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## Socio-economic Aspects of Brucellosis in Kuku Dairy Scheme

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### Abstract

Animal diseases act as environmental hazard. Brucellosis is one of the major zoonotic diseases in the world. Human health and welfare depend on the disease situation in animal population. Management and control of this disease contributes to a large extent to sustainable development of animal as well as human resources.

This work aims to highlight the socioeconomic of this disease in Kuku Dairy Scheme - Khartoum State - Sudan. Hence the importance of its control.

The current situation of the disease in both animal and human was determined during 2004. The evolution of the disease was projected up to 2014. Accordingly the cost and the burden of the disease were estimated in two scenarios, in the first one animal growth rate was estimated according to the existing parameters. In the second scenario the number of animals was held constant. The prevalence rate was found to be 24.9% and 11.3% for animals and humans respectively. The total cost of the disease in both dairy and health sectors was found to be 67 126 953.8 SD equivalent to 268 507.8 US\$

In the baseline year the burden of the disease was found to be 7.1 and 14.1 DALYs if the disease is associated with 0.1 and 0.2 disability weight respectively.

The total cost of the disease was found to be 1 022 123 020 SD (745 547 286 SD in PV) equivalent to (4 088 492.08 US\$) over the 11 years period (2004–2014) in the first scenario. The total loss of healthy years during this period will account to 52.6 years (0.1 DW). And 105.2 years (0.2 DW).

In the second Scenario the total cost of the disease in both dairy and health sectors was found to be 1 414 827 570 SD (101 505 075 in PV) equivalent to 5 655 170.142 US\$ over the 11 years period. The total loss of healthy years over the 11 years will account to 82.1 years (0.1 DW). And 164.1 years (0.2 DW). Most of the producers (80%) are well informed about the disease and its zoonotic nature, (53%) are well acquainted with the economic importance of the disease. All of them support the idea of disease control.

**Keywords:** Brucellosis, economic analysis, Kuku Scheme