased as a result of impact of the conflict and the pasture was uncomfortable and poor due to overgrazing in a limited pastures area and restriction of movements to the high lands for security reasons. The livestock migratory routes have been altered and mostly changed due to the conflict, weak law enforcement and expansion of farmlands.

## **REFERENCES**

- Amin, A.I., 2009. Overview of the general situation of livestock in Darfur, before and after the conflict. Proceedings of the Livestock Workshop in Nyala (LWN'09), Department of Animal Production, Faculty of Veterinary Science, University of Nyala.
- FAO, 2008. West Darfur emergency coordination unit: Veterinary units assessment. Food and Agriculture Organization of the United Nation, State Ministry of Animal Resource.
- MANAGE, 2007. Participatory approaches in agricultural extension. National Institute of Agricultural Extension Management, Rajendranagar, Hyderabad andhra Pradesh, India.
- Mohammed, A.S., 2005. The impact of conflict on the economy: The case of Plateau State of Nigeria. <http://www.odi.org.uk/events/docs/122.pdf>
- SPSS, 2009. Statistical Package for Social Sciences. Version 14, SPSS Inc., Carry, NC., USA.
- Simpkin, S.P., 2005. Regional livestock study in the Greater Horn of Africa: Sudan country profile. ICRC, Khartoum, Sudan.
- Tonah, S., 2006. Migration and farmer-herder conflicts in Ghana's Volta Basin. *Can. J. Afr. Stud.*, 40: 152-178.
- Young, H., A.M. Osman, Y. Aklilu, R. Dale, B. Badri and A.J.A. Fuddle, 2005. Darfur: Livelihoods under siege. Feinstein International Famine Center, Tufts University, Medford, MA., USA. [http://pdf.usaid.gov/pdf\\_docs/PNADC475.pdf](http://pdf.usaid.gov/pdf_docs/PNADC475.pdf)