Leaf Litter

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Contents

Cover photo: Leaves of *Alstonia venenata* with a flower of *Gmelina arborea*. Both are deciduous species and found commonly in most parts of India, in low to middle elevations.

Messing with time

Over the past five or six years I have been watching the little forest patch I live in. In fact, I've been watching the individual plants and trees that comprise the forest. The stages of leaf-fall, the first flush of new leaves, the flowers budding and coming into full bloom, the changing fragrances that waft between the trees through the day and night, are all a part of an intricate and unparalleled show. Many birds and animals arrive precisely during specific stages of this grand show: these visits usually coincide with the appearance of a specific flower or fruit, or the formation of some seed that holds within it the story of its species.

There is never a particular moment when one can say that a certain tree has begun to flower; one suddenly notices that a Celtis Tree is flowering. Some weeks earlier the leaves had begun to dry and turn brown and yellow, and were dropping off continuously, sounding like a gentle drizzle. The lower branches become bare before the higher ones, and almost overnight there was a bright, pale green new flush and, while the older leaves continued to fall, and new leaves continued to appear, the first flowers happened.

Leaf-fall, first flush, and flowering have all occurred at more or less the same time over the years I've watched. Yet, there ***is*** a precision, even though the contours of such precision may not be a well-defined point or line. The contours are sharpened by the arrival of the birds and the smells, and the sounds of the forest. The barking deer begins to call about the end of January, usually in the evenings. As the air gets humid and warm the forest eagles glide in circles over the valleys, their calls shrill and traveling far. And as the days get closer to the monsoon the ants get busy carrying their eggs to safe-houses and move in seemingly endless rows.

For those who watch the forest show, like so many adivasi peoples, this is a perfect calendar that can be used to go about the business of life. Their social and religious life, their agriculture and festivals, can all be organized within such a framework. Until some point in our history we could all use this calendar, and go about our life in all its wholeness. But quite slowly, but surely, we lost touch with the old calendar cycles, with its leaf-falls and fragrances, and became part of the Gregorian calendar. Tick-tock time. Hours, minutes, and seconds split so proudly into smaller instances of time, apparently real but intangible.

The driving force of the new idea of time is to *hurry* through life. One has to 'save' time. Which means faster travel, pre-cooked food, quick-yielding fruit trees, assorted gadgets at home and office, all guaranteed to allow us to profit with 'extra' time. Time that could have been taken to travel slower, and experience the journey; time to cook and know what we eat; to have time for generations to sit under the same mango tree; and time to write a letter and think while we write.

It is not my intention to negate all ideas of doing things faster. But we have been so fully appropriated by the new and modern notion of time that we have lost much of our links with an older, earthly, order of being in the world. A disconnect that shows up as the present climate crisis, as an inability to realize world peace, and the myriad of disharmonies that we live with. For far too long we have relied on *quick* fixes to solve our problems, elbowing out *time* from the situations that need correction.

Good rhythm implies that we take time to keep time.

MR

An Act that destroys water resources

Pandurang Hegde

The Lok Sabha, in its last session, passed the Water Amendment (Pollution and Prevention) Act 2024. It has amended many clauses of the original Water Act of 1974, which was the first pioneering legislation to protect the water resources of the country.

During the discussions, the Environment Minister Bhupendra Yadav, said 'it is geared towards ease of doing business, and it does not protect industries but helps to generate employment opportunities and that people must be taken along and must be inspired to make progress'. The new Act, he said, will also lead to greater transparency in dealing with various issues related to water pollution.

Water is a common property resource that needs to be harnessed with great care. India has 17 percent of world's population and only 4 per cent of the fresh water resources. Thus it becomes more imperative to conserve, protect and stop those activities that lead to the destruction of this precious, and scarce, resource.

According to the NITI Ayog, the water crisis in the country is more threatening than is perceived, and that fulfilling water needs for our rising population, and to meet the needs of industries and agriculture, is going to be the biggest challenge.

Is this new Act an improvement over the half century of the old Act of 1974? Does this address the concerns outlined by the governmental think tank NITI Ayog? Will the provisions of the Act deter the polluting units that lead to the death of the living ecosystem of free flowing water in the rivers?

The Act of 1974 laid the foundation for institutional framework of establishing Central Pollution Control Boards (CPCB) and State Pollution Control Boards (SPCB) to monitor and prevent contamination of public water resources, like rivers from sewage and industrial effluents. The role of the CPCB is to collect data and setting up technical standards to monitor the water pollution, while the SPCB enforces the compliance with penalties and imprisonment up to six years for serious violations.

These pro-active provisions of the Act were negated by the government by denying autonomy to the CPCB or the SPCB, low grants to implement the legal proceedings and lack of human resources to monitor the large scale of polluting units that came with industrialization. The failure of the Act is visible across the country when we see that the rivers that we worship turned into sewers.

According to the CPCB, 46 per cent of the 603 rivers in the country remain polluted in 2022. The Jal Shakti Ministry admitted in the Lok Sabha that the second most polluted river is Sabarmati, in Gujarat, hailed as model of development for entire country. The second most polluted river in the country after Cooum River in Tamil Nadu. Obviously, irrespective of the political ideology of state governments, the Water Act of 1974 has utterly failed to address the issue of pollution and contamination of fresh water resources in the country.

Logically, the amendment should have addressed these challenges and incorporated provisions to deter any further degradation of the water resources. Unfortunately, the Water Act of 2024 has not only diluted the provisions but has taken away the autonomy of the state government by introducing a clause to override the decisions of the SPCB in specific cases.

The most regressive element of the amended Act is exempting certain industries in discharging waste water and doing away with imprisonment for violations and putting fines from Rs 10000 to Rs 15 lakhs. Thus anyone can get away with discharge of effluents into to the river after paying the fine! In fact during the five decades the old Act was in existence there was not a single case of imprisonment for violations.

The amendment is supposed to help in generating employment. Let us take the case of West Coast Paper Mill situated in Dandeli, in Uttara Kannada district of Karnataka. This employs 2500 people,

of which half are temporary labour, but the mercury that it dumps directly into the Kali river destroys the livelihood of 3 lakh people downstream. This is the reality check of most of rivers in India.

In a landmark judgment in Delhi Water Supply and Sewage Vs State of Haryana the Supreme Court said ‘water is a gift of nature, human hand cannot be permitted to convert this bounty into a curse’. Recent amendments to the Forest Conservation Act and Water Act dilute the legislation favoring industries with the sole objective of ‘ease of doing businesses’. It has profound impact on the lives of millions of people and other forms of life.

Ironically the whole country witnessed the mesmerising ‘ *pran pratishta’* ceremony performed by our beloved Prime Minister bringing life into the innate idol of Ram, whereas there was no coverage when his own government enacted an Act that has led to ‘*pran dand’* or death penalty to destroy life giving water!

We need to heed the advice of Gandhi who said’“The earth, the air, land, and the water are not an inheritance from our forefathers but on loan from our children. So we have to handover to them at least as it been handed over to us.”
Are our government and people willing to follow this advice or they want to live in illusion that these Acts are really for betterment of larger society?

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Battered by climate change, Central India's forest products are disappearing

They are crucial to millions of people and a vast Rs 2 lakh crore economy. But with unpredictable rains and extreme temperatures, their yields are falling.

Mridula Chari

Saraswatibai Tekam is one of 1,200 residents of Waghdara, a hamlet in Maharashtra's Yavatmal district. The settlement is at the fringe of a dense, dry deciduous forest in a region known for its increasing population of tigers. Avni, a tiger, made national news some years ago for killing 13 people in this area of Yavatmal before she was shot in 2018.

