Project case-study: Ayurveda, sustainable incomes and Hornbills: Building a sustainable FairWild supply chain for medicinal plant ingredients in North Western Ghats, India

Map: © Google Earth

Conservation of biodiversity in a human dominated landscape has always depended on the extent to which particular values—cultural, spiritual and/or economic—are respected. In India, rapid economic development and the forces of globalization have led to a severe deterioration in cultural values associated with natural resources, their being substituted with monetary ones. This has led to unsustainable exploitation, posing serious threats to the stability of ecologically important habitats such as the forest ecosystems of the North Western Ghats. There is, however, an opportunity to enhance biodiversity conservation through the careful use of economic instruments. The medicinal plants sector, though highly promising in terms of combining economic development and biodiversity conservation, has seldom delivered on these expectations. Unfair market practices and a disregard for resource sustainability are some key reasons behind this failure, as evidenced by local extinctions and declines in healthy populations of many economically important medicinal plants.

Good management practices that are ethical, inclusive and economically viable may provide a truly sustainable alternative for biodiversity conservation and livelihoods. The principles and criteria of the FairWild Standard and its associated certification system have the potential to make forest conservation economically viable.


Haritaki collector Dhondo Kalo Titkare in Dhage Wadi village Bhimashankar © Pukka Herbs

A project to address these issues is implemented in the North Western Ghats of India where FairWild certification is being tested as a vehicle for promoting biodiversity conservation and economic growth through the sustainable collection of target species. In

the North Western Ghats, a global biodiversity hotspot, the majority of the forest landscape is privately owned and therefore unprotected: according to the figures from the Government of Maharashtra, in three districts alone—Raigad, Ratnagiri and Sindhudurg—about 6000 km^2 of forests are owned and managed privately. The average forest cover in these districts is 48% of the geographical area. In the absence of sound biodiversity management practices on these lands, subsidy-driven monoculture plantations, together with a lack of knowledge about economically viable sustainable alternatives, is resulting in large-scale deforestation.

The Applied Environmental Research Foundation (AERF), a conservation non-governmental organization (NGO) based in Pune and the implementing partner of the FairWild project, started an initiative—Myforest (Myforest.co.in)—in 2007 to address a problem of deforestation in this region. Under this programme, AERF offered a financial incentive to the marginal and the economically weak farmers to encourage them not to log the forests, signing conservation agreements with them, which last for between five and ten years. The progress of this approach was initially slow as this was a completely new way of looking at forests. However more farmers joined this initiative once they started to think about resources in a holistic way. Through this initiative, AERF has secured protection for 2000 acres of forest up until 2020. Though this is a significant step forward in arresting deforestation, it was then necessary to create a revenue model based on sustainable use of this vast resource in order to create a self-sufficiency necessary to sustain this conservation initiative. About three years ago, AERF became aware of the potential of FairWild certification in addressing some important sustainability issues of biodiversity conservation.

Pioneering FairWild certification in India


Community members of the Village Dhagewadi Bhimashankar © AERF

In 2010, AERF, together with the University of Kent, supported by a Darwin Initiative Scoping Grant, carried out a feasibility study for this project in the North Western Ghats region. The motivation for the study was provided by the active involvement in the initial phase of Pukka Herbs Ltd.—a UK manufacturer of herbal teas and medicinal health products, whose interest in purchasing organic and FairWild-certified primary processed fruits of *Terminalia bellirica* and *T. chebula* helped AERF to shortlist two sites for possible implementation of the FairWild certification. The first of these—the Bhimashankar Wildlife Sanctuary in the North Western Ghats—is traditionally known for the collection

and sale of *T. chebula* by the tribal community *Mahadev Koli*. The second site—the forested areas located in Sangameshwar, in Ratnagiri district—is rich in populations of *T. bellirica* trees. The fruits of these trees have proven anti-inflammatory and anti-viral properties and are used in "triphala", said to be one of the most central products consumed as part of Ayurvedic practice.

Destoning machine community handover ceremony in Bhimashankar © AERF

After assessing the potential benefits to conservation and rural livelihoods in these areas, AERF started initial work towards the FairWild certification using existing funds. These efforts received a boost from June 2013 when AERF, in partnership with the Durrell Institute of Conservation and Ecology (DICE) at the University of Kent, and Pukka Herbs Ltd., secured financial support from the UK Government's Darwin Initiative, followed by a grant from the Keidanren Nature Conservation Fund (KNCF), jointly with TRAFFIC, to promote the FairWild approach. These funds have enabled the implementation of this programme to gather pace.

In 2013-2014, AERF has conducted capacity-building sessions for the local communities, carried out a situation analysis, as well as a trial collection and primary processing of the collected fruits. The final selection of beneficiaries has been completed, the first organic certification audit was carried out in 2014, and the first FairWild certification audit in India for the project is planned for 2015.

Bridging a technological gap in processing the collected fruits, through purchasing the solar dryers for drying fresh harvested fruits and the de-stoning machines, provided an additional step towards the set-up of a working sustainable value chain for important Ayurveda ingredients.

Conservation and community benefits

The project has achieved two significant outcomes benefitting both conservation and the communities. The study carried out by the AERF research team in 2011 identified that, out of 33 nesting sites of the Malabar Pied Hornbill *Anthracoceros coronatus* and the Great Hornbill *Buceros bicornis* in the Sangameshwar block, 23 were found in *Terminalia bellirica* trees. There is therefore strong incentive not to cut down the trees if the fruit can earn communities a decent income which, in turn, sustains the conservation of hornbills.

As for the impact on communities, the *Mahadev Koli* tribal people of Bhimashankar Wildlife Sanctuary, who for centuries have engaged in the collection and local sale of *Terminalia chebula* fruits, have now understood the potential and scale of the

mainstream economy based on the processing of these fruits, and are now, supported by the project, gaining the capacity to do so. Hitherto, a lack of sufficient incentive and the requirement for documentary evidence of ownership of the resource has meant that they also have been deprived of the economic opportunities available in the domestic market.

However, the intensive capacity-building sessions, coupled with documentary requirements of FairWild and organic certification, is helping these communities put their land records straight and officially claim ownership of the trees on their land. This is an extraordinary outcome, which provides a fine example of stakeholder groups—communities, NGOs, the private sector and academic institutions—coming together for a single cause, and using a combination of good practices and economic incentives to precipitate biodiversity conservation and sustainable livelihoods. Such consensus augurs well for such initiatives achieving successful outcomes over the longer term, both for the local communities in these selected sites in the North Western Ghats and the rich biodiversity they harbour.

Haritaki collector Dhondo Kalo Titkare in Dhage Wadi village Bhimashankar© TRAFFIC/Amit Kotiya

For the local communities who depend on collection of wild fruits for livelihoods but aren't part of the FairWild certification project, AERF is establishing a link to the domestic manufacturers of the Ayurvedic drugs based on the target ingredients. Moreover, for broadening scope of FairWild-certified medicinal raw materials, another plant species—*Tinospora cordifolia*—has been included in the supply chain. *Tinospora cordifolia* is an important Ayurveda plant, known for its anti-diabetic, anti-spasmodic, anti-inflammatory, hepatoprotective, immunomodulatory and other medicinal properties. It is commonly found in the forest landscapes of the North Western Ghats and sustainable income generation from this plant could certainly help in saving big old mango trees from logging. It is believed that if a *Tinospora cordifolia* climber is associated with a mango tree, it will be medicinally more effective. With broadening of the scope of the FairWild certified supply chain to include this species, the project will be able to create a bigger impact for conservation and sustainable livelihoods.

For more information

TRAFFIC: www.traffic.org

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