



The ECAISA Pilot Project

Towards the establishment of an Animal Census in the Eastern Cape, South Africa



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1. Introduction

In 2005, some provinces of South Africa (the Eastern Cape among others) faced an outbreak of Classical Swine Fever. This is an OIE listed disease absent from the country since 1918 (Sandvik et al, 2005. Classical swine fever in South Africa after 87 years' absence. Vet Rec 157, 267).

The outbreak uncovered the **need of accurate and up to date animal numbers for the Province** and the whole country.



Adapted from original in <http://www.demarcation.org.za/>

ECAISA, the **E**astern **C**ape **A**nimal **I**nformation **S**ystem **A**mathole was set up as a pilot study to improve the information sources and methods to conduct an animal census.

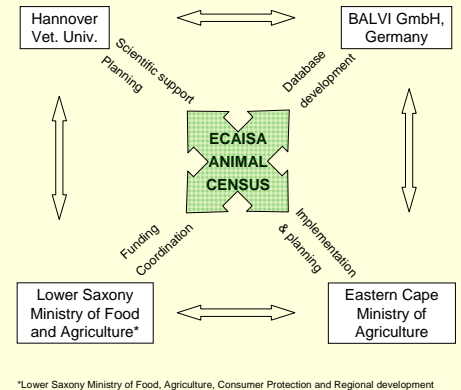
The study area is indicated by red arrows, one for each study ward.

2. Partners

The ECAISA project is supported mainly by 4 organizations including a university, governments and a private company.

Other agencies are gradually joining these efforts due to its transcendence for the region.

This cooperation agreement ensures funding for three years up until mid 2010.



*Lower Saxony Ministry of Food, Agriculture, Consumer Protection and Regional development

3. Animal populations & information sources

There are five animal population groups in the Eastern Cape. Most of them can be reached through questionnaires.

Animal population	Main species	Information source examples
Commercial	Cattle, sheep, poultry, pigs.	Slaughterhouses, sale pens.
Communal	Cattle, sheep, goats.	Dipping tanks, shearing sheds.
Villages	Dogs, cats, poultry.	Community centers, schools.
Game	Elephants, zebras, lions.	Game reserves and ranches.
Wildlife	Bush and wild pigs.	Capture-recapture, area sampling.



ECAISA pilot census field work during February 2008 in the Mbashe and Great Kei Local Municipalities; Eastern Cape, South Africa.

4. Objectives

Is the sampling approach more precise than the complete enumeration approach?

With this purpose a complete enumeration census was done in two areas (see map). The information obtained was used as gold standard to assess the error to be obtained later through sampling approaches. The census produced 2300 questionnaires from approximately 5 villages in each study area.

The evaluation will be done mainly by comparing the larger logistic error of a complete enumeration census vs. the sampling and logistic error of a sampling survey census.

Error calculations will be combined with:

- Logistic and resource needs
- Time requirements

5. Questionnaires

Questionnaire characteristics

- Farms and Farmers information
- Animal Information
 - Age - Gender groups
 - Use and Purpose
 - Sanitary Status

Also, these questionnaires are:

- For communal and commercial areas
- Must be completed by trained data collectors
- Consist of 8 pages and considers approximately 12 species

Cattle section of the ECAISA pilot census questionnaire

6. Complete enumeration vs. survey sampling

Sampling Strategy 1:

One-stage Stratified Random Sampling

- Sample of villages
- Complete enumeration of households and farms

Sampling Strategy 2:

Two-stage Stratified Random Sampling

- Sample of villages
- Sample of households and farms

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