

For hundreds of years, the Bharia and Gond tribes of India's remote Patalkot Valley have eked out a culturally unique and environmentally sustainable lifestyle where plants have played a central role in spiritual beliefs, and the land was treated as Mother. Now, warns Dr Deepak Acharya, an ethnobotanist who has lived at Patalkot for over six years, their remarkable knowledge and inspiring way of life is under threat from outside influences, including the commercial search for the pharmaceutical treasures hidden in the valley's local forests.

A Bharia, with his chillam, overlooks the deep ravine of the Patalkot Valley.

When I first saw Patalkot, I was struck by its rugged beauty. Located on the Satpura plateau in the Chhindwara district within Madhya Pradesh State, the geographic 'heart' of India, this horseshoe-shaped, forested valley is ringed by sheer cliffs that in some places rise straight up for hundreds of metres.

Patalkot – which literally means 'below the earth', and derives from the Sanskrit word *patal*, meaning 'very deep' – is spread over 79 square kilometres and is unique for its forest and herbal wealth. In fact, the Patalkot forest – home to panthers, leopards and other wildlife – is so well hidden that few people outside the valley even knew it existed until the early 1990s.

This isolation has helped preserve the rich ancient ways of local indigenous people – the Bharia and Gond tribes – who have inhabited the valley for hundreds of years. In their valley sanctuary, they have developed unique herbal treatments and uses from local plants,

including treating ailments such as measles, cholera, hypertension, diabetes, coughs, snake bites and pain.

Dr Sanjay Pawar from Danielson College, Chhindwara, who has been documenting *bhumka* (local herbal healer) knowledge for the past few years, says, 'These people have a strong philosophy about caring for and preserving the environment and Mother Nature. Tribal people worship these plants; their herbal heritage is a real treasure for them.'

Unfortunately, the remarkable integrity of this ancient herbal culture and its ancestral tradition of sustainable living is now under threat from the encroachment and influence of modern society. When they re-discovered Patalkot's treasures in the early 1990s, visitors saw a way to make a profit: they brought in teams of harvesters to strip the forests for valuable herbs. Whole sections of forest were cut down to gain easier access to collection sites.







Scientists, NGOs and outsiders too are making an impact on social life here. Various NGOs are making the Patalkot people a *cause célèbre* for their own fundraising aims, and herb 'brokers' have been picking up important plants with the help of unsuspecting locals who, in return, are handed radios, watches and English wines.

'Old people in the community have always refused such offers and they don't respond to people coming from outside,' says Dr Surendra Bhade, a primary school teacher from the village of Chimtipur.

The portable radios that were given to the tribal people in exchange for information about where to find the plants now blare through the forest, frightening off wildlife and replacing the communal music that once bound the tribal people together.

Of concern for locals is that the increasing demand for Patalkot's flora has meant important medicinal plants – such as Gudmar (*Gymnema sylvestre*), Kalihari (*Gloriosa superba*) and Sarpagandha (*Rauwolfia serpentine*) – are on the verge of extinction.

Self-sufficiency from nature

Patalkot Valley is home to 24 villages and 15 hamlets with a total population of around 3000.

Legend has it that the kings ruling in this area in the 18th and 19th centuries constructed a long tunnel connecting Patalkot to Pachmarhi in the Hoshangabad district. It is also believed that around 950 AD, when

Muslims invaded India, the Bhors dynasty came to the Satpura mountains around modern Chhindwara. They selected Patalkot for its natural resemblance to a fortress – in fact, there's a cave in the valley called Raja Ki Khoh ('Cave of the King'), where the Bhors leader is believed to have stayed.

Today, the valley people's spiritual beliefs are closely tied to their natural environment; their gods and goddesses are associated with the trees and herbs around them.

'We perform prayers and rituals every day and the prayer place is known as Devghar (God's home),' says 40-year-old Jai Singh Bharti, a Bharia from the village of Dandipatha.

Dance and herbs are central to their ceremonies. The Karama ritual dance, for example, performed to worship lord and god Shiva, requires twigs of the Karmi (*Adina cardifolia*, also known as Kalmi or Haldu) tree, which is said to have special powers.

