Our Forests and Us

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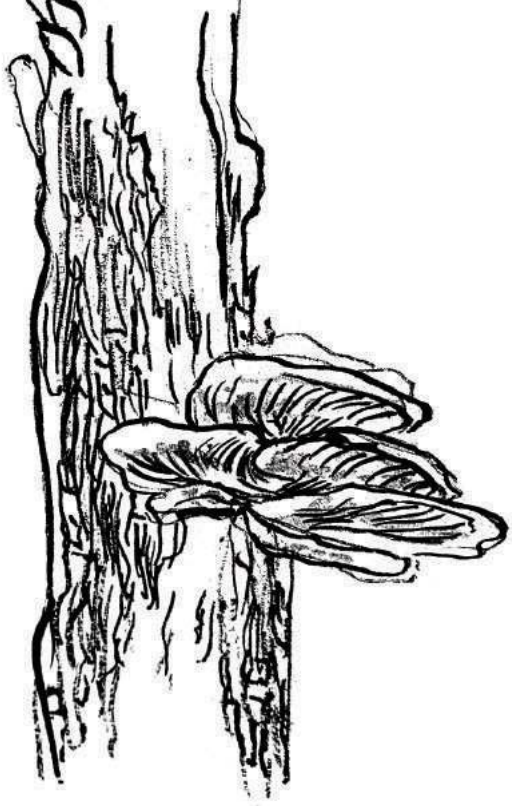
A teaching-learning module
on forests, wildlife and their conservation

For middle school children and teachers of Adivasi communities in Central India

TE|SF India
Transforming Education for Sustainable Futures

eklavya



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A teaching-learning module on forests, wildlife, and their conservation

Draft Version

Research and writing team

The team involved in conceptualising and developing this module comprised Himanshu Srivastava, Aisha Kawalkar, Ruchi Shevade, VGVS Manjusha, and Sachin Saxena. Seven associates from the community – Chandnee Chouhan, Durga Devi Baraskar, Ghanshyam Laviskar, Guliya Baraskar, Priyanka Bhallavi, Neetu Uikey, and Sulekha Baraskar – vetted select activities discussed in the module and contributed to their field testing.

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Credits

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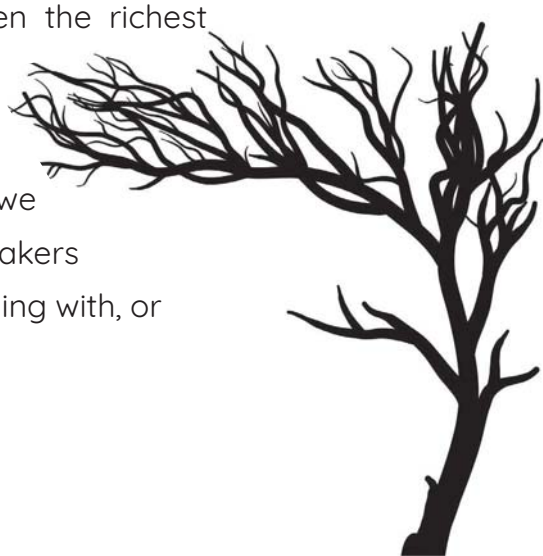
A NOTE TO THE TEACHERS

At the heart of the Indian landscape, the forests of Central India thrive with life in its varied forms. Dense groves of trees, mountain ranges, grasslands, and flowing waters form the stunning terrain. It is home to one of the largest populations of majestic big cats. However, living in the shadow of the tiger's popularity is a rich diversity of animals. Some of them can only be found here, like the Indian giant squirrel and the forest owlet. The greenery includes magnificent trees like sal, teak, mahua, tendu, amla, palash, saaj, and also bamboo and rare herbs. The many rock paintings scattered throughout the forested region are evidence that humans have been an inseparable part of the forests for a long, long time. Yet, in recent decades, like other forests all over the world, there has been increasing human influence on them of different kinds from various quarters.

