



The Blue Mountains are a jewel in the crown of the Western Ghats. They are home to a wealth of endemic floral species and to many indigenous tribal communities including the Irulas, the Kattunayakas, the Todas and the Cholanaikas - pastoralists, hunter gatherers and shifting cultivators who are more or less completely dependent on the natural resources available within the reserve.

Traditionally, wild foods such as fruits, roots, leaves, tubers, mushrooms and small wildlife foraged from the forest lent tribal diets a complex diversity. Today with large sections of the region under threat from plantation agriculture, infrastructure projects and degrading forest quality, the sources of these wild foods are shrinking; rural communities are being separated from the forests, and forced to take up wage labour in farms and factories. The casualties of this separation are the gradual disappearance of a centuries old cultural heritage and traditional knowledge of gathering and using wild foods.

When the Kotagiri based [Keystone Foundation](#) began working in the Nilgiri Biosphere Reserve in 1993, it quickly realised that its environmental conservation efforts would have to be complemented by livelihood enhancement of forest-based communities. Among the first people it associated with were the honey-gathering tribes such as the Kurumbas and the Todas, who made a living from the gathering and sale of wild honey to local traders, often at throwaway prices. Keystone began offering marketing support for the honey they collected, creating local markets all across the

Nilgiris. This saved the adivasis the long journey to the urban centres of Ooty and Coonoor to sell their produce and protected them from being exploited by traders.

Simultaneously, training in sustainable, minimal damage harvesting, cleaning and processing of honey at the source as well as manufacture of value added beeswax products ensured that the collectors were able to get more remunerative prices for their harvest. To consumers, it meant availability of good quality honey harvested sustainably.

In 2010, to manage the growing volume of sales, [Last Forest](#) was created as an independent social enterprise entrusted with developing fair trade markets for small and rural enterprises. Last Forest is certified by the World Fair Trade Organisation and by the Participatory Guarantee System (PGS) - a system of organic certification based on producer integrity and peer review. Besides its flagship product - honey, Last Forest today markets the products of 45 groups across the country, ranging from small organic farmers and fair trade enterprises to women's groups and craft collectives. Its product range includes millets, jaggery, value added products made with non-timber forest produce such as wild fruit, pepper, spices and shikakai, as well as Toda embroidery, all of which is sold through its online store, through retail outlets known as Green Shops in Kotagiri, Coonoor and Ooty, as well as in 100 of its partner stores all over the country. As a way of reinvesting the value derived from forests into their conservation, Last Forest ploughs its profits back into supporting Keystone Foundation's research and conservation work besides financially supporting small social enterprises to grow.



Staff of the Aadhimalai Producer Company Image: Keystone Foundation

Expanded access to unprocessed products led to a further split in the supply chain with the establishment of [Aadhimalai Pazhangudiyinar Producer Company](#) - a 1600 member company managed by indigenous people of the Nilgiris. Since 2013, 5 processing units set up in and around the forests of the NBR, all managed and run by local youth and women are where Last Forest's honey and other products are processed and packaged. Aadhimalai has been successful in offering improved livelihood opportunities to local communities; the unit staff, who would have left their villages in search of wage work in cement factories and tea plantations. are now entrepreneurs who enjoy an improved social position, says Nandan HS, member of Last Forest.

A changing landscape

Honey hunting, no matter how responsibly done, holds great danger for the bees involved because it deprives them of their main food source - honey. Most commonly, honey is extracted by using smoke to temporarily drive the bees out; less ecologically sound is the process of burning a hive, a process

that not only kills the adult bees and the brood, but wipes out entire colonies and reduces chances of regeneration.

But many of the traditional honey harvesting techniques of the Nilgiri tribes are naturally sustainable; collection is timed so as to inflict the least damage on the bees while extracting the most honey; avoiding ecological irritants such as smoke and fires; and leaving designated hives untouched to allow the population to regenerate.



Harvesting honey from hives on a cliff Image: Last Forest

The Todas, for instance, use an [interesting](#) technique to harvest honey. They breathe into tree cavities where hives exist. This has the effect of calming the bees down, following which a stick is used to extract only the honeycomb, leaving the hive and the young bees unharmed. To keep traditional knowledge of harvesting practices alive, Keystone Foundation began training the younger generation in ecologically sound honey harvesting, and helping them see the value of bees beyond honey production. This helps keep and ensures that the forest is exploited in controlled, regenerative ways and ensures that there's a yield every year; impossible if the whole colony is destroyed, Nandan tells me.

The shola grasslands of the NBR are seeing their share of deforestation and biodiversity loss, he tells me, evidenced by a marked drop in honey harvest

over the last few years - from 20-24 tonnes 5-6 years ago to 15 tons in 2015. Climate change affects bee habitats and fewer natural forests means fewer sources of nectar leading to less honey production. “Honey shortage is a phenomenon that has never been witnessed before in the region, leading to fear and anxiety among people. They remember having 20 hives to collect honey from, and today, they see only five,” Nandan says. In turn, they seek out alternative sources of employment, primarily coffee cultivation which the Foundation encourages if farming is organic and done on fallow or degraded lands. Besides, locals are trained to become stewards of natural resources and to participate in forest governance instead of selling off their lands to external commercial entities.



An endless supply of honey in urban markets

Squaring sustainability with scale

Once, the wild edible plants gathered by forest communities were important sources of income and nutritional security, especially during times of

drought. Today however, Nandan observes, less bound by ties to the forest, the tribal way of life and their dietary patterns are changing; they are moving away from millet cultivation and into cash crops and their meals become more simplified, dominated by processed foods and rice.

In such a context, the benefits of commercialisation and value addition of wild foods are many. Among other things, it reduces poverty among forest-based communities by offering new livelihood opportunities; in the NBR, between 20 and 80 percent of the gross annual income of adivasi households [comes](#) from the collection of NTFP, mainly honey. Their growing popularity, one hopes, will push local populations to incorporate these foods back into their diets while protecting their habitats to ensure a steady natural supply. The work of enterprises like Last Forest also helps revive a cultural heritage that could hold the key to nutrition security and climate resilience in India.

Commodification, however, is not without drawbacks. Exploitation of wild foods puts pressure on scarce forest resources especially if harvesting is done in destructive ways and unsustainable quantities. Take the case of honey: a major part of India's honey comes from wild bees whose populations are [declining](#) at an alarming rate, yet honey is in seemingly endless supply in our markets. As wild foods gaining superfood status whet urban appetites, there also exists the threat of forest communities selling off their nutrient-rich foraged foods and risking the loss of a vital source of nutrition. Equally worrisome is the prospect of forest-dwelling communities being bypassed by businesses accessing forest produce in destructive ways.

It is thus important that whatever natural produce is harvested is done in tune with nature's cycles, in regenerative ways and regulated quantities by forest-dwelling communities, using appropriate tools and fair trade practices so that they are its ultimate beneficiaries.

As consumers, we need look no farther than our plates for the most visible signs of a changing environment. We're thus duty bound to look critically at the source of any forest produce we buy and learn of the social and ecological impacts of our consumption.

Featured image: Taushik Mandal/ Flickr CC: Women of the Nilgiris make handcrafted beeswax soaps for sale by Last Forest.