'We see our god in the Haldu tree. It is also a very important tree medicinally,' says Monjelal, a Gond from Chimtipur village. 'We generally use leaves and bark of the plant for medicine purposes, and we can never ever imagine cutting down the whole tree,' he adds.

Similarly, the indigenous people of Patalkot believe the soil is their Mother and that they should not use *bhakkhar* (ploughs). They say it gives pain to the heart of the motherland. 'Tribal people perform *dahiya* cultivation. In this method, soil is not ploughed. Instead, it is dug by hand using a *khurpi*,' says Munnalal Bharti, another schoolteacher from Chimtipur.

Using *dahiya* cultivation, the people produce the staple grain crops Kodo and Bhadli (both grasses), Kulthi (a pulse), Sama ('little millet') and Dodma (a locally grown traditional grain).

For lighting a *chillam* (a water-laden pipe for smoking tobacco) or *beedi* (a home-made cigarette), Bharias strike a *chakmak*, a small iron bar, on a stone to ignite a piece of cotton held close. 'It works every time,' says Sarjan, a 23-year-old from the village of Sidhouli. Matchsticks aren't as good – they become soggy in the monsoons.

The Bharias also enjoy drinking a home-made liquor known as *gapai* made from Mahua (*Madhuca indica*). However, as Dr Surendra Bhade points out, 'Money has

Top left: Preparation of a home in Chimtipur.

Left: The author recording the herbal knowledge of villagers.

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Top: A young Bharia on the top of the valley. Top right: A Bharia smoking *beedi*. Above: Outer view of a tribal home in Kathotia village.

come their way, so preparing *gapai* at home is now a waste of time. They are able to get English wine outside the valley. Why would they wait for months to make *gapai*?'

But *gapai* is 'God's gift to us', says Kevla Bai, a Bharia from Bijadhana, revealing the emotional bonding that the primitive Bharia tribe share with the Mahua.

Dr MK Rai, Head of the Biotechnology Department of Amaravati University, believes we can learn a lot from the Patalkot people, who largely travel on foot.

'The tribals of the valley are immensely energetic,' says Dr Rai. 'They walk all around the valley, approximately 30 km a day, and they never look tired. I have never seen a single bald tribal. It is all because of their closeness with nature.'

One of the herbs that has been of great interest to 'biopirates' from the outside world is Kali Haldi or Aenthi (*Black Turmeric*). *Bhumkas* use it to perform *Tona* and *Totka* rituals to help people achieve success, according to local spokesman Jarsi Bharti. 'Nature has created some rare things, the use of which is auspicious for health, wealth and happiness,' he says.

'Another is the Aak, a rare white plant with white flowers. It cannot be found easily either. The root of this white Aak must be taken out carefully. When the bark and thin wood over the root is peeled off, one will see an image of Lord Ganpati below it. Any house with a white Ganpati remains free from all evils and the possessors are blessed with immense wealth,' says Bharti.

'If the root of the lemon tree is taken with water by a lady who is blessed with sons and wants daughters, she will give birth to a girl child,' says Modha Singh, a 78-year-old *bhumka* from Harra-ka-char village.

Bhumkas also know traditional cures for various ailments. 'Tender leaves of castor plant or tender leaves of Jivanti should be fried in ghee and eaten every day to cure night blindness,' advises Chilmilal, a bhumka from Chimtipur. He has handed over his herbal knowledge to

his son, Mojelal, who will in turn aim to hand it on to his son, Rajelal. That's three generations – a real example of how traditional knowledge is passed on.

But many young people, such as the son of Haria Ram, a 78-year-old *bhumka* in Sidhouli, are not interested in learning traditional cures. 'I don't mind if I die without sharing my knowledge. I shall share it with one whom I trust and one who shows that he would use this knowledge for community welfare only,' his son says.

Influence and deforestation

Recently when I visited the village of Chimtipur, deep within the Patalkot Valley, I was shocked to find loggers cutting down trees in the surrounding forest. I rushed to Mehtaab Singh Uikey, the Head of Janpad Panchayat (a local governing body) and asked why the trees were being cut down.

