OP-191 [Beekeeping for Rural Development]
Beekeepers Restore the Forests of Kwahu Afram Plains of Ghana

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The forests of Kwahu Afram Plains in Ghana's Eastern Region are under severe threat due to inadequate management personnel, unsustainable exploitation, and destructive perennial dry-season bushfires. Valuable tree species such as Ceiba pentandra, Khaya ivorensis, and Milicia excelsa have become scarce, while rural communities, facing limited economic opportunities, rely heavily on natural resources for survival. Recognising the urgency of reversing forest loss while improving livelihoods, Bees for Development Ghana (BfDG) launched the Beekeepers Restore Forests initiative - an innovative community-driven approach that links nature-based beekeeping with forest conservation while improving their economic well-being.

By transforming honey hunters into trained nature-based beekeepers, the initiative creates economic incentives for communities to protect trees and restore degraded landscapes. Beekeepers understand that thriving forests provide essential bee forage, leading to higher honey yields and increased incomes. To strengthen this connection, BfDG has established a Honey and Beeswax Processing Centre in Donkorkrom, ensuring a reliable market for honey, which in turn motivates beekeepers to safeguard their apiaries and surrounding ecosystems.

Key project components include bushfire prevention training, tree planting to enhance floral diversity, and social enterprise development to improve market access. In 2024, beekeepers earned over £16,000 from selling about 12 tons of honeycombs, with many experiencing unprecedented financial stability. Beekeepers are shifting their perception of trees from charcoal sources to vital resources for honey production, reinforcing conservation efforts. The project promotes agroforestry systems where farmers plant nectar-rich trees alongside food crops, creating a win-win for biodiversity and livelihoods.

This intervention highlights how beekeeping serves as a powerful nature-based solution for both poverty alleviation and environmental restoration. By aligning economic benefits with conservation goals, the project is fostering a sustainable and resilient economy in Afram Plains, demonstrating the potential for replication across similar ecosystems. This presentation shares successes achieved and the transformative impact of beekeeping on rural livelihoods and biodiversity conservation. Key lessons learned include that access to a ready market is the strongest driver, and planting trees in a forested landscape is problematic when the drivers of forest loss are still active. Again, poor people need cash but also need financial literacy to achieve transformational change.

Beekeepers Restore the Forests of Kwahu Afram Plains of Ghana

Isaac Mbroh

Bees for Development Ghana

Introduction

- Forests in Kwahu Afram Plains face severe threats:
  - Lack of forest custodianship by local people
  - Unsustainable exploitation
  - Perennial bushfires
- Valuable tree species becoming scarce:
  - *Ceiba pentandra*
  - *Khaya ivorensis*
  - *Milicia excelsa*

Community Challenges

- Rural communities rely heavily on natural resources
- Limited economic opportunities
- Charcoal production driving deforestation
- Need for livelihood alternatives

The Initiative/Intervention

- Innovative, community-driven project
- Transforms honey hunters into nature-based beekeepers
- Creates economic incentives to conserve trees
- Links beekeeping with forest restoration and livelihoods

Economic Incentives

Thriving forests → more bee forage

Higher honey yields → increased incomes

Honey and Beeswax Processing Centre in Donkorkrom

Reliable market motivates beekeepers to conserve ecosystems

Key Project Components

- Beekeeping workshops
- Bushfire prevention trainings
- Tree planting to enhance floral diversity
- Social enterprise development with Honey traceability system
- Improved market access for honey and beeswax

Results and Impact 1

Beekeeping Training

- >30 communities reached
- 919 men [494] and women [425] trained on nature-based beekeeping and hive making
- 687 (512M, 175W) keeping bees managing over 8,000 beehives

Results and Impact 2

Bushfire management Training:

- 21 communities trained
- 752 people trained
  - 334 are females
  - 418 are males

- 105 fire volunteers trained
- Fire prevention posters distribution
- 500 hectare of land (including apiaries) protected from bushfires

Results and Impact 3

Tree planting to enhance floral diversity

- planting nectar-rich trees with food crops
  - 3367 trees planted
  - 45% survival rate

Results and Impact 4

Social enterprise development

- Completed the Honey and Beeswax Trade Centre
- Developed honey traceability system
- Registered and launched honey brand
- Purchased and processed >15.2 tons of honeycombs
- Made a cumulative profit of £4000 within two years

