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## Participatory Assessment of Incidence and Perception of Bovine Trypanosomosis by Cattle Farmers in Dano, Western Ethiopia

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### Abstract

Indigenous cattle contribute greatly to food security and livelihoods of farmers in marginal environments. In Dano, a small village in western Ethiopia, inhabited by small-scale cattle keepers, strengthening farmers' skills to manage their animals will significantly improve their livelihoods and reduce poverty. In a PRA survey, cattle keepers in Dano mentioned trypanosomosis as major problem in animal husbandry. This study analyses trypanosomosis prevalence and indigenous practices to manage trypanosomosis and other relevant diseases. Sixty-three farmers were interviewed about common cattle diseases, their prevalence and farmers' management practices to cope with those diseases, by applying standardised questionnaires. Two hundred eighty-four cattle were blood-tested for trypanosomosis detection, using buffy coat technique, and eighty-eight farmers were chosen to provide information about their identification of apparently sick cattle in a participatory practical unit. Overall trypanosomosis prevalence among the cattle herds was found to be 14.5%. Farmers identified infected cattle by hair loss, diarrhea and weakness; they believed transmission occurred mainly through physical contact with infected animals (49%) and by unknown reason (33%). Six percent of farmers knew about the linkage between tsetse flies and trypanosomosis. Modern and local drugs were used to treat trypanosomosis infected cattle, the strategies for local treatment followed methods like branding and the usage of herbs. From the eighty-eight apparently sick cattle which were blood-tested for trypanosomosis infection, 29.5% were trypanosomosis positive and 75% had PCV below 26. The farmers seemed to lack basic knowledge about disease management but showed strong interest in participating in health improvement actions; - 92% - of them were willing to contribute labour and money according to community agreements for trypanosomosis eradication efforts. Potential future research and development approaches which aim to control cattle diseases, especially trypanosomosis, are presented in the study, focusing on approaches which fit into the whole background of incentives to farmers, their behaviour, and understanding of animal health issues. The aim of those efforts is to sustainably improve Dano farmers' cattle keeping skills, leading to a better utilisation of their local animal genetic resources.

**Keywords:** Community-based management, disease management, indigenous knowledge, tsetse fly

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