'Tribals have no choice, they need money to survive,' was his reply. I was deeply saddened to hear this. For the next hour or more, he told me about the problems of the tribes in the valley, and said that he was very unhappy to see the disappearance of the forests. His feelings are shared by Faglal Parteti, Sarpanch (Village Chief) of Sidhouli. Yet both say they have no choice.

At one time, valuable plants such as Charbiji (*Buchanania lanzan*) and Safed Musli (*Chlorophytum borivilianum*) were found abundantly in the forest. But then a few brokers came, and things changed. They purchased these important forest products cheaply and sold them in outside markets at higher prices.

'The difference in price between the first sale made by a local tribesperson and the final procurement price paid to the herbal pharmaceutical companies is around 700–800%,' says Mr Manish Singh, Executive Director of a new herbal formulation company in Gujarat and Secretary of the Aromatic Plant Growers Association of India, Gujarat State. 'The supply chain is full of mediators who deprive the tribals of what they deserve.'



Far left: Drying of Mahua in traditional courtyard. Left: Gond youth in Chimtipur village. Dr Deepak Acharva

'This is a major discouraging factor for cultivation of medicinal plants on the grassroot level. Yet, what oil is to the Gulf states, herbs could be for the Indian economy,' says Singh.

But development may come too late for the poor tribal people of Patalkot. Many are already migrating away from the area to earn money.

'It is a natural phenomenon. The process of migration from rural areas to richer rural areas is common,' says Dr SK Nanda, Principal Secretary, Gujarat State, who has done a PhD on tribal migration. 'Based on various indicators of development, it is important to identify those regions which "push" people out. It is necessary to concentrate effort in those areas to check unnecessary migration.'

Some of the older citizens in the valley blame local politicians for their plight. 'They [politicians] are opportunistic fellows,' says Faglal Kavreti, the Village Head of Sidhouli. 'They come to us during elections only. They give us money, clothes and wood for voting in favour of them. But they forget us as soon as the elections are over. Politicians are not seriously concerned about the issues related to us.'

A disappearing world

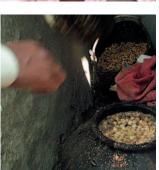
Kanta Ram from Harra-ka-char village has never been to a city. He remembers his grandfather teaching him how to till the land, milk cows, thatch a hut and make fire without matches – traditional skills that Kanta believes will be lost by the next generation in his community. Now he is very worried about the rapid change in behaviour of youth in his community. 'The government has listed the Bharia tribe among the five vanishing tribes of Madhya Pradesh,' he says. 'So far, nothing has been done for them.'

The Madhya Pradesh authorities, however, are trying to take some action, particularly given that Patalkot has rich forests. The forest department is now trying to act quickly to safeguard it.

'With the pressure on their habitat, the Bharias constantly want more land for agriculture,' says Dr PB Mesharm, from the Centre for Forest Research and Human Resource Development, Chhindwara. 'Unfortunately, there isn't any left, so we are teaching them other things like collecting forest produce and cultivation of medicinal plants.'

But Chaitram Bharti, an elderly resident of







Bijudhana village, is content with his way of life. 'People laugh at us and ask us many times about our odd living conditions. But we get social respect here. I don't want anything from the outer world.' All he wants is to till his land, smoke his *chillam*, play with his grandchildren and gaze at the sun setting over those cliffs.

For me, as one who has had the privilege to experience these 'odd living conditions', I am very concerned to see what is happening in the Patalkot Valley. So now I am taking action by letting the world know about the need to protect the forest, its people and their culture, hence this article.

Once this unique culture changes, it will be gone forever. Authorities need to carefully consider if this is what will happen, or if a special effort will be made to celebrate this culture and bring its timely wisdom into the modern world.

I ask any intending visitors to Patalkot to think twice about their journey to this respectful valley of ancient wisdom, and to bear in mind the influence they bring.

Microbiologist and botanist Dr Deepak Acharya is the Executive Director of a herbal formulation company based in Ahmedabad, India. He has published several articles on the threats facing Patalkot and its ethnobotany, and is currently involved in a project to document the indigenous knowledge of Patalkot bhumkas.

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Middle top: The Head of Chimtipur, sharing his views with the author.

Middle bottom: Local liquor, *gapai*, in preparation.

Above: A Gond villager in front of her home.

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