Result and Impact 5

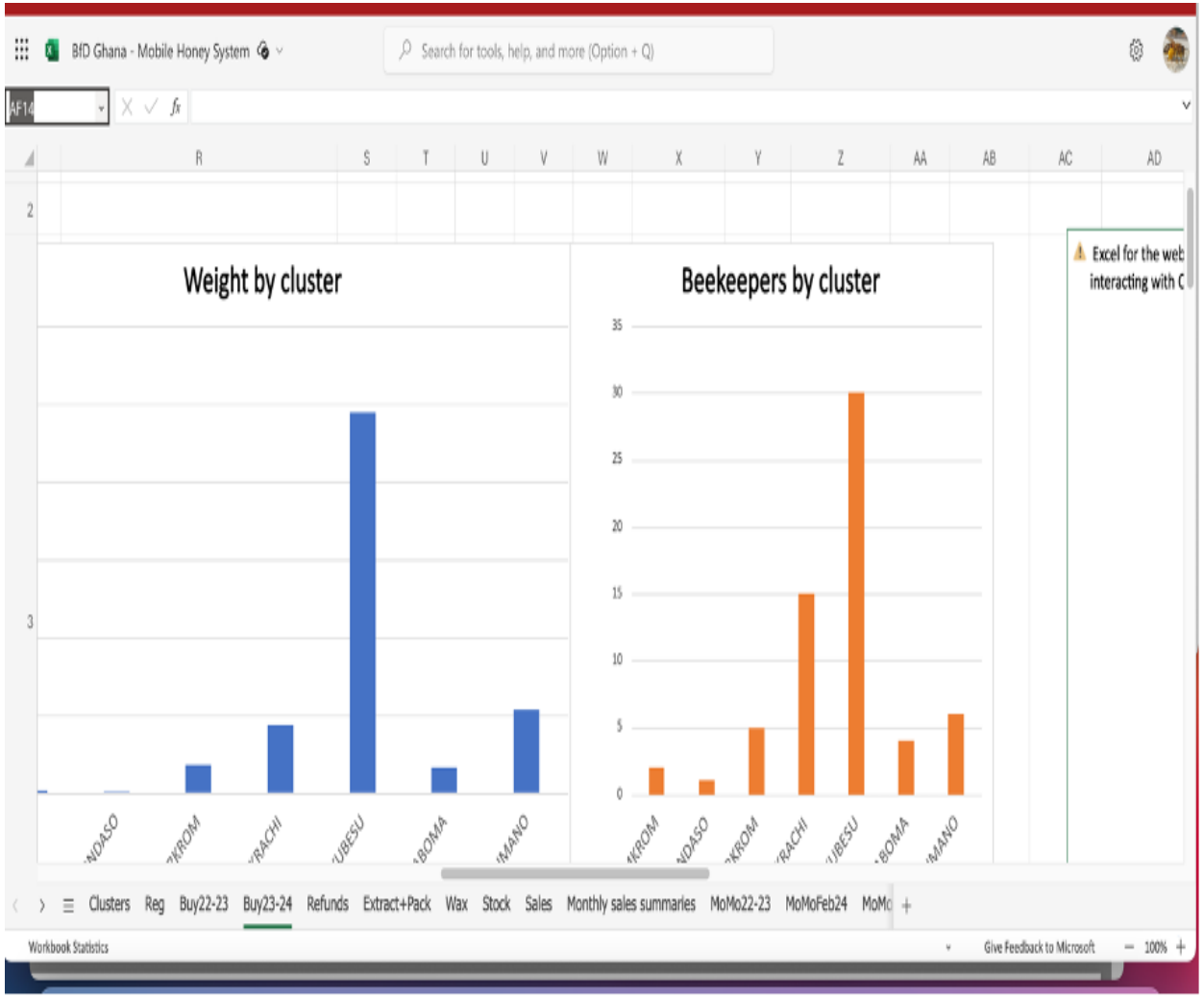
Improved market access for honey and beeswax:

- Beekeepers earned £17,637.97 since April 2023
- Beekeepers earning average income of £151.00
- Financial stability for rural households
- Shift from charcoal to honey production in some communities

Result and Impact 6

Agribusinesses replicating our traceability, quality assurance and supply chain system

- Two (2) agribusinesses
- Four (4) beekeeping cooperatives



Floral Calendar Development

Collected data and created floral calendar for communities

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FLORAL CALENDAR FOR BONDASO COMMUNITY

Main nectar sources: *Gmelina arborea Roxb., Ficus sur, Sida acuta, Daniellia oliveri, Parkia biglobosa, Lannea velutina, Lannea acida* and *Afzelia africana*

Minor nectar sources: *Pterocarpus erinaceus, Tectona grandi, Magnifera indica* and *Vitellaria paradoxa*

Seasons	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Rainy (Main)												
Minor												
Dry												
Main flowering												
Other plants flowering												
Harvesting (Main)												
Harvesting (Minor)												
Swarming												
Dearth												

Lessons Learned

- Access to ready markets is the strongest driver
- Planting trees alone is not effective if drivers of forest loss remain
  - Introducing FMNR
- Financial literacy is key for sustainable change
  - VSLA introduced
- Beekeeping aligns conservation with poverty alleviation

Conclusion

Beekeeping …

… is a powerful nature-based solution

… supports poverty alleviation and forest restoration

… fosters sustainable and resilient rural economies

… model has replication potential across ecosystems

Bees for Development Ghana

... making lives better with Bees

Thank You

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