# Highland economies in crisis as Cordycep yields plunge



*These scenes from the past are a rarity now* *Photo Courtesy: Bhutan the land of happiness*



*Aie Lham is making money from Homestays now*

**Tshetrim Namgay**/*Gasa & Thimphu*

Having immediately asserted itself as the primary, and most lucrative, source of income in the highlands since harvest legalization in 2004, Cordyceps (Ophiocordycepssinensis)has since been on the decline but the steepness of the recent plunge in yield has become serious cause for concern to both highlanders and the government as to the sustainability of near absolute dependence of the region's economy on this single herb.

Before Yartsa Guenbu (summer plant winter worm) the semi nomadic inhabitants earned from yak products, including meat, and bartering of the medicinal herb Picrorhiza Kurroa(putishing). They would pitch their black yak hide tentsand venture forth to trade their products for bare minimums. When these ran out some would find work in local farms while those unable to do so were forced to survive on charity

Laya today, one of the benefactors of the Himalayan Viagra, exudes an air of prosperity in total contrast to the narrow six hour trail one takes through thick mountain forests to get there.

However recent failed harvests are prompting concerns over whether this air could wear thin.

Researchers identify one of the main reasons across the highlands, including regions in Nepal, India and the Tibetan Plateau who are also experiencing downturns, as overharvesting. This has become such a major problem that the Chinese government has classified the fungus as endangered.

Deputy Chief of Non-Wood Forest Production division Sonam Pelden said that harvesters, a majority of whom were uneducated, were not aware of the importance of following correct harvesting techniques to ensure sustainability in the long run.

Field officers at extension offices in the Cordycep regions have been conducting trainings and awareness programs and have largely succeeded in making harvesters hand pick the fungus instead of the customary use of digging tools and in not removing worms completely from any one harvest area.

Using digging tools cause compaction of the soil thus making it difficult for the fungus to get in contact with the larvae which are found up to 15cm underground.

A common occurrence is the uprooting of the fungus before its spores achieve reproductive maturity and this reduces the next population. Leaving a few unpicked ensures new growth.

Another open secret among the highland communities is that harvesters go where the price is better, even across the northern borders where the prices are generally higher. There has, however, been no official record of such cases.

Newly elected Laya Gup Lhakpa Tshering, who has been a harvester until last year said that selling across the border has been known to happen but with tightened monitoring by forestry officials there is "no chance" of it happening now.

Medicinal Plant Specialist at Yusipang, Tshitila who has been involved in the study of Cordyceps said that it could just be a natural cycle, explaining that there is a four year cycle in which one good harvest year can be expected.

Aie Lham of Laya said that it was common knowledge, confirmed by her own harvests, that they had had high and low yield harvests regularly over the past years; "But this year has been particularly bad," she said, "I got only about 300 pieces whereas I could comeback with over a few thousand pieces before."

However, with research into the fungus not as extensive as it could be Tshitila said there wasn't concrete scientific proof to back it up. "We do not have proper documentation of the lifecycle or morphology and it is important that we have that," he said.

While policies on Cordycep harvest (restricting number of harvesters to three per household, legal harvest season of three months from May to July and need for government pass) ensure that we do not have the problem of overexploitation like the gold rush in Nepal or the endangered label applied in China, obliteration of the fungus is still a possibility in the long run and if that does happen the population growth of the larvae or caterpillar could wreak havoc on the fragile Alpine ecosystem

One option the specialist thinks could be undertaken, as a worst case scenario, is to stop harvest for two to three years.But then people need to make money.

So identifying an alternative revenue source is paramount, not just for the scenario of a temporary harvest ban but also as a supplement in times of poor harvestsparticularly since highlanders have a reputation for extravagance and a distrust of banks.

While tourists on the Snowman Trek use homestays and hire horses, it is not nearly enough.

However the initiation of the Royal Highland Festival and the Snowman Marathon (not the same as the Snowman Trek) last month was successful in taking Layaps' minds off of the dark cloud of harvest failure.

AieThinley Dem earned Nu.42,000 from providing homestay service to visitors from Thimphu and Nu.21,000 from selling vegetables from her garden in the five days of the festival.

"This income will last me about six months," she said. Since the festival is in October the timing is just about right for her as the harvest season for the aphrodisiac, May to July, will be near by the time her earnings end.

As a pilot project towards sustaining Laya's economy, the festival and the marathon have succeeded and also garnered attention from tourists, both local and international.

Similar undertakings could be initiated across other highland communities, 3500m up to 5000m, and reduce the pressure on Cordyceps, not only making money but protecting the fragile ecosystem of these regions too.

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