

## **2 OVERALL OBJECTIVE**

The overall objective of this study was to identify and assess the disease risk factors constraining cattle production in western Kenya, through a cross-sectional and a longitudinal survey and recommend suitable intervention strategies.

### **2.1 Specific objectives (cross-sectional study)**

1. Seek information on livestock husbandry practices and disease management by administration of a questionnaire to farmers.
2. Determine trypanosome prevalence in cattle with regard to age, sex, location, husbandry practices and apparent tsetse density.
3. Determine the level of exposure of cattle to anaplasmosis, babesiosis and East Coast fever (ECF).
4. Assess the worm burden in calves through determination of faecal egg counts (FEC).

### **2.2 Specific objectives (longitudinal study)**

1. Assess the risk of trypanosomosis with regard to tsetse relative density, infection rates and trypanosome incidence in cattle.
2. Assess the effect of single/concurrent trypanosome, TBDs and helminth infection in cattle over time.
3. Assess the impact of trypanosomosis, helminthosis and TBDs in cattle with regard to age, breed and production parameters (milk, body weight and reproductive health indicators).
4. Assess the importance of single or combined isometamidium chloride and anthelmintic treatment in cattle.