LIVESTOCK BIODIVERSITY, INDIGENOUS KNOWLEDGE AND INTELLECTUAL PROPERTY RIGHTS

Bellagio - Italy, 27 March - 2 April, 2006
EXPERIENCES OF TRYING TO UNDERSTAND BREEDERS’ KNOWLEDGE
Project Sponsor

• “Improving the Livelihoods of Poor Livestock-keepers in Africa through Community-Based Management of Indigenous Farm Animal Genetic Resources”- International Livestock Research/BMZ/Göttingen/Hohenheim Project
Research Projects

- Mr. Isacko Tura: “Herd History & Social Neteworsk” - Egerton University
- Immaculate OMONDI and Gentrix JUMA: “Market Organization and Consumer Preferences”
Herding and the Naming System of Small Ruminants by the Pastoralist Rendille Community of Northern Kenya

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Dep’t of Animal Sciences, Egerton University
Real livestock numbers are probably underestimated.
Small ruminants belong to different household members (non-pooled resource)

Kosgey, 2004

Kiwuwa, 1992
Potential threats to local breeds

- Poor characterisation of breeds
- No breeding programme for local breeds
- Poor implementation of livestock related policies
- Diseases and parasites
- Insecurity
- Cognitive process
Breeding decisions
Breeding management
Social mechanisms
Cultural identity and rules
Cognitive processes

Justification
Objective

The overall objective of this study was to analyse the pastoral Rendille small ruminant management and goat naming system
• Material and methods
Study area

- Research site: Marsabit (Rendille)
- Location was selected on the basis of:
  - Predominance of sheep and goats.
  - Accessibility.
  - Effective village authority system.
  - Sheep and goats are seen as priority species by farmers.
Variables

- Detailed survey using a set of questionnaires.
- Selected 30 herders & randomly sample 574 animals from them for the work.
  - marks and features used to differentiate between and within populations
  - Flock size and structures
  - Breeds and trait preferences
  - Age and sex classes
Analysis

• Information gathered through survey analysed
• Immediate feedback workshop to farmers contacted
• Statistical analysis (excel, access and SPSS statistical software)
Results

Mixed flock herding technique
<table>
<thead>
<tr>
<th>Animal Class</th>
<th>Rendille Sheep</th>
<th>Rendille Goats</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very young pre-weaned</td>
<td>Lukuo Kunini</td>
<td>Lukuo Kunini</td>
</tr>
<tr>
<td>Middle aged pre-weaned</td>
<td>Lukuo Puusi</td>
<td>Kotiti</td>
</tr>
<tr>
<td>Old pre-weaners</td>
<td>Lukuo Botoro</td>
<td>Lukuo Botoro</td>
</tr>
<tr>
<td>Weaners</td>
<td>Guus</td>
<td>Karat</td>
</tr>
<tr>
<td>Sub-adult female</td>
<td>Sipen/Leeker</td>
<td>Sipen/Lekinne</td>
</tr>
<tr>
<td>Mature females</td>
<td>Riiyo</td>
<td>Onno</td>
</tr>
<tr>
<td>Sub-adult males (Uncastrated)</td>
<td>Lepukutorege</td>
<td>Lepukutorege</td>
</tr>
<tr>
<td>Castrates/Wethers</td>
<td>1st Grade: Loro Lentare Uni Ilarecha</td>
<td>Loro lentare</td>
</tr>
<tr>
<td></td>
<td>2nd Grade: Lorolesipen</td>
<td>Lorolesipen</td>
</tr>
<tr>
<td></td>
<td>3rd Grade: Loro lentare tare</td>
<td>Loro lentare tare</td>
</tr>
<tr>
<td>Bucks/Rams</td>
<td>Lmerigesh</td>
<td>Orgei</td>
</tr>
</tbody>
</table>
Cognitive processes

• Classificatory and descriptive naming system

• Branding

• Ear notching
Branding in progress
Conclusion

• The mixed herding technique is effective and well adapted to the fragile environments.
• Pastoralists able to identify their animals fully (>90% chance)!
• HNS facilitates exchange of information about goats- essential in setting up community-based breeding organizations (CBO’s)
Acknowledgements

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Thank you for your attention