Human-induced environmental problems, leaving a permanent dent in the natural environment, have affected many spheres of our lives. We constantly come across statements like 'The world is on the verge of an environmental crisis,' and, within our lifetimes, are witnessing what environmentalists have been pointing out — the global climate is changing, natural resources are getting depleted, ecosystems are degrading, many species are becoming extinct, pollution levels are rising, and the agriculture sector is in bad shape. Although this crisis affects us all, it disproportionately affects people from marginalised sections of society who already face struggles in the domains of health and livelihood. Underlying this situation and driving it is a certain understanding of development, modernisation, and the economy that limitlessly exploits natural resources, yet benefits only a few. As a consequence, not only is nature harmed irreparably, but we also see that wealth is getting concentrated in the hands of a few, and the gap between the rich and the poor is ever-increasing. The COVID-19 pandemic highlighted these inequalities when the richest in India doubled their wealth, even as the rest of the country was ravaged by unemployment and poverty.



At this juncture, as teachers, we must ask ourselves what we are preparing our students for. Will they become changemakers and try to address some of the issues the world is grappling with, or

will they become a part of the system and let things be as they are? If we are to envision an equal and just world, our students must start engaging critically with local and global problems at an early age and develop an understanding of these issues and the ability to take action. To enable and support our students towards this, we need to understand and build on the knowledge and experiences that our students and their communities have about their environment since they have an intimate connection with it.

Adding a step in this direction, this learning module aims to develop a critical perspective on forests and conservation among students and provide concrete ideas for action at the local level. Building on students' out-of-school experiences in the forest and other aspects of their life, the activities discussed in the module provide an opportunity to question the prevailing understanding of what we mean by development and how we can conserve nature.

The ideas that inform this module come from a study in which we documented the Adivasi perspective on forests, wildlife, and conservation in the Satpura region of Central India by talking to adults and children in four villages of Kesla block in Hoshangabad district. Hence, we believe that it would be most suited to the context of Adivasi students in Central India. Additionally, it may give an idea to teachers from similar contexts who could design a teaching sequence that is relatable and relevant to their students.

We hope you will enjoy reading this module and use it with your students.

A LETTER TO THE YOUNG MINDS

Why bother about forests, wildlife and conservation?

Dear students,

You know the forest like the back of your hand. It means so many things to you and your people. By way of living close to forests for generations, and going into the forest on a day-to-day basis for various reasons, you know a lot about forests — much more than many adults do elsewhere. So, when we talk about the future of forests, about taking care of them, your views matter.

You would have heard from your elders and elsewhere that the forests are changing. Due to many reasons, the plants and animals that were there in the forest earlier are no longer seen. And this trend continues. Not just in the case of forests near your village, but all over the world, forests are getting smaller and less dense. In the world that you will inherit, would you not want the forests to stand with all the grandeur that they do now? Then, we must look closely at the root cause of this issue in order to find a way out and work together to find solutions, big and small, to this problem that affects us all.

The activities in this module expect you to work in small groups, talk to your friends and elders, and share your ideas with your classmates. There are several questions asked in between. Whenever you encounter a question, it is important that you answer it first before going ahead. These activities and questions will help you put together your ideas, experiences, questions, concerns, and feelings about forests, wildlife, and conservation and perhaps see them in a new light.

Our neighbourhood

Let's begin our discussion with what we are most familiar with. Draw a detailed picture of the place you belong to, i.e., your village.

Tell us about your drawing. What are the places and things you have drawn? Did you also include the neighbouring forest, the surrounding hills, and the river that passes through your village? Why or why not?

Go ahead and check your classmates' drawings as well. What is similar among all the drawings? Is there anything in your drawing that makes it unique? Why is it important to you?

Note to the teacher:

Children living near the forest often depict their village as seamlessly connected with the nearby forest, rivers, and hills. Similarly, in children's drawings of the forest, you might find the presence of human activities and artefacts. For Adivasi children and their communities, the natural and social elements co-exist.

Since most of us are familiar with forests, can you also draw a picture of the neighbouring forests?

What do you like the most about the forest? Is there a spot in the forest that you really like? What do you like about it?

Do you have any favourite trees or animal friends in the forest? What if you could become any animal or plant for a few days; what would you like to become? Draw and talk about all that you would be doing then.

Would you like to narrate any exciting incident that happened in the forest?

Ask the elders in your village how the forest has changed over the years. Make notes about what you learn from them and share them with your classmates. Add your thoughts too; how do you feel about these changes?

