



Tropentag 2013, Stuttgart, Germany  
September 17-19, 2013

Conference on International Research on Food Security, Natural Resource  
Management and Rural Development  
organised by the University of Hohenheim

---

## Impact of Darfur Conflicts on Animal Health Delivery Systems on North Darfur State, Sudan

<sup>1</sup>Adam.A. Bushara,<sup>2</sup> Itidal Abdallah Busharah,<sup>3</sup> Khitma.H.El Malik

<sup>1, 3</sup> Khartoum University, Faculty of Veterinary Medicine, Department of Preventive Medicine, Sudan

<sup>2</sup> Veterinary Research Institute, Department of Diagnosis and Pathology, Khartoum, Sudan. E.mail:  
itidalbushara@hotmail.com

### Introduction

North Darfur state is located in the transitional zone and desert zone, Animal population in North Darfur was estimated to be 7.079.015 (Camels 397.172, goats 2.656.808, Sheep 3.396.505 and Cattle 449.745)(Young and Osman,2005),PACE 2003and Ministry of Animal Resources and Fisheries annual report,2008).

Conflict became endemic greater Dar fur and particularly in N-Darfur, There are a number of causes to the conflicts in Darfur. The main ones are drought and completion over resources, previous tribal conflicts in late 1980s and 1990s and underdevelopment of nomadic tribes within Darfur (WFP,2006). This type of conflict has been transformed and accelerated in recent years through access to modern weapons (Elsamani, 1997). Conflict has caused huge loss of lives human and animals, resulting in large-scale displacement and increasing the stress on natural resources. This study is designated to study the impact of Darfur conflicts on the animal health delivery system on North Darfur State.

### Material and Methods

1-Study area: Attempts will be made to study the impacts of conflicts on animal health and veterinary services for nomadic groups and rural communities in North Darfur State. hundred villages were selected from rural areas, twenty villages were randomly selected, from these villages 10% of the households (HHs) numbers were selected for the questionnaires and group of 5-8 HH members were chosen for (semi-structured interviews, focus group discussions, mapping).The groups selected covered 14 localities and administrative units, dominated by many tribes including Miedobs in Malha, and Fur groups in North Kabkabiya and Berti groups in Dar Elsalam and Maliet. The selected groups included nomad, sedentary populations as well as internally displaced people (IDPs). Three principal criteria determined the site selection: food economy zones, IDPs camps coverage and ethnic representation. The other factors considered were population size and NGO presence.

The questionnaires were constructed according to the guide of FAO (1985). The final format was made after pretesting (Buchanan-Smith,2005).The research adopted a mixture of descriptive and analytical Participatory rapid Appraisal approaches; primary and secondary data were used (Catly and Merner, 2002).Secondary data used Semi-structure interviews (SSI) were conducted with local community leader and key informants, CAHW, vet staffs, herd owners in the villages and the camps, and livestock traders.

