

Zoonoses, Neglected Community and Poverty (The Connected Scenario)

Hind Mohamed Abushama*

Department of Zoology, Faculty of Science, University of Khartoum, P.O.Box 321 Khartoum, Sudan

The effect of zoonoses (diseases transmitted between animals and human) has a significant impact on neglected community who lack access to basic local services and with high risk of food insecurity. Pastoralist communities are one of the major neglected communities that are at risk of infection. They are the ones subjected to the daily burden of zoonoses, as are their animals on which they are often totally dependent for cash, animal protein and as core assets. Those communities are mainly nomadic and dependent on livestock for their livelihood. Zoonotic diseases are the major factor for losses in livestock production [1] and which also threaten the human life. For example protozoan parasitic diseases (e.g. trypanosomiasis, coccidiosis), disease caused by helminth pathogens (e.g. liver flukes, Cysticercosis), bacterial diseases (e.g. brucellosis, leptospirosis, and anthrax) and viral zoonotic diseases (e.g. rabies, rift valley fever) and several others can accidentally infect humans [2]. The scope of incidence is high for Cysticercosis has reached 84.7%. Trypanosomiasis has shown a degree of severity up to 75% and together with Cysticercosis have shown to affect the domestic animals of great value to the poor households [3]. Livestock play a prominent role in economic, social and cultural relationships for pastoralist communities. Livestock is a vital source of financial assets for the rural poor and often the only form of savings available. It has been estimated that more than 70 percent of the rural poor depend on livestock. An estimated 600 million poor people, including 150 million landless poor, own livestock [4-6]. Livestock provide a critical reserve against emergencies and decrease exposure to financial risks like ill health, crop failures, and other emergencies at the levels of the family community or region. Moreover, livestock animals serve as means of transportation, as store of wealth, meet social obligations like marriage as in Southern Sudan [5]. In general, livestock contribute to subsistence, directly through milk and meat consumption or indirectly to exchange via sales to generate cash providing an insurance against disaster [7]. Despite of all this perceived wealth the livestock keepers are generally living below \$1 per day (hence in the extremely poor category) as measured by the proportion of Livestock Development population which is the percentage of the population living on less than \$1.08 a day at 1993 international prices, with each income unit of the population weighted by the share of livestock income in total income [8]. Zoonoses also have a double effect: first, on the livestock and their production, and second on human health. The neglected community becomes more poorer due to concerns identified in the Horn of Africa communities [9] such as lack of awareness of the transmission of the zoonotic diseases, inadequate accurate disease burden estimates [1], poor animal health services and lack of access to these services [10], Lack of communication and integration between relevant sectors, lack of technologies related to livestock production, processing and marketing [11], lack of access to interventions for these communities and conflict over limited resources. Taking Sudan as an example of the countries affected by zoonotic diseases and in which nomads form a recognizable part of its population (about 10 percent according to the last census in 1993), the administration of animal health and epidemics control in Sudanese Ministry of Animal and Fisheries resources has established a national plan (personnel communication). The plan demonstrates priorities towards control of zoonotic diseases and vital

steps towards alleviated suffer from the nomadic community. Some of these priorities could be summarized as:

1. Precise follow up of reporting and communication like in cases of sheep smallpox and small ruminants plague (PPR).
2. Extensive serological tests in ten states as part of epidemic survey program.
3. A plan for Intensive vaccination especially for exported animals, through this approach Rinderpest has been eradicated from Sudan since 1992 with aid of the PARC African Project for Control of Rinderpest.
4. Compensation of the farmer or farm owner for the loss of condemned animals.
5. Organize and control the movement of animals between Sudan and neighboring countries by activation and secure the cross points.
6. Availability of mobile veterinary services units equipped with laboratory and refrigerator with reasonable prices on the route of nomads. For example Misyria tribes in Sudan move to Kordofan State (western Sudan) in the beginning of autumn and to Alwihda State (Southern Sudan) at the end of the season. Accordingly mobile veterinary services are available in the two states; Kordofan State and Alwihda State during that time with a rate of 0.2 \$ service for the animal.
7. Intensive veterinary awareness through wall posters, Video and TV.
8. Introducing of innovations such as GPS system which found to be very useful in fieldwork in Sudan. Such technologies will be useful to respond to reporting of cases in remote areas. With no doubt any contribution towards improving the quality of the above concerns will be considered as vital steps towards poverty alleviation in communities affiliated by zoonotic diseases.