Waghdhara's residents, like most forest-dwelling communities in India, rely substantially on the forest for an income. Depending on the time of year, residents harvest non-timber forest products, or NTFP, such as mahua, gum, honey, and wild vegetables, which they either sell at nearby market towns or consume themselves. The village has been granted "community forest rights" under the Forest Rights Act of 2006, which recognises its rights to access these resources.

On a cool July evening last year, Tekam and other members of a self-help group in Waghdara gathered at her house to talk about changes they had been observing in the forest. The only man present, a husband of one of the members, sat out in the verandah, clearly apart, but keenly interested in the discussion.

The women presented a long list of changes that alarmed them. Every alternate year, mahua flowers and seeds, from which edible oil and country liquor are made, now appeared in far smaller quantities than they did earlier. Charoli, or chironji, fruit thrived for some time, but were then typically destroyed by unseasonal summer rain. Their trees lived only four or five years before succumbing to disease. The price of gum, called dinka in Marathi, had decreased because the trees that people tapped yielded poor quality black gum, not clear gum.

Waghdara isn't alone in experiencing these changes, and its residents aren't the only ones who are worried.

Saraswatibai Tekam lives in Waghdara, in Maharashtra's Yavatmal district. Its residents, who rely substantially on the forest for an income, have seen a steady decline in forest products. Photos: Mridula Chari

Between July and August 2021, I travelled across six villages in eastern Maharashtra – in all of them, people reported significant changes in how and when vital trees flower and fruit. This uncertainty in the annual patterns of these forest crops impacts locals' ability to plan for their crucial summer income, when other work is unviable.

"There are more than 500 mahua trees around our village," said Nailabai Tekam, 52, president of a self-help group in Awalgaon, a village 40 kilometres away from Waghdara. "Every year, some would yield more flowers and others less. But in my entire life, I have never seen the numbers fall so low."

Amit Kulkarni, founder of the Navi Ummed, an organisation in Yavatmal's Pandharkavda town that works with local communities to strengthen their access to community forest rights, echoed this observation.

"Over time, we have seen fewer new trees and the old ones do not yield as much," he said.

These changes have occurred as the region, part of Central India, has witnessed massive shifts in climate patterns. A 2017 study by Roxy Mathew Koll of the Indian Institute of Tropical Meteorology, published in *Nature*, found that there had been an increase of between 10% and 30% in extreme rainfall events in Central India between 1950 and 2015. (Both insufficient and excessive rain can damage forest products.)

Maharashtra also saw significant hailstorms, which are damaging to crops and forest products. A 2017 study in the Indian Meteorological Department's journal *Mausam* found that from 1981 to 2015, the largest frequency of hailstorms in one season happened in Maharashtra in 2014, which saw 11 such storms between February and April.

There has been very little research into how the quality and yield of forest products in Central India has changed against this backdrop of a shifting climate.

This is despite the fact that the problem affects a vast population across Central India. According to a recent study by Bengaluru-based Ashoka Trust for Research in Ecology and the Environment, the residents of around 60,000 villages in Madhya Pradesh, Chhattisgarh, Jharkhand, and Maharashtra, an estimated population of 6.26 crore, are eligible to claim community forest rights under the Forest Rights Act of 2006, which includes the right to collect forest products. (The law grants rights over "minor forest produce", which refers to products of plant origin, as well as other products, including some of animal origin – the term "non-timber forest products", or NTFP, refers to the broader category.)

In one significant study, the scientist Seema Yadav surveyed the impact of climate change on non-timber forest products in two forested areas in Hoshangabad and Madla districts in Madhya Pradesh.

As part of her research, conducted between 2013 and 2018, Yadav interviewed 10% of the collectors of such products in eight villages. Around 79% of them said that rainfall had become irregular, though some felt it had decreased and others that it had increased.

The respondents were more uniform in their perception of declines in tree populations.

Yadav found that "91% of the household heads were of the opinion that number of tree species had declined over the years", while 86% felt that the number of healthy fruit-producing trees of important forest product species had reduced.

From her own measurements, Yadav found that the heights and girths of several species of trees were declining. Some trees in Sohagpur, such as mahua and satinwood, did not have girths of more than 140 cm when measured at a standard height of around four-and-a-half feet – this girth was only in the mid-range for the species. Almost half of all flame of the forest plants appeared in the seedling stage, and only 4.34% were in the highest ranges of growth. Yadav explained to *Scroll.in* that such observations indicated that there were fewer older trees, or that the ones that survived were unable to grow to their previous size.

For the millions of people, typically from Adivasi communities, who depend on forest products, these changes can hurt an essential part of their annual earnings.

It also has a broader effect: when funnelled through middlemen, the products feed an estimated Rs 2 lakh crore economy that is spread throughout India. They serve as raw material for medicines, cosmetics, food, oils, and other essential items.

Chironji seeds are among the common forest products collected in Central India. Residents of Waghdara said that now the fruits thrived for some time, but were then typically destroyed by unseasonal summer rain.

This year, as an unprecedented heatwave swept India, with March being the hottest since the Indian Meteorological Department started recording weather data in 1901, many forest crops wilted.

“This year, we bought a little more than half of the gum that we usually get,” explained Julfikar Jiwani, a gum and honey trader in Kinvat town in Nanded district. He is one of only four traders in Kinvat who deal with non-timber forest products.

He sells gum to traders from Adilabad in Telangana, which is 53 kilometres away. Those traders bottle the gum and sell it ahead to companies that use it in medicines or food products.

Jiwani explained that he usually buys around 15 quintals of dinka in the two months that it is harvested. This year, he was able to buy only eight quintals.

The rate he pays for it also changed. From Rs 250 per kilogram last year, he bought gum at the rate of Rs 300 per kilogram this year because the yield had reduced.

The poor attention paid to the root causes behind these changes is unsurprising, given that those who gather the raw materials on the ground are largely Adivasi women, and that the work of collecting forest products is often written off as “women’s work”.

“Men?” Saraswatibai Tekam scoffed. “They don’t come with us – they say, ‘it’s too hot.’” The group burst into loud laughter. Laughing herself, Tekam leapt to her feet to mimic morning conversations. “In the mornings, when they’re snoring loudly, four or five women say to each other, ‘let’s go to the jungle, ladies’, and we go. What do the men say? That this is women’s work.”

Wheeling around to point at the suddenly alarmed husband of one of the attendees, she declared, amid more raucous laughter, “You ask him if he ever does anything in the forest. Though he is so young, he still sends his wife instead.”

While the effects of climate change on forest products are itself worrying, what is also alarming is the scant attention that is being paid to the problem.

Research into the problem of climate change in forests often relies on computer-based models to predict the impacts of the change. Such studies use statistical information drawn from satellites, such as data on tree cover, leaf type or atmospheric carbon, to predict how climate change will affect large areas of land over long periods of time. These models are useful for planners, who need to draw up strategies to create buffers against high-impact changes.

However, these studies often do not collect field data, such as the number of species of trees on a given piece of land, or the shifts in seasons for flowering and fruiting of plants. Few researchers “are interested to work physically in forest areas,” said Yadav.

Because substantial field research has not been carried out in preceding decades, vast amounts of data, including on the kinds of changes Tekam and her friends and relatives observe every year, has been lost. This has serious implications for future research.

