Professional Beekeeping in Africa - Challenges and Opportunities

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Concepts & themes

• Professional vs Commercial vs Small-scale
  – Professional – beekeeping is your business – full-time or close to full-time
  – Small-scale – bees make up < 50% of your income

• Extensive vs Intensive beekeeping

• Sustainable: self-sustainable, profitable

• Colony absconding / Improved production
Traditional African Beekeeping

• Much of it is small-scale
• Often in traditional hives
  – Not movable frames
  – Honey cannot be extracted
• Often extensive
  – No migration or movement of colonies
  – No feeding of bees
  – Colonies are relatively small
  – Bee population is at a natural level
Traditional Beekeeping: Advantages

• Lower level of disease & pests because of smaller colonies – bees manage better
Traditional Beekeeping: Advantages

- Lower level of disease & pest infection because colonies are dispersed
Traditional Beekeeping: Advantages

- Lower ‘stress’ levels on colonies as they are not moved
- Not exposed to pesticides and pollutants
Traditional Beekeeping: Advantages

- Colonies and their products are generally natural or pure or organic
- Can develop niche and boutique markets for these products
Traditional Beekeeping: Advantages

- Large amounts of wax and propolis can be produced
Traditional Beekeeping: Disadvantages

• Pest and disease management is more difficult, both for diagnosis and for treatment
Traditional Beekeeping: Disadvantages

- Hive management (replacement of old combs, swarm control, adding of honey chambers) is largely impossible, so it is difficult to get very productive colonies or very high production.
Traditional Beekeeping: Disadvantages

• Very difficult to use colonies for commercial pollination
Traditional Beekeeping: Disadvantages

- Cannot utilise multiple honey flows because the bees are not moved
Traditional Beekeeping: Disadvantages

- Often high levels of absconding in bad years, or at certain times of the year
- Naturally migratory bees
Traditional Beekeeping: Disadvantages

- Difficult to protect hives from theft and vandalism
Traditional Beekeeping: Disadvantages

- Honey is often not of the best quality
Professional Beekeeping

- Seeks to address these disadvantages
Professional Beekeeping

- Movable frames to inspect for disease
Professional Beekeeping

- Honey extraction, re-use of frames, and addition of honey chambers to increase production
Professional Beekeeping

- Colonies of bees are moved to exploit multiple forage resources, which increases production.
Professional Beekeeping

- Colonies may be used for commercial pollination which is now the majority income of most professional beekeepers
Professional Beekeeping

• Less absconding and starving colonies because they are fed when they need to be
Professional Beekeeping

- Better quality honey
But there are costs

• Epidemic disease levels
• Requiring regular medication
• Increasing pollination and pollutant stresses
• Increasing losses of colonies
And concern about a global bee crisis
Should we promote professional beekeeping in Africa?

• A cautious ‘Yes’
• Yes – because movable frames & movable colonies & extracted honey & better quality honey are necessary to generate profitable and sustainable beekeeper industries
• Yes – because the new pests and diseases in Africa will need management to deal with them
• Yes – because countries will need commercial pollination to grow their agriculture
• Yes – because beekeepers have to provide that pollination service
• Yes – because the best way to develop small-scale beekeeping is to develop professional beekeeping
But should learn from the current problems

• Keep the beekeeping as natural and extensive as possible
• Should feed bees only when absolutely necessary
• Should stay away from medication if at all possible
• Should keep apiaries small (pick-up size) and not dump colonies together
• Should make sure all colonies have extensive resting and natural phases, away from honey production and commercial pollination
• Should maintain the pure & organic advantage that African beekeepers presently have
A challenge and an opportunity for Africa

- To grow beekeeping in Africa by making it more modern and more professional
- Retaining the advantages of traditional African beekeeping