

# Towards a Paradigm Shift in Livestock Production in Africa: Using the Potential of Neglected Animal Species



Institute for Tropical Agricultural Sciences (Hans-Ruthenberg-Institut) (490)  
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## 1. Background and objectives

Population growth and changing consumption patterns have resulted in an increasing demand for animal protein, especially in Sub-Saharan Africa leading to the intensified production of conventional livestock species. However, negative environmental, nutritional, gender-related and economic trade-offs associated with this increased production have made it necessary to explore the potentials of the following neglected livestock species;

1. Grasscutter (*Thryonomys swinderianus*)
2. Guinea fowl (*Numida meleagris*)
3. Guinea pig (*Cavia porcellus*)
4. Rabbit (*Oryctolagus cuniculus*)
5. Donkey (*Equus asinus*)

### Study objectives:

- ◆ Assess sustainable production of neglected species;
- ◆ Identify drivers and barriers to increasing production;
- ◆ Present policy solutions for increased and sustainable utilization.

## 2. Methods

A systematic literature review applying the checklist for "Preferred Reporting Items for Systematic Review and Meta-Analysis" (PRISMA).

And using Boolean search operators in academic search engines, 128 studies were selected for this review.

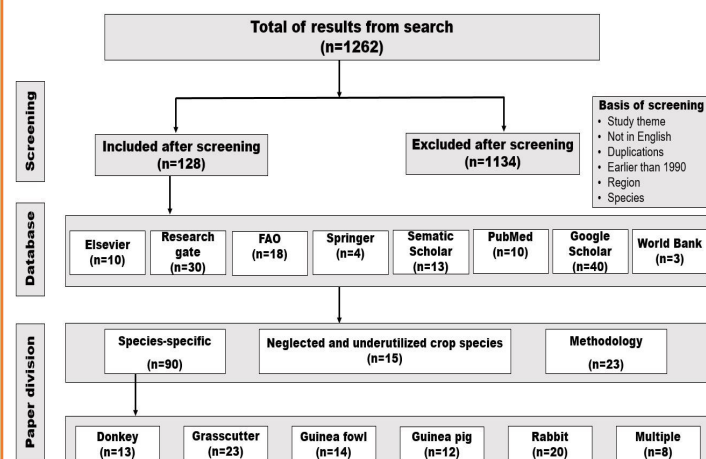
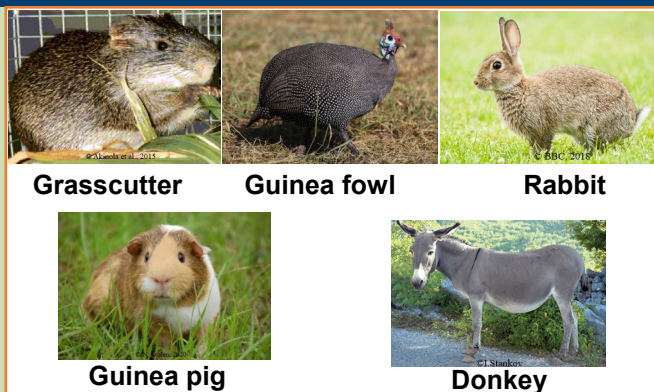


Figure 1: Literature selection process.



## 3. Results

### Drivers for promoting neglected livestock species:

- ◆ nutritional importance,
- ◆ high economic gross returns,
- ◆ environmental sustainability,
- ◆ importance for women's empowerment.

### Barriers to adoption of neglected livestock species:

- ◆ feed and nutrition,
- ◆ diseases and pests,
- ◆ inadequate markets,
- ◆ animal welfare issues,
- ◆ exclusion from policies and development strategies,
- ◆ lack of research and extension.

## 4. Recommendations

1. Recognition and integration of neglected livestock species and their roles in national livestock policies.
2. Dedicated research and development towards genetic improvement.
3. Awareness creation.
4. Strengthened value chains.

## 5. Conclusion

- ◆ Neglected livestock species have fewer negative trade-offs compared to conventional species.
- ◆ High and unexploited economic and nutritional potential is promising for sustainable livestock production.