Farmers’ Willingness to Conserve the Endangered Sheko Breed in Benchi Maji Zone, Ethiopia

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Introduction

• Sheko is one of the recognized Ethiopian cattle breed (Fig. 1)
• Stands out for its trypanotolerance and adaptation to environmental stressors
• One of Africa’s “Big Five” vintage cattle breeds with great potential to form the genetic backbone to cope with unpredictable future climate changes
• Currently the breed faces a clear risk of extinction

Study aim:
Assess farmers’ preferences for cattle attributes to support the establishment of cost-efficient conservation plans for the local Sheko breed

Conclusions

• Conservation strategies for Sheko cattle shall imply compensation payments of the farmers due to the breed’s unfavorable attributes.
• It is recommended to implement conservation strategies in the midland AEZ. In addition, strategies that reduce compensation costs such as improved veterinary services should be thought.

Materials

• Benchi Maji Zone, southwestern Ethiopia
• 12 kebeles in 3 districts (Sheko, Semein Benchi, Debub Benchi)
• Two agro-ecological zones (AEZ): Midlands and lowlands
• 400 cattle keepers
• Selection criteria: at least 2 cattle breeds, > 18 years old

Methods

• Choice experiments (CE) with 6 choice sets (Fig. 2)
• 5 cattle attributes with 2 or 3 levels, including purchase price (Tab. 1)
• Conditional logit (CL) models: Willingness to pay (WTP) for attributes (overall, based on AEZ and socio-demographic characteristics)

Results

• Farmers strongly preferred cattle with high trypanotolerance, low feed requirement, low aggressiveness, and good milk production (Tab. 2)
• Adaptability, esp. trypanotolerance, and also behavioral traits are more highly valued than performance traits (Tab. 2)

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