Yadav cited the example of Sterculia urens, a tree that grows in isolated areas or in hilly terrain in Central India. The tree produces valuable gum that is commonly used in food and beauty products. Yadav explained that the number of Sterculia trees seemed to be declining, but that there was no base level data of how many individuals there were in the first place. This made it impossible to quantify their loss, or determine how numbers might fluctuate in increasingly erratic weather.

Thus, when the phenology, or life cycle, of a species shifts dramatically, states often cannot draw up backup plans to shield citizens from the economic impact of this change.

“We can say that an absence of data about the changes is contributing to an alarming phenomenon where the composition of forests is changing, and we do not have adequate information about it,” said R Venkat Ramanujam, a researcher with ATREE, who has studied the formal and informal markets for tendu in eastern Madhya Pradesh.

Residents of the six villages this reporter visited were keenly aware of changes in weather patterns and forest produce yields in at least the last decade. They said, for instance, that the monsoon itself had changed: instead of steady rain through the months of June to September, they had begun to witness long dry spells punctuated by intense rainfall. They reported that unseasonal rains affected forest products in the period between February and May, just before the monsoon, with mahua flowers getting sodden in some years, or gum yield declining in other years.

Roxy Mathew Koll, too, noted that heavy rainfall days were increasing, even as there was an overall decline in the monsoon. A study by Koll found that between 1950 and 2015, there have been 268 reported floods in India, which affected around 825 million people, left 17 million homeless and killed 69,000 people. The report observed that this destruction is concentrated in parts of Central India.

"The rise in extreme rainfall events are over a region where the total monsoon rainfall is decreasing," the paper noted. Further, it added, "The fact that this intensification is against the background of a declining monsoon rainfall makes it catastrophic, as it puts several millions of lives, property and agriculture at risk."

The overall decline in rainfall is leading to a long-term trend of "browning" of national parks, referring to vegetation turning brown due to a lack of rain. "This is happening even in forest areas where other factors such as encroachment don't arise," Koll said.

This observation is key: many, including forest dwellers themselves, assume that their own unsustainable harvesting practices are the reason behind the decline in forest products, Yadav said. This includes practices such as cutting too many branches, tapping too deep for gum or collecting all the fruit crop and leaving no seeds behind from which the forest can rejuvenate.

Yadav pointed out that forest dwellers often have very few choices of livelihood, and that to blame them is to make the mistake of overlooking the economic pressures that these communities face, and the effects of far more sweeping factors, such as climate change and the growth of extractive industries.

Nailabai Tekam said there are around 500 mahua trees around her village of Awalgaon. "Every year, some would yield more flowers and others less. But in my entire life, I have never seen the numbers fall so low."

People who depend on forest-based livelihoods generally have small or no tracts of agricultural land for other sources of income. This means that they depend on a limited number of forest species for an income through most of the year.

Even forest dwellers who are attuned to the life cycle of trees are obliged to begin collections early, and end them late, because of demand by traders. Those who are unwilling to harvest before or after it is viable to do so, simply do not earn as much in these largely informal markets, Yadav said. Forest dwellers have little bargaining power because they have no access to storage facilities, and so are forced to accept the rates traders offer for products on the days that they travel to local market towns to sell them. The Central government attempted to bring some structure to this market by announcing a minimum support price for certain minor forest produce in 2011. Over 2020 and 2021, the Centre added 37 new forest products to the existing list that would be covered by a minimum price. But without the infrastructure of formalised markets, people have not yet seen the benefits of this proposal.

Even as forest dwellers struggle to eke out a living, large infrastructure projects are expanding deeper into forests.

In 2019, a study in *Resources Policy* that looked at 314 Indian districts found that on average, those that produced minerals such as coal, iron, bauxite, dolomite, limestone and manganese, lost 350 square kilometres more of forest cover than districts that did not have these minerals. The

correlation was even higher in coal, iron and limestone-producing districts, which on average lost 450 square kilometres more of forest cover than districts without them. A 2022 study in the *Journal of Environmental Management* looked specifically at Odisha, and found that in the two decades between 2000 and 2019, some districts in the state lost more than 20% of forest cover to mining.

Mapping out these changes precisely is a challenge, because the Forest Survey of India, which tracks tree cover and the state of forests annually, uses a definition for "forest cover" that scientists consider to be inaccurate. Any area that has more than 10% tree cover in a one-hectare area is considered to have forest cover. In practice, this means that, in many places, land with coconut and tea plantations, parks in urban areas, and wastelands are classified as having forest cover. So when Forest Surveys claim that the country has seen an increase in forest cover, they paper over the fact that India's forests are in fact, deteriorating.

In the slow-burning heat of March, Nailabai Tekam wakes up each day before dawn, cooks for her family and then, with a small group of women, heads into the forest adjoining Awalgaon to search for the distinctive cream flowers that mahua trees shed in these months. Like Waghdara, Awalgaon has also been granted community forest rights under the Forest Rights Act.

For years, she was able to collect 90 quintals of flowers each season, between February and April, she said. But the number of flowers has reduced in the last decade or so, down to around just 18 quintals in 2021. She and other women must also walk farther to collect the same amount.

She explained that it frequently rains just after the mahua tree "sheds its flowers, which means we cannot collect them", because the rain destroys the delicate flowers. Though she and others who sell mahua flowers now get Rs 50 per kg in the local market, up from Rs 10 five years ago, the quantities of flowers they collect are so low that few are able to earn as much as before.

Awalgaon, like Waghdara, is a Kolam village. Kolams are classified in Maharashtra as a particularly vulnerable tribal group. Around 10% of the 750-odd groups listed as Scheduled Tribes across India are classified as particularly vulnerable. These groups have historically had more limited access to resources than other Scheduled Tribe communities, largely because of their isolation. Along the Maharashtra and Telangana border, where most Kolams stay, their hamlets are set apart from main panchayat villages, and often have poor road access. Inhabitants usually have limited sources of income.

One Kolam village, Kajipod in Nanded district's Kinvat block, did not have a road until around five or six years ago, when the then governor of Maharashtra "adopted" it and had it built, along with a water tank. Before that, residents had to make a ten-kilometre trek across rough country roads to reach the nearest market to sell their products.

In Kajipod, Pooja Tekode, 28, spoke of how mahua, tendu, and chironji nut yields had reduced, while root crops had all but disappeared. She has also noticed the decline in gum yields.

"If there is not enough heat, the gum turns black and its quantity reduces," Tekode said.

"This year, even though a trader from Hyderabad wanted to buy white gum, we were unable to supply this to them until the end of April," explained Amit Kulkarni, whose organisation works with residents of Kajipod and several other villages in the region. Normally, gum begins to flow in

February through April, or even into May. In 2022, unseasonal rains in February and March lowered temperatures, which reduced the amount of gum that trees yielded and also lowered their quality. “When traders want products, they are not available, and sometimes, even though they will buy at high prices, people are unable to collect enough to supply to them,” Kulkarni said.

A hillock in Kajipod from which residents regularly gather forest products. One resident spoke of how mahua, tendu, and chironji nut yields had reduced, while root crops had all but disappeared.

The economic impact on residents of Kajipod has been severe. Men in the hamlet have traditionally not migrated for work – the closest big towns are hundreds of kilometres away and residents fear that if they migrate that far and don’t find enough work, they might lose their savings. “We don’t want to break our savings, but we still have to eat,” said Saraswatibai Tekam, a resident of Kajipod. (She shares a name with Saraswatibai of Waghdara.) Now however, in the face of increased uncertainty, men have begun to travel long distances for construction work, while women work longer hours as temporary agricultural labourers on fields owned by others.

