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.



ECAISA, the Eastern Cape Animal Information System Amathole 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.

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 | A Standard | Cattle, sheep, poultry, pigs. | Slaughterhouses, sale pens. |
| Communal | - Carport and a const | Cattle, sheep, goats. | Dipping tanks, shearing sheds. |
| Villages | 5 8 51 | Dogs, cats, poultry. | Community centers, schools. |
| Game | an section | Elephants, zebras, lions. | Game reserves and ranches. |
| Wildlife | | Bush and wild pigs. | Capture-recapture, area sampling. |

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

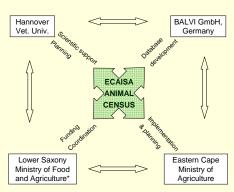
| CATTLE CENSUS | | | | |
|---|--|--|--|--|
| | | | | |
| A DIPTANK IDENTIFICATION - CATTLE | | | | |
| OWNER NUMBER AS PER DIPTAIN ID NO | | | | |
| NAME SECTION | | | | |
| IS THIS DIPTAINK USED REGILARLY2 IS NO. | | | | |
| 2 PROJECT DETAILS - CATTLE | | | | |
| DO YOU PARTICIPATE IN ANY CATTLE PRODUCTION PROJECT 2 IF YES : | | | | |
| PROJECTIO | | | | |
| PROJECTINAME | | | | |
| PROJECT LEADER/ DRIMER (Hg. DEPT) | | | | |
| 3. ANIMAL BETAILS - CATTLE | | | | |
| TOTAL NO OF CATTLE OWNED | | | | |
| MIMBER OF ANNALS PER CATEGORY | | | | |
| GENDER AGE: EREED: TYPE OF USE: | | | | |
| EULL HOLSTEIN FRIESLAN MEAT | | | | |
| OK JERSEY GUERNSEY MILK | | | | |
| NONE DAG TON | | | | |
| CALL EDISMARA TRADITIONAL | | | | |
| PNZGAUER | | | | |
| OTHER2 OTHER2 | | | | |
| | | | | |
| 4. FARMING RELATED QUESTIONS ANSWERED BY FARMERIOWNER | | | | |
| HARE TO BOTHE DEGALES WRITTED TO IR OFFICE DIRING THE LAST IS MORPHY. | | | | |
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| Here wer of noun cettue uper comprise during the user to up and the second here | | | | |
| VRONK PROVPTIES WHETED YOUR ORTHODORIE THE LAST IS MORENT | | | | |
| NAK CONDITIONS LIKE VELETING THEM ANTIGETED YOUR CHETLED LYING THE LAST | | | | |
| ED VISUANETICANTE IN ANY THEE / LANETOCK INFROMENTIC COMMUNITY FRIGHTS | | | | |
| COMOR: | | | | |
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| and remaining the Cartle | | | | |
| Cattle section of the ECAISA | | | | |
| nilot conque questionneire | | | | |
| pilot census questionnaire | | | | |

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.



er Saxony Ministry of Food, Agriculture, Consumer Protection and Regional development



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

6. Complete enumeration vs. survey sampling

| Sampling Strategy 1: | Sampling Strategy 2: | |
|-----------------------------|-----------------------------|--|
| One-stage Stratified Random | Two-stage Stratified Random | |
| Sampling | Sampling | |
| Sample of villages | Sample of villages | |
| Complete enumeration of | Sample of households | |
| households and farms | and farms | |

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