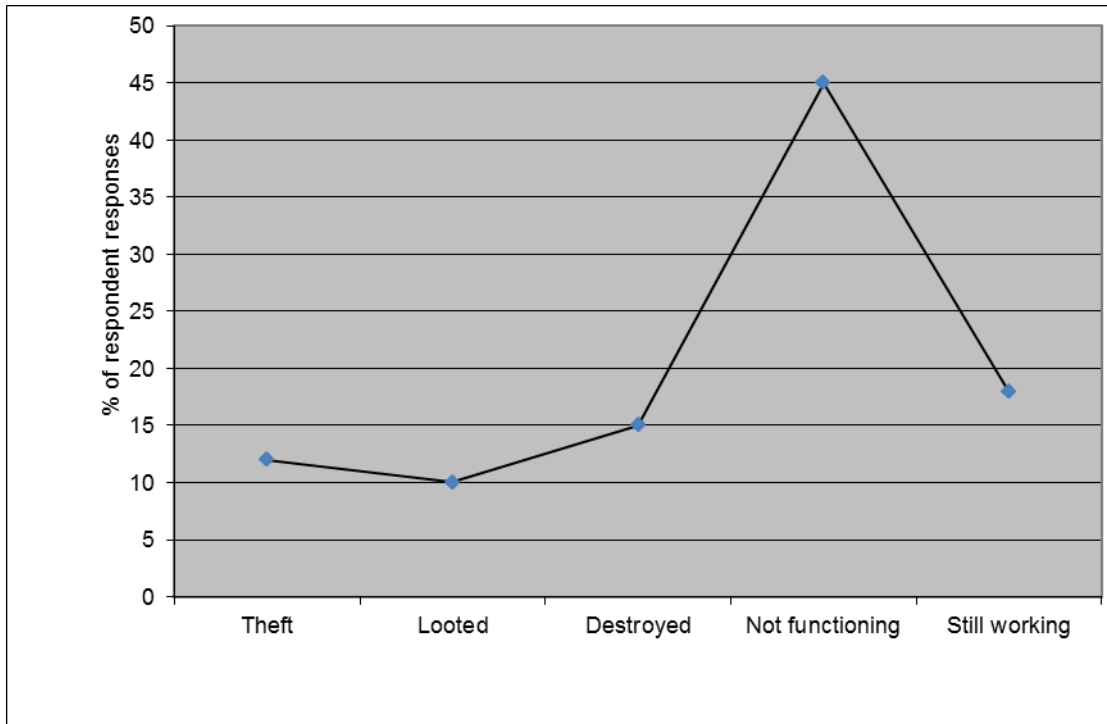
### Results and Discussion

#### 1. Impact on livelihood

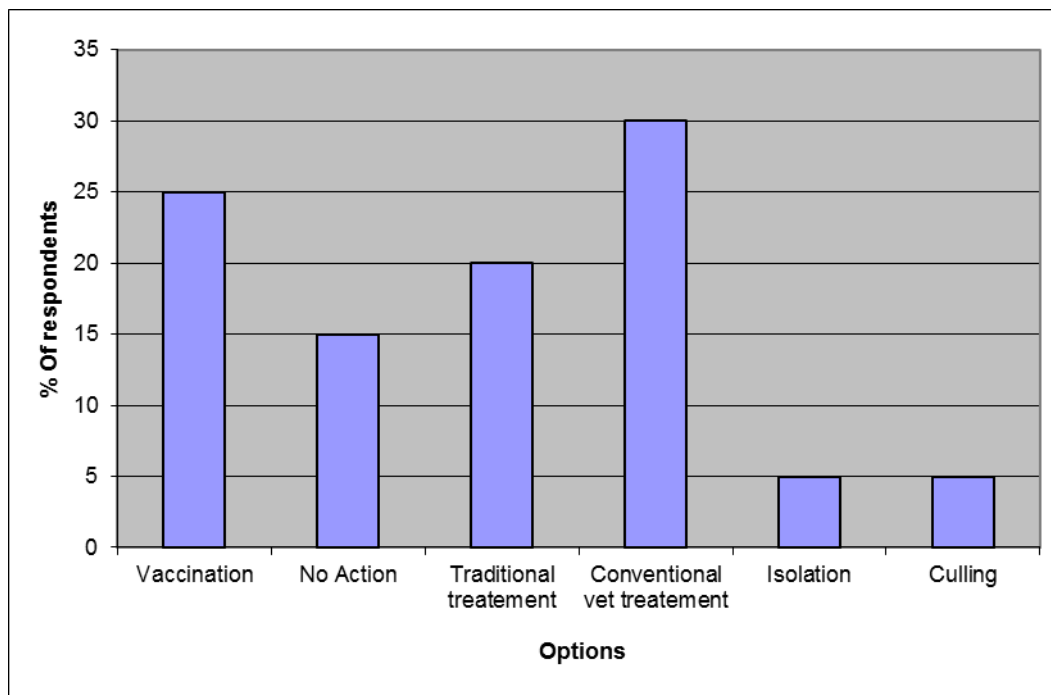
According to the location and seasonal calendars, seasonal livestock migration usually from north to south in the dry season has been severely disrupted by the conflict. Many pastoralist groups are effectively marooned in one area with very limited mobility, putting pressure on limited grazing and water resources. Such high concentrations of animals make them highly vulnerable to livestock disease.

#### 2. Impact on veterinary services delivery system

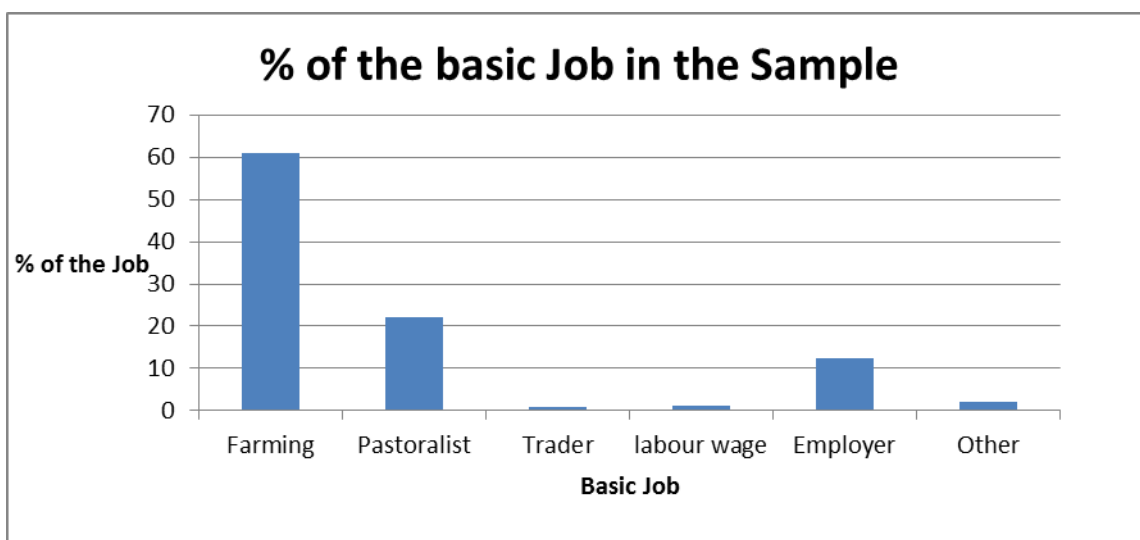
It is reflected in veterinary clinic infrastructures (Fig.1), diseases control option( Fig.2), types of work and sources of income (Fig.3), the human resources (Table.1), uses of the livestock and management system; which all show a visible deterioration.