The problems caused by climate change also serve to exacerbate the forest dwellers’ existing struggles with the government and society at large.

Shakuntala Atram, 35, lives right next to Yavatmal’s Tipeshwar Wildlife Sanctuary in the hamlet of Bhad Umri. Since the region was declared a protected sanctuary in 1997, residents of the hamlet have been denied access to the forest. The Forest Department became stringent about this around a decade later, when the population of tigers began to increase in the sanctuary. Locals said that if authorities catch them inside the forest, they fine them and even threaten legal action.

Atram, like others in the hamlet did not know about the Forest Rights Act, which empowers people to claim rights to forest resources. As people living adjacent to a forest area, they could have continued to visit the forest without legal risk, had their rights been recognised by the Forest Department.

Not knowing about and securing their rights has left them dependent on the government. Their main concern, when this reporter visited, was to gain access to a Central government scheme for cooking gas, since they were barred from collecting firewood from the forest now. Local officials at the nearest town had ignored all their requests to be registered for the cooking gas scheme.

There are other losses, beyond firewood: some residents spoke of losses of knowledge and experience, and their attempts to come to terms with them.

“These days, I buy my children chikoo and tell them that it is tendu because they taste alike,” said Atram, with a rueful smile. “They will never know any better.”

Residents of one village spoke of a decline in their health after it was relocated by the forest department, following the creation of the Tipeshwar sanctuary. Savitribai Soyam, 55, an otherwise cheerful woman, recalled her younger days in the original settlement, Maregaon.

“When I could go to the forest, I could eat whatever I wanted,” she said. “Some days we would catch fish, other days I would make rotis from mahua flowers, and because the air and water were good, we never fell sick.” Now, she and her family struggle to get by in the new village, where the closest forest area is a mixed forest plantation of 80 acres created by the Forest Department, which has limited tree species. Soyam and her family largely rely on subsidised government rations to survive. “We are getting sick eating this ration food,” she said. “There is no variety, no goodness in it.”

Her mother-in-law, Parvatabai Soyam, 85, cannot hear well anymore. When their village was being shifted from Tipeshwar, she refused to leave at first – it was only after the family coaxed her that she agreed. As is typical in state rehabilitation efforts, they have been thrust into impossible transitions to a new way of life, now centred around agriculture instead of forestry. “We kept extra seeds when we shifted here,” Soyam said. “But they don’t grow at all here.”

The soil in the new village is hard and rocky, unlike the dense jungle area residents are used to. The settlement, which is by an arterial road, frequently floods and gets waterlogged, leading to an increase in illnesses.

“We used to be able to collect this much charoli,” another name for chironji, Soyam said, spreading her arms wide to indicate the size of a bundle that she said would weigh around ten kilograms. “Such species are barely there in this forest. Nothing else tastes like a poli made of charoli or mahua. We were able to make what we wanted when we wanted. ”

Now, she explained, they are more prone to health risks because their surroundings are more polluted. “We can’t do anything without needing injections” from the local public health centre,” she said.

Not everyone can access, or chooses to access, allopathic medicines. Many rely on vaidus, or traditional physicians, like 70-year-old Tukaram Tekam, who collects and prescribes herbal medicines. At the end of an almost two-hour conversation about his vast expertise, the many decades that he has been practicing medicine, and the plants that he used to be able to use from the forest, but can no longer find, he turned the conversation back to the question I had asked him first, about the weather. “You are right that the weather is changing, that the rains are coming when they should not and that it is too hot or too dry through the year,” he said.

And then he asked a simple question with great weight: “Why is this happening?”

There is no simple answer. But there are some efforts underway to try and ensure that the problem is understood, so that it can be tackled.

In April 2022, Pooja Tekode, the resident of Kajipod, received a fellowship from the Navi Ummed to collect information about forest products, the implementation of the Panchayat (Extension of Scheduled Areas) Act, and the losses people have faced due to unpredictable weather.

Pooja Tekode (left) has a fellowship to collect information about forest products, the implementation of the Panchayat (Extension of Scheduled Areas) Act, and losses people have faced due to unpredictable weather.

Tekode, like others in the region, has experienced these changes first-hand. As recently as 2017, she alone was able to collect up to 25 kilograms of mahua flowers in just two weeks, she said. Since 2020, however, entire households consider themselves lucky to gather just between ten and 12 kilograms over a month. As for gum, in previous years, people were able to tap trees for it daily – but this year has been so dry that her neighbours do not even check the trees for gum more than

once every few days. And though some parts of Yavatmal had a glut of chironji, Tekode's village had an almost negligible yield.

The information that Tekode collects will be a first step towards raising awareness about the problem among locals. "We have a lot of knowledge among ourselves, but Adivasi people do not get to hear of each other's knowledge," she said. "I am doing this for my community, so that they become more aware of climate change and so that we know what is happening to us."

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यहां बिना पैसे के खेती के काम होते हैं

बाबा मायाराम

छत्तीसगढ़ के गरियाबंद जिले का छोटा सा गांव है कामेपुर। य़हां खेती में काम करने के बदले नकद पैसों का भुगतान नहीं करना पड़ता। और ना ही गांव में घर बनाने, शादी-विवाह और सार्वजनिक कामों में पैसों की जरूरत है, बल्कि यह सब काम सामूहिक रूप से एक-दूसरे की मदद से किए जाते हैं।

हाल ही मैंने गरियाबंद जिले के कई गांवों का दौरा किया। और ऐसी गांवों की एक-दूसरे को मदद करनेवाली और जोड़नेवाली अच्छी परंपराओं के बारे के बारे में जाना। बैठिया, दाहियान और टिकान ऐसी ही परंपराएं हैं, जो गांव-समाज और समुदाय को जोड़ती हैं।

कामेपुर गांव के उदयराम नेताम कहते हैं कि गांव-समाज के अधिकांश काम हम मिल-जुल कर करते हैं। बैठिया यानी बैठे हुए, जिनके पास समय है, वे दूसरों की मदद के लिए तत्पर रहते हैं। जैसे अगर कोई बुजुर्ग है, अकेला है, बीमार है, तो उसके घर के काम गांव के लोग मिलकर करते हैं। इसके बदले में उन्हें मजदूरी का भुगतान करने की जरूरत नहीं है। अगर संभव हो तो चाय-पानी और भोजन की व्यवस्था की जा सकती है।

वे आगे बताते हैं कि ऐसे कई काम हैं, जो गांव में बिना पैसे के किए जाते हैं, जैसे खेती में मेडबंधान करना, फसलों की कटाई करना, पूल (गट्ठर) बांधना, निंदाई-गुड़ाई करना, खेत में गोबर खाद डालना, घर बनाना और उसकी मरम्मत करना, शादी-विवाह में मंडप बनाना, जलाऊ लकड़ी लाना, दोना-पत्तल बनाना, खाना बनाना इत्यादि।

इस इलाके में कार्यरत प्रेरक संस्था के कार्यकर्ता रोहिदास कार्यकर्ता बतलाते हैं कि ऐसे कई सार्वजनिक काम होते हैं, जो व्यक्ति अकेला नहीं कर सकता, ऐसे काम भी बैठिया लोग मिलकर करते हैं। वे ऐसे कामों में सहभागी बनते हैं, और उनको आसानी से कर देते हैं।