References

1. Molyneux D, Hallaj Z, Keusch GT, McManus DP, Ngowi H, et al. (2011) Zoonoses and marginalised infectious diseases of poverty: Where do we stand? *Parasit Vectors* 4: 106.

*Corresponding author: Hind Mohamed Abushama, Department of Zoology, Faculty of Science, University of Khartoum, P.O.Box 321 Khartoum, Sudan, E-mail: hindabushama@hotmail.com; hindabushama@uofk.edu

Received February 21, 2013; Accepted may 22, 2013; Published June 03, 2013

Citation: Abushama HM (2013) Zoonoses, Neglected Community and Poverty (The Connected Scenario). *Air Water Borne Diseases* 2: 106. doi:10.4172/2167-7719.1000106

Copyright: © 2013 Abushama HM. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

2. World Health Organization, ICONZ - Integrated control of neglected zoonotic diseases, United Kingdom. Dept for International Development Research in Use (2011) The control of neglected zoonotic diseases : community based interventions for NZDs prevention and control : report of the third conference organized with ICONZ, DFID-RiU, SOS, EU, TDR and FAO with the participation of ILRI and OIE : 23 - 24 November 2010, WHO Headquarters, Geneva, Switzerland, Geneva: World Health Organization, Geneva, Switzerland.
3. Perry BD, Randolph TF, McDermott JJ, Sones KR, Thornton PK (2002) Investing in Animal Health Research to Alleviate Poverty, ed. I.L.R. Institute. Nairobi: International Livestock Research Institute (ILRI), Nairobi, Kenya.
4. Delgado C, Rosegrant M, Steinfeld H, Ehui S, Courbois C (1999) Livestock to 2020: The Next Food Revolution. International Food Policy Research Institute: Washington, D.C.
5. IFAD, DIDA, World Bank (2004) Livestock Services and the Poor: A Global Initiative. Collecting, Coordinating and Sharing Experiences, International Fund for Agricultural Development: Rome.
6. Thornton PK, Kruska RL, Henninger N, Kristjanson PM, Reid RS (2002) Mapping Poverty and Livestock in the Developing World. International Livestock Research Institute: Nairobi, Kenya.
7. Otte MJ, Chilonda P (2002) Cattle and Small Ruminant Production Systems in Sub-Saharan Africa. A systematic review. Food and Agriculture Organization of the United Nations, Rome, Italy.
8. Elbers C, Lanjouw JO, Lanjouw P (2003) Micro-level estimation of poverty and inequality. *Econometrica* 71: 355-364.
9. Jaspars S (2006) Support for primary production. *Field Exchange*, Special Supplement 3: 45.
10. Winrock international (1992) Assessment of Agriculture in Sub-Saharan Africa. Winrock International: Morrilton, Arkansas: 126.
11. Aklilu Y (2002) An Audit of the Livestock Marketing Status in Kenya, Ethiopia and Sudan. Community Based Animal Health and Participatory, Epidemiology Unit (CAPE), Pan African Programme for the control of Epizootics (PACE), Organisation of African Unity/ Interafrican Bureau for Animal Resources (AU-IBAR): Nairobi, Kenya.

Citation: Abushama HM (2013) Zoonoses, Neglected Community and Poverty (The Connected Scenario). Air Water Borne Diseases 2: 106.
doi:[10.4172/2167-7719.1000106](https://doi.org/10.4172/2167-7719.1000106)

Submit your next manuscript and get advantages of OMICS Group submissions

Unique features:

- User friendly/feasible website-translation of your paper to 50 world's leading languages
- Audio Version of published paper
- Digital articles to share and explore

Special features:

- 250 Open Access Journals
- 20,000 editorial team
- 21 days rapid review process
- Quality and quick editorial, review and publication processing
- Indexing at PubMed (partial), Scopus, DOAJ, EBSCO, Index Copernicus and Google Scholar etc
- Sharing Option: Social Networking Enabled
- Authors, Reviewers and Editors rewarded with online Scientific Credits
- Better discount for your subsequent articles

Submit your manuscript at: <http://www.omicsonline.org/submission>