**Fig. 1: Situations of veterinary clinics infrastructures in rural areas during the conflicts**



**Fig. 2. Ranking of disease control options by livestock keepers**



**Fig. 3: Distributions of respondent according to types of work and sources of income**

**Table:1. Shows veterinary human resources in the State.**

Total	Description	No,
94	Veterinarians	1
94	Veterinarians	1
85	Animal production inspectors	2
15	Veterinary Technicians	3
38	Veterinary nurses	4
500	CAHWs	5

Use of the livestock affected during the conflicts; 80% traditional use and 20% commercial uses. The traditional one;30% transport for water, hay, charcoal, fuel woods, 20% riding and transport,15% marriage and social obligations, 10% agricultures(ploughing and cart pulling)and 5% meat and milk consumption. The commercial uses 15% sale, 3% hire for transport and 2% hire for ploughing. The management system was affected: 52.6 % of the animals were looted, 18.7% were forced to sale or slaughter, 14.7% retained and 14 % migrated to neighboring countries.

### **3. Types and causes of conflict**

The main reason for tribal conflicts in Darfur is competition over natural resources including land; pasture and water due to limited resources resulting from successive drought in 1970 and 1980s coincided with increased number of population and livestock numbers. Other factors are competition over power eg; a high degree of theft between a member of the different tribes (hambata) and armed banditry, particularly in North Darfur because; many parts of the area are isolated, which are uninhabited. (UNDP, 2002 and Jonathan,1975). Other causes of conflicts; These include the redrawing of political boundaries, population growth, dissolution of governance structures. (FAO, 2005).

The years of intense fighting from 2003 to 2007 caused displacement of IDPs, killing, destruction of assets and properties,(Young and Osman, 2006). The current conflict has been directly induced by successive tribal conflicts.

### **Conclusions and Outlook**

Conflicts are the main reasons for inadequate animal health services in the rural areas, makes changes in livestock diseases, number of animals, migratory routes, management system, and delivery of animal health services.

The study recommended that intervention should be made in order to improve animal health delivery systems, restocking of animals, emergency fodder, veterinary drug supply. Training of Community Animal Health Workers (CAHWs),dispensed of water sources, vaccination campaigns.

### **References**

- 1- Buchanan-Smith, M. (2005). Update analysis of food and livelihood security in north Darfur, study for WFP, pp. 15-22.
- 2- Catley, A and Meriner, J. (2002). Participatory approach to Veterinary Institute for Environmental Development, Issue paper No.110. pp. 6-9.
- 3- Elsamania,O.M(1997). Livestock Program Evaluation for Sudan for Oxfam.
- 4- FAO (2005). FAO and Elfashir veterinary Dept. Coordination workshop [www.fao.org](http://www.fao.org).
- 5- Jonathan .H, J. (1975). The pastoral system of Miedob, Thesis for PhD, University of Khartoum, Faculty of Art, pp,100-150.
- 6- Ministry of Animal Resources and Fisheries (North Darfur state),(2008) Annual report.
- 7- PACE, (2003) Annual Report.
- 8- UNDP (2002). Tow [www.undp.org](http://www.undp.org) ards a UNDP Peace Building Strategy in the Sudan. (Internal memo), pp. 20-22. [www.undp.org](http://www.undp.org).
- 9- WFP (2006). North Darfur Livelihood Assessments. [www.wfp.org](http://www.wfp.org).
- 10- Young, H. and Osman, A. (2006). Challenges to peace and recovery in Darfur, Feinstein International Famine Centre, USA, 78-90.
- 11- Young, H., and Osman, A. (2005): Livelihood under seige for Feinstein International Famine Centre, Tufts and Ahfad University, Sudan, pp. 13-25.