इसी प्रकार, एक परंपरा दाहियान की भी है, जिसमें एक दो लोग बारिश के दिनों मवेशियों को चराने के लिए जंगल-पहाड़ में ले जाते हैं और वहीं झोपड़ी बनाकर चार महीने रहते हैं। इसके बदले में वे कोई नकद पैसे नहीं लेते हैं बल्कि दूध देनेवाली गाय या भैंस का आधा दूध लेते हैं, और आधा दूध गाय मालिक को दे देते हैं। इस प्रकार, आदान-प्रदान से दोनों का काम चल जाता है।

हाल ही में जब मैं कामेपुर गांव गया, उस समय गांव के भागचंद नागेश और उनकी पत्नी सुखवती पहाड़ व जंगल में गाय-बैल चरा रहे थे, उनकी पत्नी सुखवती भात (चावल) पका रही थी। भागचंद, गाय के लिए रस्सी बना रहे थे। उनके पास 18 भैंस थीं, जिन्हें वे पहाड़ पर चराने का काम कर रहे थे। बारिश होती है तो वह झोपड़ी में बैठकर रस्सी बनाने का काम करते हैं।

भागचंद नागेश ने बताया कि वह पहाड़ पर बारिश के 4 महीने तक रहेंगे और मवेशी चराएंगे। यहां जंगल में मवेशियों के लिए चारा-पानी पर्याप्त है। उन्होंने बताया कि यहां कई तरह की घास होती है, जैसे टाटीबंद, पंडरीसुकला, करपीबंद और भुरभुसी इत्यादि। यह घास मवेशियों के लिए पौष्टिक होती है, और इससे वे दूध भी ज्यादा देते हैं, जो गांवों के आसपास नहीं मिलती है।

सामाजिक कार्यकर्ता रोहिदास यादव कहते हैं कि बारिश में गांवों के आसपास मवेशी चराना मुश्किल है। एक तो उस समय खेतों में धान होती है, जिन्हें मवेशियों से बचाना जरूरी है और दूसरे मवेशियों के लिए खेतों में फसल लगी होने के कारण पर्याप्त चारा भी नहीं होता। जबकि जंगल में मवेशियों को स्वतंत्रतापूर्वक घूमने, चरने, पानी पीने और बांधने की सुविधा होती है। पहाड़ों पर इसके लिए बहुत जगह होती है। पेड़ों की

छालों,पत्तों लताओं,रेशों से रस्सी भी बनाने का काम भी चलता रहता है, जो मवेशियों को बांधने के काम आती है।

जशपुर जिले में उरांव आदिवासियों में टिकान परंपरा है, जिसमें शादियों में लोग उपहार के तौर पर सब्जी व अनाज लेकर आते हैं और सब मिलकर खाना पकाते हैं और खाते हैं, जिससे शादी वाले घर पर अतिरिक्त आर्थिक बोझ न पड़े। ऐसी एक शादी में मैं भी शामिल हुआ था।

प्रेरक संस्था के प्रमुख रामगुलाम सिन्हा कहते हैं कि गांव में पहले से सामूहिकता व एक-दूसरे की मदद करने की परंपरा है, हमने इसे पहचाना और आगे बढ़ाने की कोशिश की है। सामूहिकता और एक-दूसरे की मदद से जंगलों का संरक्षण, विविधता वाली देसी बीजों की खेती, टिकाऊ आजीविका की दिशा में काम किया है। वन अधिकार कानून के माध्यम से जंगलों का संरक्षण कर रहे हैं, जिससे लोगों को दीर्घकालीन आजीविका मिल सके और जंगलों को भी हरा-भरा किया जा सके।

वे आगे बताते हैं कि छत्तीसगढ़ की सामूहिक साझा संस्कृति बहुत समृद्ध रही है। यहां अन्य लोगों के अलावा, आदिवासियों की कई प्रजातियां, भाषाएं, उनके लोकनृत्य व लोकगीत हैं। विविधता वाली खेती है, सैकड़ों प्रजाति के देशी बीज हैं, खेती की पद्धतियां हैं, बिना प्रकृति को नुकसान पहुंचाने वाली जीवन पद्धतियां हैं, जिससे काफी कुछ सीखा जा सकता है। यह सब अमौद्रिक व सामूहिक व्यवस्था में ही विकसित हुई हैं। आदिवासियों की जीवनशैली अमौद्रिक होती है। उनके जीवन की अधिकांश जरूरतें खेती, जंगल व पशुपालन से पूरी हो जाती हैं।

कुल मिलाकर, यह कहा जा सकता है कि छत्तीसगढ़ में बिना पैसे के लेन-देने वाली अर्थव्यवस्था व अच्छी परंपराएं, एक दूसरे को जोड़नेवाली और प्राकृतिक संसाधनों को बचानेवाली हैं। आज के युग में जब बिना पैसे के कोई भी काम करना मुश्किल है, ऐसे ग्रामीण परंपराएं अनूठी हैं, प्रेरणादायक हैं।
इससे एक बात और कही जा सकती है, किसी भी व्यक्ति की मदद सिर्फ आर्थिक रूप से नहीं की जा सकती, बल्कि समय देकर भी की जा सकती है। समय भी मूल्य है। सहभागिता भी मूल्य है। दूसरी बात, गांव-समाज की सामूहिकता और एक-दूसरे की मदद से न केवल काम किए जा सकते हैं, बल्कि जंगल, खेती और जीवनदायिनी प्रकृति की क्षमता को भी बचाया जा सकता है। दीर्घकालीन व टिकाऊ आजीविका हासिल की जा सकती है। जलवायु बदलाव के दौर में इसकी जरूरत पहले से ज्यादा बढ़ गई है।

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Where the Mind is Without Fear

(In honor of Rabindranath Tagore)

Ashish Kothari

Where Amazon is an endless rainforest, not an endless orgy of shopping
Where the Cloud is lavishly rain-bearing, not a data-loaded aid to snooping
Where Reliance is what you have in your friends, not some capitalist's hand in your pocket
Where Apple is a delicious fruit for all to adore, not a company with a rotten core

Into that world, my Indigenous friend, lead us

Where Shell is that wondrous thing we find on the seaside, not a corporation that tears up the oceans
Where Twitter is what birds do in the sky, not the playground of the chatterati
Where Jaguars are cats stalking their prey in jungles, not knocking down pedestrians on city streets
Where Microsoft is the gentle touch of a mother, not a monopolistic profit machine

Into that world, my ecofeminist friend, lead us

Where my Face is a Book, but not to be sold to surveillance regimes
Where Musk is a Himalayan deer's fragrant gland, not a fat-cat helping the rich to escape to Mars
Where Gautam is a teacher of compassion, not the head of a rapacious Indian corporation
Where Smart is 40000 years of Australian aborigines living with the earth, not what IBM wants to make the planet

Into that world, my young climate justice friend, lead us

Where religion at its radical core is about compassion, not a dogmatic theocratic fashion
Where power is everyone's birthright, not the prerogative of a centralized state
Where intelligence is what nature has given us, not something forged in labs
Where wealth is a measure of wellbeing, not what puts you on the Forbes (500) list

Into that world, my 'disabled' friend, lead us

Into that world without fear and dread, let us all lead and be led,
Into that world, only a *seeming* impossibility, let us now boldly tread.

Ashish Kothari is with Kalpavriksh, based in Pune.