Connecting with Forests

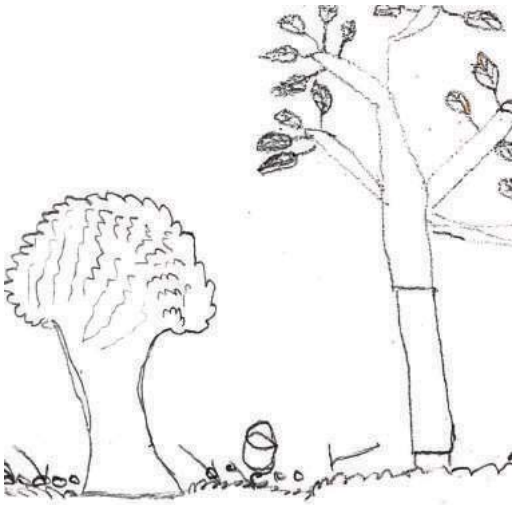
Let's play a game!

Pick any alphabet and think of a plant, fruit, or animal that you can find in the forest, and whose name starts with that alphabet. For how many letters could you do it with ease? That's your 'Familiarity with the Forest' score.

We all depend on natural entities such as forests, rivers, and hills, directly or indirectly. Discuss how the people in your village depend on forests. Name some more fruits, seeds, flowers, tubers, barks, and herbs that you get from the neighbouring forest.

Note to the teacher: .....

Together with the students, you can document the rich knowledge that the communities around your school have about resources from the forest. This knowledge can be about different domains like medicinal plants and their uses, edible plants, and so on. Although we have a general sense that our children know a lot about the forest, such a mapping exercise will give us a glimpse into their in-depth knowledge. This would be useful for pedagogical purposes. For instance, examples from this exercise could be brought in to contextualise various concepts. It will also give out the message to the children that their knowledge is valued and is connected with what they learn at school. You would be treating their knowledge as resources for further learning.



A student drawing (Suraj Kumare, Class 5) showing the activity of collecting Mahua in the forest

People living within or near forests often depend on them for firewood, food, fodder, medicines, and many other types of forest produce and related livelihoods.

In what other ways do you and the people of your village relate to the forests?

Simple acts of care: Notes from our interactions with children

We have become good friends with the children from the village now. They offered to take us along with them into the nearby forest. So, we planned a day-long outing with them. While planning, when it came to food, the children suggested that we could cook up a snack. With everything chalked out, responsibilities assigned, and essentials in tow, we headed to the forest.

As we made our way into the forest, the children had much to share. They introduced us to many trees and plants and talked about which ones have medicinal properties, in which season they flower, which ones they like, which are the favourites of the squirrels and monkeys, and so on. They also picked some berries along the way, but soon our tummies were growling for more food. We found a spot, cooked food, and finished it too. It was amazing how everyone had pitched in.

Finally, as we wrapped up and it was time to leave, Ajay (a seven-year-old) and his friends insisted on waiting until the fire was put out. He said, “We’ll leave only after we put water on the ashes. Else, this can trigger a fire in the forest.” Some of the children went to a pond nearby, fetched some water, and put it on the ashes, ensuring that it cooled down.

Our young friends knew how to care for the forest. There might be many such incidents reflecting a strong concern and responsible attitude towards the forest by people who share a close bond with it. Do you have any incidents to share about such simple yet significant acts of responsibility towards nature?

Are there any festivals when you go to the forest? Are there any parts of the forest that are sacred to your community? Are there any animals or trees that you consider sacred?

Here are some examples to get you started.

- Every Gond family is named after a living being—a tree or an animal. For example, the Uikey family name comes from the urrum (monitor lizard), Iwane from the crane, and Tekam from the sagaun (teak). They worship and protect this particular plant or animal. They do not harm this being and believe that it also respects them and will not harm them.
- Certain patches of the nearby forest are considered sacred by some Korku villages. Rituals and prayers for the wellbeing of the village or at the start of the sowing season are done here. No one can take away anything from here for personal use. As the community takes care of it, the forest here is very dense, with clumps of different kinds of plants close together. So, they are called sacred groves. There might be a regional name for it too. For example, in Amjhira (a small village next to the Tawa river), there is a grove of very old mango trees surrounded by sagaun and gular trees, and a stream of water flows through them. They call this place Amjhira and the village is also named after the grove.

Imagine what would happen if the forests were not there. Who do you think would get affected by this?

- How would it impact the lives of people in your village?
- Would the loss of forests impact the lives of city dwellers too?
- Which industries are dependent on forest produce? How would deforestation impact those industries?
- How would deforestation affect wildlife?
- Find out from the elders in your village if forests also affect the rains and farming. How?
- Can you think of any other effects of deforestation?

