

The use of participatory epidemiology to determine the Prevalence rate and economic impacts of ppr and ccpp in Turkana county of Kenya

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Abstract

Participatory epidemiological Research was conducted in Turkana to identify the two most important livestock diseases, and then characterize their incidence and the economic impact. The study was carried out between 12th to 26th September 2011. Semi-structured interviews, guided by checklists were completed with groups of respondents in each of the 16 randomly selected villages (adakars) to collect data on livestock diseases and their impact on the livelihood of the people. Simple ranking techniques, proportional piling exercises and matrix scoring methods were used to collect data on the importance of the diseases identified. Matrix scoring of clinical signs was used to correlate the disease terms provided by the respondents in local language with the scientific names. The research focused on Lomooch or peste des petit ruminants (PPR) and Loukoi or contagious caprine pleuropneumonia (CCPP). Disease impact matrix scoring (DIMS) was used to correlate the diseases to the economic losses, while participatory mapping, time lines and seasonal calendars were used describe the spatial and seasonal distribution of the diseases. Transect drives was used to collect data on the pasture conditions. Lomooch (peste des petits ruminants) was reported to occur in outbreaks with a median morbidity of 65% and a range of 25% to 90% and a case fatality rate median and range of 95% and 75, to 100% respectively. Loukoi (CCPP) on the other hand was described to be an endemic disease known by the community for a long time and had a median morbidity rate of 50% (with range of 39 to 75% and a median and range case fatality rate of 62% and 40 to 85%, respectively). These losses led to reduced income and food insecurity at the household levels. The biggest challenge to livestock farming (which contributed to 75% of the livelihood) was recurrent drought, insecurity and diseases, with CCPP and PPR being considered as having the largest impact. Respondents indicated that these challenges have made people worse off than they were 20 and 10 years ago and more reliant on external food aid.

Keywords: CCPP, Participatory epidemiology, PPR, Small ruminants, Turkana.