The Pulicat Lake

Satheesh Muthu Gopal

I was fortunately in Chennai when my ornithologist friend, Mr Raveendran, phoned me and asked if I could join him to visit the Pulicat lake the next day. Pulicat was one of my dream locations since I started birding, and I immediately agreed. The next day we met before sunrise and reached the spot, and hired a boat and sailed into India's second-largest salt lake. It was mid-March. The perfect weather welcomed us with gulls, terns, and waders flying around. Plovers and stints were foraging on the shores. Ten minutes later, we were thrilled to see a long pink horizontal line, floating in the lagoon. We sailed towards this wonderful sight and came to a mass of hundreds of Greater flamingos and Lesser flamingos busy foraging in the shallow waters; from a distance it looked as if they were floating.

Some centuries ago the Pulicat Lake was covered by mangrove forests. Due to the destruction of mangroves, and industrialization, the biodiversity of this brackish water was badly impacted. As many marine species use mangroves as nurseries during spawning and breeding phases, the destruction of this habitat impacted marine species like the tiger prawns and mud crabs. The local people are dependent on these species for their livelihood. Despite some restoration efforts that have been happening over the years, there are increasing threats. The proposed expansion of the Kattupalli port will destroy the marsh wetlands which drain the excess fresh water into the Bay of Bengal and the Pulicat salt lake. Also, the expansion will encroach into the sea due to the dumping of sand. All this will lead to the erosion of the natural barriers of Pulicat and impact biodiversity on a large scale.

During our visit, we were able to find many water birds. We were lucky to spot the Greater Flamingo and the Lesser Flamingo together in the lake. Unlike Greater Flamingos, the Lesser Flamingos are very rare to be seen in Tamil Nadu. These are the smallest flamingo species in the world and make a stopover in Pulicat lake, though not every year. They are very beautiful with a darker color compared to the Greater Flamingos. The dark bill and gleaming red eyes are their distinguishing features. The Lesser Flamingos breed in the Rann of Kutch, in Gujarat, and can be seen in thousands in Mumbai.

When we approached the seashore, we saw birds foraging on the sand. The Eurasian Oystercatcher can be identified unmistakably due to its unique colors. This migratory bird travels from the northern hemisphere to Africa and India for the winter. These birds are very skilled in picking the mussels from the seashore and taking the flesh out of the shell to feed, thanks to the well-evolved broad bill tips to open the mollusks. We saw three of them on that day along with other waders. The Pulicat lake is suitable for many bird species as it has shallow water, mudflats, mangrove trees, and also the seashore. This perfect lagoon welcomes the winter birds with abundant food sources.

The sand barriers and small islands of the lagoon are the prominent places for birds like terns and gulls to gather. We were able to identify several tern species like Lesser Crested Tern, Greater Crested Tern, the Common Tern, and the Caspian Tern. Also, in the same location, along with terns, we sighted the Pallas Gull, the Brown-headed Gull, and the Slender-billed Gull. The terns kept on flying together above the sand spits and landed together. These activities went on for quite awhile. We stopped the boat in the shallows and switched off the motor to avoid the noise. The boat swayed gently in the water and there was no other sound in the mid-afternoon, except bird calls.

When the terns flew together we heard a fluttering sound which stopped when they landed together. We were amazed to see the activity for some time and moved from the place.

The Eurasian Curlew was foraging along with Flamingos in the shallow water. The thick long curved bill is easily noticeable. The majestic bird found a perfect lowland coast to search for food. When the Eurasian Curlew was feeding on invertebrates, the Flamingos were feeding on algae. We also found a Western Reef Heron with slaty grey plumage. Though the bird has a differently coloured plumage, the slaty grey is helpful to identify the species. When they are white in color it looks like the Little Egret. While coming back to the shore we sighted many waders like Common Redshanks, Plovers, Sandpipers, etc. The fishermen were busy drying up the fish on the shore. The lagoon is a livelihood for fishermen and a perfect habitat for the birds.

However, the future of Pulicat lake relies on the policymakers. Whether they protect the Lake or help to expand the Kattupalli port for Adani is a big question mark.

Satheesh Muthu Gopal is a naturalist and freelance writer

Protesting the destruction of forests: *Field notes from Gadchiroli Central India*

Vijay Sambare

Gadchiroli is an adivasi dominant district from the Vidarbh region of Maharashtra. The district is surrounded by hilly terrain of the Eastern Ghats, divided between the frontiers of Chhattisgarh and Maharashtra. Lush semi-evergreen forests are a key livelihood resource for local adivasi communities of the Gonds and Madia peoples, both vulnerable groups, and other forest dwellers. However, this landscape is also a hub for mining, with government agencies and mining companies wanting to "manage" this site for mining activities. They have connived to take over this landscape with its rich biodiversity and ancestral domains of adivasi communities, and their bio-cultural heritage.

In 2007, the Lloyds Metals and Energy Private Limited (LMEL) company was given clearance to begin iron ore mining in an area of over 348.09 hectares in Surjagarh village, in Gadchiroli. This decision was taken without any public consultation with the local community, namely the gram sabhas (village councils), as is mandated by the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006, and the Panchayat Extension to Scheduled Areas (PESA) Act, 1996. On 10 March 2023, LMEL was granted environmental clearance to expand its excavation from 3 to 10 million metric tonnes per annum for 25 mining sites. The area being excavated by LMEL for iron ore mining encroaches upon lands granted to Adivasis, as part of their Community Forest Rights under the Forest Rights Act, 2006.

Local communities have a long tradition of worshipping Nature. Surajagad is a sacred mountain for them and the Adivasi people strongly oppose the mining project, which will destroy all their livelihood resources and cultural sites, along with the wildlife that abounds in the region. Many of the forest resources, especially NTFPs like Mahua, Bamboo, Tendu, Teak, Dhawada, Kusum, Ain, etc., are important livelihoods resources for local communitites. The mining project will be hazardous for all these community owned resources.

The Damkondawahi Bachao Sangharsh Samiti and the Surajagad Patti Paramparik Gotul Samiti, and other rights-based groups, have jointly formed a movement led by the Madia-Gond Adivasis, a

people recognised by the Indian government as a Particularly Vulnerable Tribal Group (PVTG). The protest movement advocates against corporate mining in the Etapalli Subdivision of the Gadchiroli District. This protest is led by Lalsu Nogeti, a local lawyer, and his colleague, who are struggling to strengthe the village and forest governance system through village councils (Gram Sabhas). The protest began on 11 March 2023 and continues today. The people have peacefully conducted their agitation for more than 300 days now. However, on 20th November 2023, the Maharashtra police arrested eight prominent Adivasi leaders who were involved in the anti-mining agitation that had been ongoing for 250 days. The local community has continued its protest against the proposed mining project to protect their forest and their existence, and the future generations.

For more details search the link
https://groundreport.in/as-land-bleeds-the-struggle-for-jal-jungle-jameen-in-gadchiroli-continues/

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The little free libraries of Holland : citizens response to budget cuts

Paul Wolvekamp

Waiting for a train might be a cold affair in Holland. For a large part of the year it is likely to be windy, accompanied by rain, hail or wet snow. One longs to get to the warmth of home. However, when one enters one of the bigger train stations, like Utrecht or Arnhem, there is a fair chance that one hears piano music, which warms the soul. In the main hall of these stations, one will find a piano, free to use by anyone who feels like playing a piece. It could be a student studying at one of the conservatories, who is waiting for her train; or a gifted amateur, or even a professional piano player who can spare the time to lift up the spirits of fellow travelers by offering an unexpected 15 minutes of free concert. Such spontaneous and generous gifts of culture add spice to life. [1]

Piano music at Utrecht Central Station

In those same stations, one will find a mini library: a stall with a forever changing variety of books. And again, like the piano music, the books are there to enjoy, free of charge. There is an unspoken agreement that one is invited to select a book and enjoy reading it, in the train or back home, and that one returns the favor by contributing a book or perhaps a stack of books to the same library.