Note to the teacher: .....

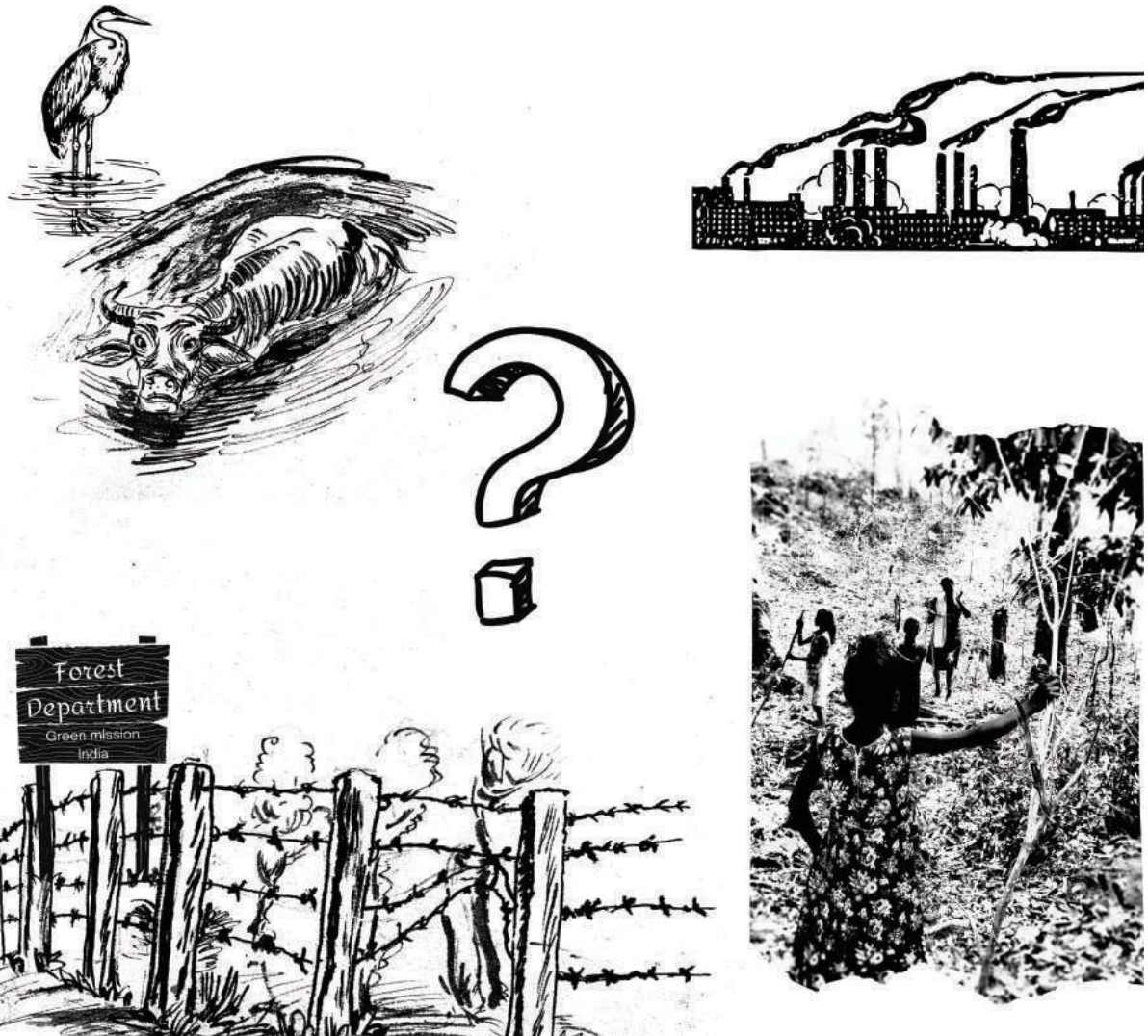
This activity can be done in small groups, with each group discussing how a particular group or entity may be affected. After deliberations within the group, students can share their ideas with the class.

Whose forests?

Have you ever wondered who owns natural entities like mountains, hills, rivers, lakes, forests, and oceans? Who do they belong to? Who has rights over them? Is it God Almighty?? Is it the animals and birds who depend entirely on them for food, water, and shelter? Is it the government or the local people who have lived there for many generations?

