

As an employer and major energy provider, hundreds and thousands of Africans make a livelihood from the charcoal industry, and Rwanda is no exception.

Each day, hundreds of trees are cut down in rural areas like the districts of Ngoma, Rwamagana, and Kayonza for charcoal burning, a trend that has also contributed to deforestation, landslides, and land degradation.

It is not to be inferred that Rwandans are naive of the effect of charcoal production on the ecosystem imbalances.

Jean Claude Ntwari, a former charcoal producer for ten years in Muyumbu sector, Rwamagana district admits, “We understood the ramification of cutting down trees on the environment, but then charcoal production was lucrative.”



Ntwari reveals that he abandoned charcoal burning after being taught about the effects of climate change and environmental degradation by local authorities; he was warned how the trade is also damaging forests and charcoal burning produces emissions.

In an effort to change and ensure sustainable livelihoods for people in charcoal production; different organizations like FAO and the United Nations Environment Programme (UNEP) conducted awareness and education campaigns aimed at encouraging beekeeping as an alternative to deforestation.

The essence is to introduce, and inform communities about the benefits of conventional beekeeping, deject deforestation while ensuring sustainable livelihoods.

Over twenty beekeeping cooperatives were formed last year in the Eastern Province and its surroundings, they have received training in all aspects of apiculture.



Beekeepers receive training in Eastern Rwanda

Jean Bahizi Gakunzi, a former renowned charcoal trader in Kayonza observes that the venture was becoming bad business with government efforts discouraging cutting trees. “Besides, it’s tough, strenuous work, and a labor intensive process. You don’t get free time; you travel long distances to fell the trees, cut them into

sizeable logs, arrange them in a kiln and harvest the charcoal once it is ready to carry bags to the market.”

“In most times you do all this feeling you are committing some crimes because charcoal burning has a lot of restrictions, sometimes prohibiting where to cut trees, barring you to burn and you do most work hiding,” Gakunzi stresses.

The 34-year-old is now a trained beekeeper with COPANYAKA cooperative and a bicycle mechanic.

Gakunzi says he felt like wanting a legal profession and was lucky when local authorities started raising awareness against felling while offering sustainable alternatives. “I picked beekeeping since it would get me time to engage in other income generating activities like mechanics.”

“I always had trouble with authorities, today I feel like a model citizen living in peace with everyone.” Gakunzi notes.

With 15 beehives, he harvests about 35-45 kilograms per season, making around Rwf300,000 (\$300) at the same time he continues earning from his mechanical repair services.

Norbert Nduwayezu, Chairman of Abanyamurava Cooperative located in Muko cell, Murama sector with 23 members explains that charcoal burners like Ntwari joined beekeeping cooperatives for the reason that cutting down is restricted.

“We were offered alternative skills in apiculture, provided support to start a cooperative in 2018,” Nduwayezu notes, adding that they now own over 300 traditional beehives and each member has at least 14 beehives.

The chairman warns that charcoal traders face risks where charcoal bags and bicycles get impounded, those without permits are stopped and sometimes resort to bribery which brings more problems that can end you up losing all the capital.

Many of the members in the cooperative who quit charcoal burning are doing multiple activities especially in farming.

Ntwari, a member of Abanyamurava cooperative notes that, If you hang three to four beehives on a tree, you get a continuous income, but if you cut it down it takes years to grow and without a permit you are fined.



Jean Claude Ntwari in the forest checking on beehives.

From 14 beehives, Ntwali harvests twice in year and gets more than 28 kilograms per harvest, yielding at least Rwf.120,000 (US\$120) annually.

Jean de Dieu Kwizera who owns Bee Gulf in Bugesera district notes that encouraging charcoal burners to take up apiculture has a positive impact on the environment.

He further says that even charcoal resellers, transporters and vendors involved should also be educated and sensitized about the disadvantages of charcoal production to the ecosystem.

Regina Mukakalisa is a former intermediary in charcoal trade and now a member of CATIKA beekeeping cooperative in Kabarondo sector of Kayonza District. She gave-up charcoal trade because of illegal skews involved.

She says that many charcoal traders are willing to abandon the trade but lack information on sustainable activities they can venture into.

"I am no longer into smuggling business," Mukakalisa boasts that charcoal trade tantamount to smuggling. She now owns 20 beehives together with other farming activities.

In order to help beekeepers, different organizations like VSO have offered trainings on how to build modern beehives, acquire equipment for harvesting to boost honey production and ease the harvesting process.

Some of the equipment included is; conventional beehives, accessories, honey extractors and sieves, candy sugar smokers, the processing equipment as well as bee suits.

Samuel Habimana, former charcoal burner admits that he quit charcoal trade after the government drafted an ordinance that prohibited cutting trees with permit and more restrictions in national parks.

As a member of KOABIMU beekeeping cooperatives since 2018 in Ngoma, he explains that after receiving modern beekeeping equipment, he went from earning around Rwf36,000 (\$36) per harvest to over Rwf250,000 (\$250), and the income from beekeeping is sustainable.

“At first, I didn’t know how to make beehives or extract honey using modern machines. I didn’t know how to look after bees properly, but with the modern hives it is easier,” he notes.

COPROMA Cooperative of honey producers near Akagera National Park in Ndego sector received 30 beehives, machinery and two beekeeping suits from VSO, a nonprofit that works through volunteers to empower rural communities in Rwanda.

Faustin Turikumana, the president of COPROMA, says that after receiving equipment, their harvest increased from 1,000 to over 4,640 tonnes of honey per season. While many residents who depend on the forests considered charcoal production, today they are shifting to sustainable solutions.

Last year, The APIARY, a social impact enterprise passionate about bringing Rwanda special honey to the world trained beekeeper cooperatives in six districts of Rusizi, Nyaruguru, Huye, Kirehe, Nyamasheke and Rwamagana.

The APIARY thinks that the essence is to inform target communities about the advantages of investing in conventional beekeeping to both protect the environment and improve livelihoods.

Abigael Ingabire from The APIARY says, “We worked with 28 beekeepers in our train-the-trainer program; the members then share knowledge and skills to others.”

The training equipped beekeepers with modern practical skills, specifically: materials needed, characteristics of a good site for beekeeping practice, transferring bees from traditional to modern beehives.

They also learnt about apiary management, bee disease prevention and pest management, techniques to control and improve the honey quality, queen rearing and bee colony multiplication, and improving the value of bee products like beeswax.



Beekeeping is significantly contributing to improved livelihoods of most rural communities that were formerly in charcoal production but many still believe that the former generates a quick buck than farming.

Adelphi Sibomana, a farmer from Nzige sector in Rwamagana district notes that

lack of information on improved bee farming, use of traditional hives, lack of proper marketing and pesticides are some of the main factors to low honey production.

Sibomana calls on the government to ban the importation and sale of products that kill bees because improper spray of pesticides is driving pollinators to extinction.

Lack of adequate and intense research on the existing beekeeping technologies, equipment, honey bee and product utilization also presents challenges to apiculture in rural areas of Rwanda.