[1] https://indebuurt.nl/arnhem/nieuws/gespot-station-arnhem-centraal-heeft-een-nieuwe-piano-en-zo-klinkt-ie-video~262688/

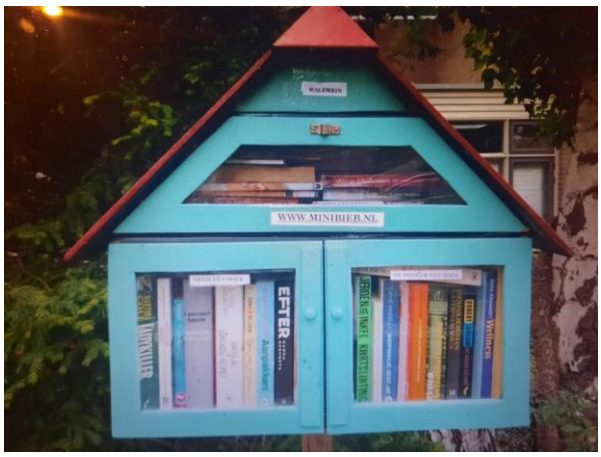
Consequently, one will find a huge diversity of taste displayed in the station mini library: fiction, non-fiction, thrillers, religious treatises, manuals, etc.

In fact, the phenomenon of mini libraries is widespread in the country. They are found in most villages, hamlets, cities, and towns. These are mostly private individuals who start such mini library, inviting passers-by to take a book and to return another book to keep the library well-stocked. This comes at a time when budget cuts by government have deprived many villages their public libraries; these new mini libraries represent a citizens' response. The libraries are also very much a tangible example of a 'shared economy'.

The mini libraries appear in all shapes and sizes: varying from a waterproof closet, to an old crate that earlier contained apples, nailed to the wall of a private house, the local pub, a church or an old oak tree. They are often painted in all sorts of colors. Most owners really make an effort to make these libraries attractive to look at, with the collection of books well maintained. Besides books, the mini libraries quite often also offer books and games for children.

Some 10 years ago, Mirjam Goudswaard, in the province of Zeeland, started the first private mini library. She got inspired after reading a newspaper article about the Little Free Library in the US, ''... It was the time when many libraries were closing, so I thought this would be a great way to offer books in an accessible way." The idea of the Little Free Library came from Todd Bol in 2009. In memory of his mother, a teacher who had just passed away, Todd made a wooden cupboard in the shape of a school building, filled it with books, and stuck a note on it: 'take a book, share a book', and placed it in his front garden. Soon his initiative was taken up, not only in his home state of Wisconsin, but around the world." (Source NRC: article by Titia Ketelaar, 29 September 2023.)

Mirjam Goudswaaard had listed no less than 4000 mini libraries in Holland; with 5-10 new libraries being added to this list every week. She estimates there exist over 8000 mini libraries in Holland alone. (See:https://minibieb.nl/)



Mini library

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हरियाली वापसी की अनोखी पहल

बाबा मायाराम

छत्तीसगढ़ के बलौदाबाजार जिले के एक गांव गबौद में उत्साह और उम्मीद का माहौल है। यह बारनवापारा अभयारण्य के अंदर का गांव है। यह किसी तीज-त्यौहार और सामाजिक कार्यक्रम की वजह से नहीं है, बल्कि वन अधिकार कानून के तहत् सामुदायिक वन संसाधनों के लिए हक मिलने से है।

हाल ही मुझे यहां जाने और इस पहल को देखने का मौका मिला। रायपुर से राजिम और वहां से महासमुंद तक बस से यात्रा की। वहां से प्रेरक संस्था के कार्यकर्ता संतोष कुमार ठाकुर कई गांवों में ले गए। गबौद, चरौदा पंचायत का आश्रित का गांव है। यहां के बाशिन्दे गोंड आदिवासी हैं। इसके अलावा, साहू, पटेल और कोलता भी हैं। दूरदराज का यह इलाका जंगल और पहाड़ से घिरा हुआ है।

सुबह का शाम समय था। उस दिन हवा में नमी थी और जंगल हवा से झूम रहा था। जंगल निर्जन था, पर शांत नहीं था। पत्तों की सरसराहट थी। कीट-पतंगों की फरफराहट थी। मेंढकों की टर्र-टर्र, बारिश से साफ हुई हवा की खुशबू, पेडों की खुशबू थी। पेड़ों के बीच से छनती धूप थी। नदी,नालों व झरने की कल-कल, छल-छल थी। यहां छोटे-छोटे तालाब थे। वहां तालाबों में कमल के फूल खिले थे। पक्षियों का कलरव था। खेतों में किसान थे। धान के कटे पीले ठंडलों के खेत थे। नवापारा नाला और ठाड़घाट नाला बहता था। मछुआरे मछली पकड़ रहे थे। इधर-उधर कूदते बंदरों की टोलियां थीं। कुछ ही देर में हम गबौद गांव में पहुंच गए।

आगे बढ़ने से पहले इसकी प्रक्रिया के बारे में जानना उचित होगा। प्रेरक संस्था इस इलाके में करीब तीन दशक से आदिवासियों व वंचित तबकों के जीवन को बेहतर बनाने के लिए कार्यरत है। वन अधिकार कानून की पैरवी के लिए जागरूकता कार्यक्रम, कार्यकर्ता प्रशिक्षण व छोटी-छोटी पुस्तिकाओं के माध्यम से आदिवासियों की सहायता कर रही है।

प्रेरक संस्था के कार्यकर्ता संतोष ठाकुर बताते हैं कि गांवों में सामुदायिक वन अधिकार हासिल करने की प्रक्रिया लम्बे समय से चल रही है। शुरूआत में इसमें लोग नहीं जुड़ते थे, लेकिन धीरे-धीरे इसमें दिलचस्पी लेने लगे और बैठकों में आना शुरू कर दिया।

उन्होंने बताया कि ग्रामसभा की बैठकों का सिलसिला चलता रहा। सबसे पहले हमने गांव के मुखियाओं से संपर्क किया। वन अधिकार समिति का गठन किया। अध्यक्ष व सचिव बनाए गए। अब तक इस इलाके में 30 गांवों में वन अधिकार समिति का गठन हो गया है। इस पूरी प्रक्रिया में गांववाले जुड़ते गए। सीमा निर्धारण किया। नज़री नक्शा बनाया। इस प्रक्रिया में सीमावर्ती गांवों का सहयोग मिला, क्योंकि उनके गांवों में भी सामुदायिक वन अधिकार के दावा फार्म भरने की प्रक्रिया चलाई थी। 22 गांवों का सामुदायिक वन अधिकार दावा फार्म जमा हो चुका है। 8 गांव में यह प्रक्रिया चल रही है। गबौद गांव को सामुदायिक वन अधिकार मिल चुका है।

गबौद गांव के रामकुमार ठाकुर, बलीराम नेताम, ब्रिजलाल ठाकुर और मेहेमसिंह ठाकुर ने संयुक्त रूप से बताया कि गांव को 634.50 हेक्टेयर का सामुदायिक वन अधिकार को मान्यता दी गई है। यह जंगल वन, जल और खनिज संपदा से भरपूर है। महुआ, तेंदू चार, हर्रा, बहेड़ा, आंवला जैसी वनोपज तो है ही, इमारती लकड़ी भी है।

