

OP-188 [Beekeeping for Rural Development] Beekeeping and Forest Conservation

Robert Nil Mutisi

Department of Agriculture, Zimbabwe Open University, Harare, Zimbabwe

Globally honeybees are found to be associated with forests. Various tree species found in the forests provide bee forage and physically provide shelter for bee colonies and beehives. Forest conservation and beekeeping has a long-lasting relationship globally. The combination of beekeeping and forest conservation provides annual bee products to supplement income for communities. Tree growing and beekeeping can easily be combined since they are activities that enhance ecosystem restoration and community livelihoods. High rate of deforestation, veldt fires, land degradation and poaching threaten the forest landscape. Makoni is a representative district for this study, and this is one of the biggest tobacco growers in the country with sources of fuel for its curing coming from the indigenous woodlands within the district. This has reduced the forage base for bees and has affected honey production as most of the bee friendly species such as the *Brachystegia* and *Julbernardia* which are indiscriminately cut for fuel. It is from this background that a study was conducted. Through random selection a total of 50 respondents were picked, 25 from each of the two purposively selected localities where the size of area under tobacco, beekeeping activities and other livelihood options were considered. Semi-structured questionnaire, field observation and interviews with key informants were used to generate data. Presentation of data was done using tables. Different categories and themes were used to analyse the data. The study revealed that most respondents, 80% cut down trees for various uses and aim at clearing those that are bee friendly. Lack of forest protection, control of resource movement, proper forest management practices, access and ownership of resources remained poorly administered at local level where chiefs and other local leaders are in control. In conclusion, to reduce the identified threats interventions that promote sustainable livelihoods through beekeeping and tree growing be done under a community-led approach. This can provide an economic, social and environmental incentives that encourage communities to protect the forest and manage it sustainably. Beekeeping and forest conservation resonates well with Nature-based Beekeeping that embraces bee ecology and sustainable use of local resources to construct low cost-hives.

WORKING FOR BEES

APIMONDIA CONGRESS

27 September 2025

0915hrs to 0930hrs

BEEKEEPING AND FOREST CONSERVATION

BY

Dr Robert Mutisi

Team Lead - African Beekeeping Systems (RWG)



Introduction

1. Honeybees are associated with forests
2. Forests provide bee forage & shelter for bee colonies & hives
3. Beekeeping & trees have a positive global impact (food security, biodiversity & Sustainable development)
4. Beekeeping & Forest conservation has a long-lasting relationship which many people still understand estimate



Research question

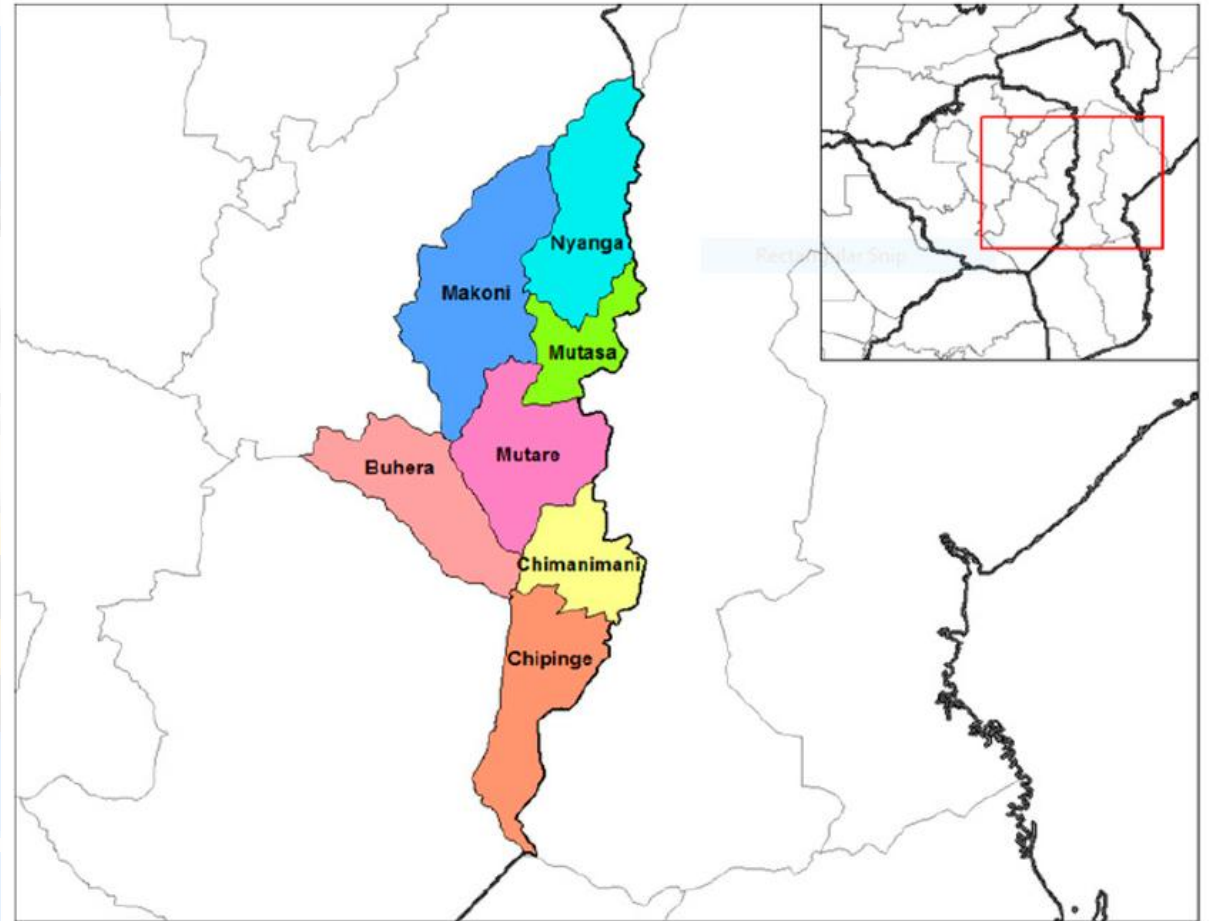
What is the contribution of beekeeping to forest conservation?



