



DEVELOPING RADIO PARTNERS

Focus: Climate Change & Beekeeping

Deforestation is affecting people that depend on trees and honeybees for their livelihood. Trees provide much-needed shelter for bees. Bees produce honey which is a source of livelihood for some farmers.

Honey is the most important primary product of beekeeping, both from social and economic points of view.

The history of honey usage can be seen in some of the traditions such as the Bemba and Tonga people who have used it as a source of food and medicine. An increase in honey production can be linked to better climatic conditions.

The massive cutting down of trees has led beekeepers to adopt the use of beehives – made from wooden boxes. It is in this space that the bees live and make honey.

These beehives offer advantages – namely, making it easy for beekeepers to harvest the honey and to also keep an eye on the beehive to ensure the bees are healthy.

However, trees provide the cheapest means of honey harvesting. Yet, with deforestation on the rise and reduced rainfall, the quality of the pollen is lower -- leading to a poorer quality of honey.

This bulletin looks at the effects of deforestation on beekeeping and honey harvesting.

The Weekly Information Resource Bulletin

The goals of the Weekly Bulletin are:

- Bring listeners in the project area the latest information on natural resources, the environment and agriculture
- Focus on solutions, what works and what people can do
- Encourage listeners to share both their questions and solutions (African solutions for African problems)
- Raise awareness of issues that need to be discussed to affect public policy.
- Bring the latest solutions and practices that have relevance to this region from around the world
- Identify and link other NGOs working in the region share the project interests and goals
- Give the participating journalists guidance and tips on their reporting on these issues

The Problem: Deforestation & Honey Harvesting

In Zambia, honey has become a growing means of livelihood for more and more people – particularly in rural areas.

Good honey production begins with choosing the right site to place beehives. There should be plenty of pollen and nectar within a one kilometer radius of the hives. There also needs to be stable and favorable environmental conditions.

For instance, a viable honeybee site must have abundant trees to provide adequate shade for the hive. Bees must be protected from the hot sun, particularly in tropical climates. There must also be plenty of flowering plants, especially those that flower all year round. Also, the hives need to have an adequate source of water.

However, these conditions are increasingly harder to find in Zambia due to deforestation and other factors – leading to less honey production.

Mrs. Ikayi Kanyemba, a honey trader who lives in Chibombo district, says she is getting less honey from her bees.

She says one problem is that there are fewer honeybees – and the area where she lives has experienced deforestation. Another factor -- the river that passes near the forest area where she does her beekeeping has dried.

Kanyemba notes that one of the main conditions for having a good honey harvest is that the bees need to find enough quality nectar—which can only occur if there are any flowering plants, bushes and trees.

However, with the indiscriminate cutting of forests there is less pollen – and, too, other plants that could contribute to flowering are not surviving due to heat.

The result has meant less income for people who depend on honey production-- especially during the month of April when farmers aren't getting much income from their other crops.

That is, when farmers finish selling their harvested crops, many turn to honey production.

In many cases, farmers don't rely on manmade beehives, and rob honey from bees living in trees; however, due to deforestation, many trees have been cut down – destroying the bees' homes and the farmer's source of income.

Activities for Journalists

Climate change is affecting the livelihoods of most rural communities. When most farmers finish harvesting their crops they turn to other money-making ventures such as honey production.

Honey production is hampered by changes in the environment -- such as less rainfall and too much wind. It is important that efforts aimed at reforestation are supported since trees can help increase rainfall and serve as wind barriers.

Beekeeping can be used to raise awareness within communities about the importance of the natural environment and it can lead people to engage in conservation activities. Loss of trees has negative implications for beekeepers which means loss of bee nutrients, loss of nesting sites for bees, loss of places to keep the hives and low honey production.

Farmers need to be made aware of the importance of trees, not just for honey production, but for the whole environment. They also need to be informed about agriculture techniques that don't involve cutting down of trees. These techniques include permaculture and other agricultural practices such as organic farming.

Trees play an important role in the conservation of water resources in dams and rivers. If deforestation around major water bodies is unchecked the loss may not be only in limited drinking water, but it also could affect other organisms in the ecosystem which include the production of honey by the bees.

Mr Emmanuel Mutamba, the team leader at Green Living Movement, observes that the honey production industry has not been fully explored and believes it could be used as a climate change adaptation tool. Green Living Movement is helping farmers in Serenje to venture into beekeeping and honey harvesting in order to raise income so farmers can rely

less on crop farming.

A study conducted by Green Living Movement has shown that there is interdependence between temperature and nectar secretion. The particular temperature at which nectar is secreted depends on the plant species. It found that high temperature induces nectar secretion and also increases nectar sugar concentration. Therefore, there is a need to keep planting trees to have a favorable temperature.

Identify some farmers who are using new ways of farming to slow the effects of climate change. Are these new ways of farming working?

Interview a farmer who has been involved in honey production? What are some of the challenges that he/she has been facing in the production process?

Do they think climate change has affected honey production? In what ways? Where does he/she sell their honey?

Talk to an extension agent about beekeeping. Has climate change affected beekeeping in your community? What can beekeepers do to adapt to a changing climate?

Interview an agricultural expert from your area; ask him/her about the adaptive strategies farmers ought to use to respond to climate change effects.

Useful Link

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