इस गांव में वन प्रबंधन समिति बनाने की तैयारी है। इसके बाद पौधारोपण व अन्य प्रबंधन के काम करेंगे। जंगल को बचाने और बढ़ाने के लिए भी नियमावली बनाई जा रही है। इसी तरह अन्य गांवों में भी वन प्रबंधन समिति और जंगल को बचाने के लिए नियम बनाने की प्रक्रिया चल रही है।

मोहता गांव के वन अधिकार समिति के अध्यक्ष अंजोर सिंह नागवंशी और सचिव अनुज पटेल ने बताया कि उनके जंगल के आसपास अगर जंगल में आग लग जाए तो गांववाले बुझाने जाते हैं। बारी-बारी से गांववाले जंगल की रखवाली करते हैं। पौधारोपण किया है। आम के पेड़ लगाए हैं। सूखी लकड़ी ही लाते हैं, गीली लकड़ी नहीं लाते हैं।मवेशी व बकरी को जंगल में ऐसी जगह चराना मना है, जहां छोटे पौधे हैं। इसी प्रकार, ढेबा गांव में नियम बनाए गए हैं।
संतोष कुमार ठाकुर का कहना है कि इस पूरे इलाके में जंगल होने के कारण स्वच्छ वातावरण है। उन्होंने बताया कि गांव के कांदावारी व सुनसुनिया नाला और बालम नदी में कई तरह की मछलियां मिलती हैं। हम नदी प्रदूषित न हो और अन्य जलजीवों को नुकसान न हो, इसके लिए परंपरागत जालों से मछली पकड़ते हैं। जंगल को नुकसान न हो इसलिए गांव के लोग जब भी मिट्टी से कंद खोदते हैं तब एक कंद छोड़ देते हैं, जिससे फिर से कंद हो जाए।
यहां कई प्रजाति के पक्षी हैं, जैसे मैना, हरील, चील, बाज, घाघर, चमगादड़, वनकुकरी, तोता, पड़की, लिटिया चिरई, सुई चिरई, मयूर, वनमुर्गी, तीतर, थमकुकरा इत्यादि।जंगली जानवरों में लोमड़ी, लकडबग्घा, कोलिहा, हिरण, भालू, गवर, वन भैंसा, नीलगाय। इस तरह हम जंगल और नदी जैसे प्राकृतिक संसाधनों का संरक्षण करते हैं।

उन्होंने बताया कि सुबह से लेकर शाम तक जंगल की चीजों का उपयोग करते हैं। जंगल से उतना ही लेते हैं, जितनी जरूरत है, क्योंकि हम भी प्रकृति का हिस्सा हैं, अगर प्रकृति बचेगी तो हम बचेंगे। दातौन, दोना-पत्तल, झाड़ू, चारा, जलाऊ लकड़ी इत्यादि सभी जंगल से लेते हैं। इसलिए जंगल को बचाना व बढ़ाना जरूरी है। उन्होंने बताया कि जीव-जंतु, खनिज, वनस्पति की हम पूजा करते हैं, इसलिए उनकी रक्षा भी करते हैं।

प्रेरक संस्था के कार्यकर्ता श्रीपत दीवान बतलाते हैं कि जंगलों में जहां कम घना जंगल है, या पौधारोपण की जरूरत है, इसके लिए गांवों में बीज गेंद (सीड वॉल) बनाकर जंगल में फेंकी जाती है, जिससे पौधे उगें और जंगल में हरियाली हो। इसके लिए गर्मी के दिनों में बीज एकत्र किए जाते हैं। और फिर गीली मिट्टी-गोबर के बीच में बीज को रखकर गेंद सुखा दी जाती है। बारिश में इसे जंगलों में फेंक दिया जाता है। इन गेंदों को बनाने में महिलाएं व बच्चों भी शामिल होते हैं। इस इलाके में भी यह काम किया जा रहा है।

संतोष कुमार ठाकुर बताते हैं कि हमारे सभी तीज-त्यौहार भी खेती से जुड़े हैं- छेरछेरा, दिवारी, अक्ति त्यौहार, नवाखाई, पोरा इत्यादि। छेरछेरा में पुरखा व देवी देवताओं की पूजा होती है। नवाखाई में नए अनाज की पूजा होती है और उसे देवताओं को अर्पण करते हैं।हरेली में खेती के औजारों की पूजा करते हैं। और खेतों में फसलों को कीट प्रकोप से बचाने के लिए जंगली दवाओं का छिड़काव करते हैं।अक्ति त्यौहार में बीजों की पूजा करते हैं और बीजों की प्रमाणितकता की जांच की जाती है। किसानी का नया वर्ष भी शुरू होता है।
उन्होंने बताया कि सहभागिता आधारित काम यहां की जीवनशैली का हिस्सा है। एक दूसरे की खेतों के काम में मदद करना या सामूहिक कामों में सहयोग करना की परंपरा रही है। अगर किसी किसान के पास बैल नहीं है तो दूसरे किसान से बैल लेकर खेती का काम निपटाते हैं। इसी सोच से जंगल में हरियाली बढ़ाने की कोशिश की जा रही है।

कुल मिलाकर, यह कहा जा सकता है आदिवासियों का प्रकृति प्रेम अनूठा है। उनका जंगलों से लगाव आत्मिक ही नहीं, भौतिक भी है, क्योंकि वे जीवन जंगल पर निर्भर है। वन अधिकार कानून के तहत् सामुदायिक वन अधिकार को मान्यता मिली है। जलवायु बदलाव से न केवल आदिवासियों की आजीविका पर संकट आया है, बल्कि वन जीवों पर भी खतरा मंडरा रहा है। कभी ज्यादा बारिश से फसलों का नुकसान हो जाता है,कभी सूखा पड़ जाता है। आदिवासी ही इससे सबसे ज्यादा प्रभावित होते हैं। इस सबको ध्यान में रखते हुए जंगलों की

हरियाली बढ़ाने के साथ टिकाऊ आजीविका की रक्षा करना अच्छी पहल माना जा सकता है। दूरदराज के आदिवासी भी इस पहल में जुड़ रहे हैं, यह उम्मीद जगाता है। यह पहल सराहनीय होने के साथ अनुकरणीय है।

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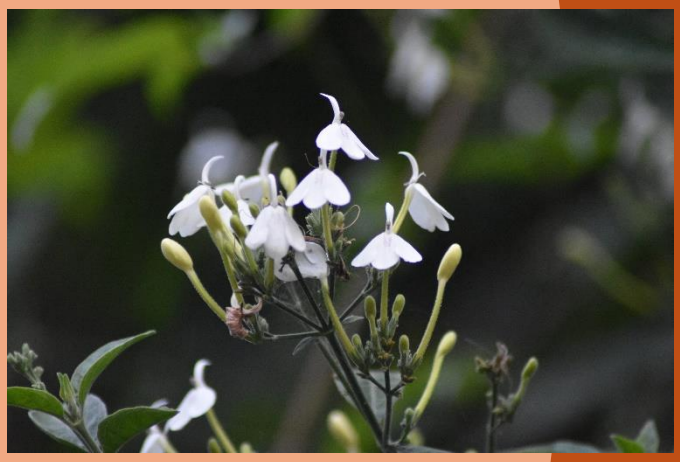
Heralds of Spring

Celtis tetrandra, first flush and flowers

Ficus tsjahela, first flush



Rhinacanthus nasutus, first blooms

Dendrophthoe falcata, flowers

Gmelina arborea, first flowers

Erythrina variegata, last of the leaf-fall

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