Study area

Makoni district of Manicaland Province

1. Largest district under tobacco
2. Existence of miombo woodlands
3. Beekeeping activities in the area
4. Forest loss- Deforestation:- charcoal, tobacco, land clearing for settlement & farming
5. High record of veldt fires
6. Land degradation-mining, brick moulding and sand extraction
7. Poaching: Timber and wildlife



Methodology

1. Mixed methods(Quali & Quant)
2. Two wards were purposively selected
3. 25 participants with 10 women from each wards were randomly selected (n=50)
4. Data generation was through semi-structured questionnaire, interviews with key informants and field observations
5. Data generated was presented as words and figures in tabular form
6. Analysis was done descriptively and thematically



Findings

Percentage %	Narration of responses
A . 80	Destruction of Brachystegia and Julbernardia species
B. 90	Brick molding causing forest loss
C. 40	Charcoal production causing forest loss
D. 100	Forest fires causing forest loss
E. 100	Tobacco curing causing forest loss
F. 100	Practice beekeeping in the forest



Findings cont.

Percentage %	Narration of responses
G. 80	Women now go far to fetch firewood
H. 96	Forest is a major source of livelihoods
I. 60	Have little knowledge to protect the forest
J. 64	Do not own land and have limited access to it
K. 60	Hardly find wild fruits in the forest
L. 56	Lack fire management skills and knowledge
M. 34	Mentioned Planting of trees have no



Discussion

1. Beekeeping and forestry provides annual honey products to generate income
2. Beekeeping and forestry improves community resilience, reduces vulnerability and enhanced capacity to handle shocks.
3. Bees play a major role on pollination and food security & biodiversity and ecosystems
4. Beekeeping connects to environmental stewardship.



Discussion cont.

5. Coming into the discussion is our Bees and Trees project in Zimbabwe being funded by BfD.

6. Women groups doing beekeeping and looking after the forest-(Participatory Sustainable Forest Management).

7. Nursery, planting, tending activities, fire management and finally getting benefits

8. Rural forestry & afforestation initiatives enhances agro-forestry, combat deforestation, woodland degrading and enhances bee forage and habitat



Matching findings and discussions

1. Findings A,B,C,D, E were associated with discussion points 3,5,6,7 & 8
2. Findings F & H were aligned to discussion points 1.2 & 3
3. Finding G was aligned to discussion points 4, 7 & 8
4. Findings I, J, K,L, & M were aligned to discussion points 7 & 8
5. Taking care of the forests is taking care of ourselves (Mr & Mrs Chinyanga)



Conclusion

1. Beekeeping contributes to rural livelihoods whilst simultaneously benefiting the environment (Bradbear, 2004)
2. Bees are linked to the health of the forests and other ecosystems (Fabricius, 2004)
3. Beekeepers who benefit from the forest are keen to take initiatives in conserving the forests
4. Beekeepers are usually strong advocates on issues related to forest conservation as they get bee products from the forests



Initiatives being taken

Training on raising of seedlings



Training on seedling planting



Initiatives being taken cont.

Fire guard constructed



Fire fighting



Initiatives being taken cont.

Spot weeded trees



Water berry trees growing



Recommendations

1. Beekeeping to be integrated into development and forest conservation programs
2. Empowering beekeepers to be strong advocates for forest conservation
3. Improve the interaction between Forestry and Beekeeping sector
4. Engaging in more afforestation programs
5. Intensifying extension services and training to both beekeepers and honey hunters on Forest conservation
6. Carry out fire pre-suppression activities & develop and equip community fire fighters with basic tools
7. A wholistic approach on Beekeeping & forest conservation awareness



What would be your best advice to a beekeeper who is looking after a forest and has started beekeeping with a bee colony nesting in the hollow of a *Brachystegia spiciformis*?

*Thank you
for Listening!*

