



Study on the impact and control of disease of tethered goats in Morogoro Region, Tanzania

Status: Completed

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Commitment: 70,510 GBP

Implementing agency: DFID - Policy Division (PD) formerly DFID - Rural Livelihoods Department (RLD)

DFID Programme: Animal Health Programme Animal Health Programme

Countries: Tanzania

About the project:

Purpose:

To study and characterise the various systems of goat keeping practised by small-holder farmers and pastoralists in the Morogoro area, to define the current levels of goat productivity and to identify the most important health problems in relation to other factors affecting the goats within those systems.

To determine the impact of internal parasites as a constraint to the productivity of goats within the different management systems and eco-climatic zones and to establish the importance of such parasites in relation to other disease conditions and husbandry practices.

To undertake a small-scale anthelmintic trial to assess the production and economic benefits of controlling internal parasites.

To produce a set of goat health management guidelines, based on project findings, that will provide extension advice on improved goat health management practice.

Background:

The Goat Health project is supporting a study of the health constraints to the productivity of goats in Morogoro area of Tanzania. Tanzania has an estimated 8.5 million goats, that are kept primarily by small-farmer systems, particularly poor farmers and women, has been receiving increasing recognition. Goats are a source of meat, milk, skins and cash as well as having important religious and social functions. There has been a limited number of studies on animal health constraints affecting goat production in rural areas which highlighted the importance of such factors as helminthosis, ectoparasites and various infectious diseases. Area specific investigations, such as the Morogoro study, are required to establish the nature and the extent of health problems in local goat flocks as a prerequisite to the design of control strategies tailored to the needs of the area.

Outputs

Actual outputs:

- A survey of management systems in Morogoro District, monitoring the productive performance of small ruminants in the area.
- An epidemiological survey of gastro-intestinal parasites Mgeta and Mlali Divisions.
- A study of other disease conditions in Mgeta and Mlali Divisions. Please refer to the technical report for a full breakdown of the research findings of this project.
- Some of the data collected under this project has been successfully presented by the author for the award of an MPhil degree by the University of Edinburgh. The title of the thesis is 'Management Systems and Health Problems of Goats in Morogoro District, Tanzania'. The findings are also given in the technical report of the same title.
- The information gained by this study will be used to plan extension programmes relevant to the area. Assuming that the recommendations given are adhered to, there is a great potential for increased productivity of goats in these areas. Furthermore, the information gathered under this study can be used by farmers in other parts of the country with similar farming systems. The effects of sub-clinical helminthoses and coccidiosis on the productive performance of goats was not fully investigated under this study

because the level of infection with helminths and coccidia in goats of the area was not known at the beginning of the study, because no epidemiological studies had been carried out previously. However, the treatment trials conducted in small-holder herds in Mgeta, the Taji and Melela herds have indicated that anthelmintic treatment can result in better body condition scores and weight gains. Since mixed nematode and coccidia infections are common, it would be of practical importance to quantify the synergistic pathogenic effects on animals by carrying out treatment trials with both anthelmintics and coccidiostats.

Conclusions

- The outputs of this project contribute to the development goals of DFID's NR research strategy, as the information gathered has provided an understanding of production constraints to goats in Mgeta and Mlali Divisions, and thus provided the livestock services, extension agents and small ruminant owners with a background on management actions to increase productivity. The recommendations given (if properly implemented) may result in improvement in the productivity of small ruminants in the region and therefore increase the contribution which those animals make to the household economy of the people in the area.

Publications:

- KUSILUKA, L.J.M., MATTHEWMAN, R.W., KAMBARAGE, D. M., DABORN, C.J. AND HARRISON, L.J.S. (1994). Study of disease problems of goats kept under different systems of management in Mlali and Mgeta villages - Morogoro region. Proceedings of the 11th Tanzanian Veterinary Association Annual Scientific Conference. Arusha. Tanzania. December 1993.
- Kusiluka LJM and Kambarage DM (1996). Diseases of small ruminants in sub Saharan Africa: A Handbook. VetAid, ISBN 09522299 5 1.
- Kusiluka LJM, Kambarage DM, Harrison LJS, Matthewman RW and Daborn CJ. (1994). Epidemiology of gastro-intestinal helminths in goats under different systems of management, Morogoro District, Tanzania. Paper presented at the 12th Tanzania

Veterinary Association Scientific Conference, 29 November - 3 December 1994, Arusha, Tanzania.

- Kusiluka LJM, Kambarage DM, Harrison LJS, Matthewman RW and Daborn CJ (1995). Gastro-intestinal helminths of goats and sheep in Tanzania. *Tanzanian Veterinary Bulletin*, 15:3.
- Kusiluka LJM, Kambarage DM, Harrison LJS, Matthewman RW and Daborn CJ (1995). Coccidiosis of goats and sheep in Tanzania. (in press).
- Kusiluka LJM, Kambarage DM, Matthewman RW, Daborn CJ and Harrison LJS. (1995). Prevalence of ectoparasites of goats in Tanzania. *Journal of Applied Animal Research*, 7, 69-74.
- Kusiluka LJM, Kambarage DM, Matthewman RW, Daborn CJ and Harrison LJS. (1995). Causes of condemnation of carcasses and organs in goats in Tanzania. *Journal of Applied Animal Research*, 7.

Other dissemination:

- Extension leaflets on recommendations to improve management systems and control of diseases, aimed at goat keepers and extension staff in Mgeta and Mlali Divisions. These leaflets are written in Kiswahili.
- Handbook on diseases of small ruminants in sub-Saharan Africa for use by veterinary extension staff in Tanzania and other countries.

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