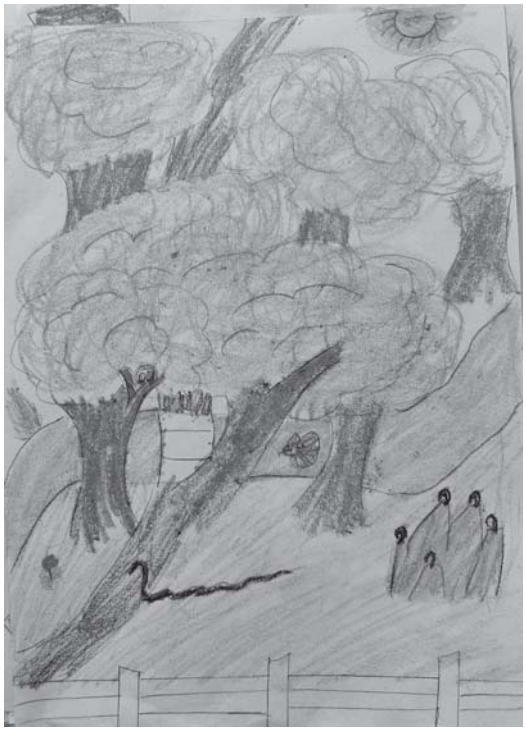
These natural entities are known as ‘commons’ as every living being under the sun has equal right to access them. But what if only a handful of people had free access to the commons? Would you support that idea? Why or why not?

Talking about forests in our context, we observe that access to forests is regulated by the State Forest Department. The Forest Rights Act 2006 provides certain rights to people like us whose lives are closely entangled with forests, rivers, and hills and who depend on nature for survival and livelihood.



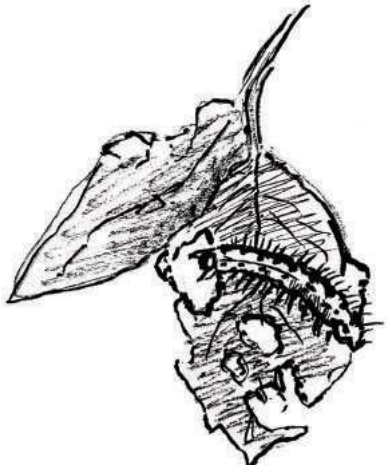
The Forest Rights Act (FRA), passed in 2006 by the government, protects the rights of tribal communities traditionally living in forests to meet their needs, including earning a livelihood, and other social and cultural needs. The act covers individual rights as well as community rights such as fishing and access to water bodies.

Further, the act recognises the symbiotic relationship of these communities with the forest. They are not only dependent on forests but also have indigenous wisdom for conserving forests. Therefore, tribal communities have the right to take part in decisions regarding the protection and conservation of forests.



A student's drawing (Altap Parate, Class 7) showing forest as a habitat for different creatures and the fencing raised by the forest department

The act has not been implemented widely, and it has problems. For example, the complicated process of making claims or having to provide documents to prove that one has been staying in a forested area for three generations. Yet, it is a good start towards accepting people's rights and knowledge systems. Any attempt to dilute the act needs to be questioned.



Forest and Wildlife Conservation

As you know well, the forests mean a lot to the people living close to them. In addition, any harm to the forests affects not just their lives, but many others who depend on them in various ways, as we had discussed. Most importantly, the loss and degradation of forests add to the catastrophic environmental crisis that our world is going through. On the other hand, large-scale changes elsewhere have led to damage to the forests.

The climate all over the world is currently changing faster than ever, and it is mostly due to human activities. Ask the elders in your village how the climate has changed over time, and how it has impacted agriculture in your region.

What are the reasons for these global-scale problems? As part of industrial, technological, and economic progress, we have burned more and more fossil fuels (like coal, petrol, diesel, and natural gas). This has released a lot of carbon dioxide and other gases that trap heat into our atmosphere, making the earth increasingly hotter.

DO YOU KNOW?

The number of days each year when it is extremely hot has doubled since the 1980s.

The number of deaths in India due to extreme heat waves has increased by 1.5 times during 2017-2021.

Moreover, extensively taking away the material and land needed for the rapidly booming economy — fuelled by both human need and greed — is putting immense pressure on the forests, rivers, and hills. As a result, natural resources are depleting fast, rainfall patterns are changing, and there are more forest fires.

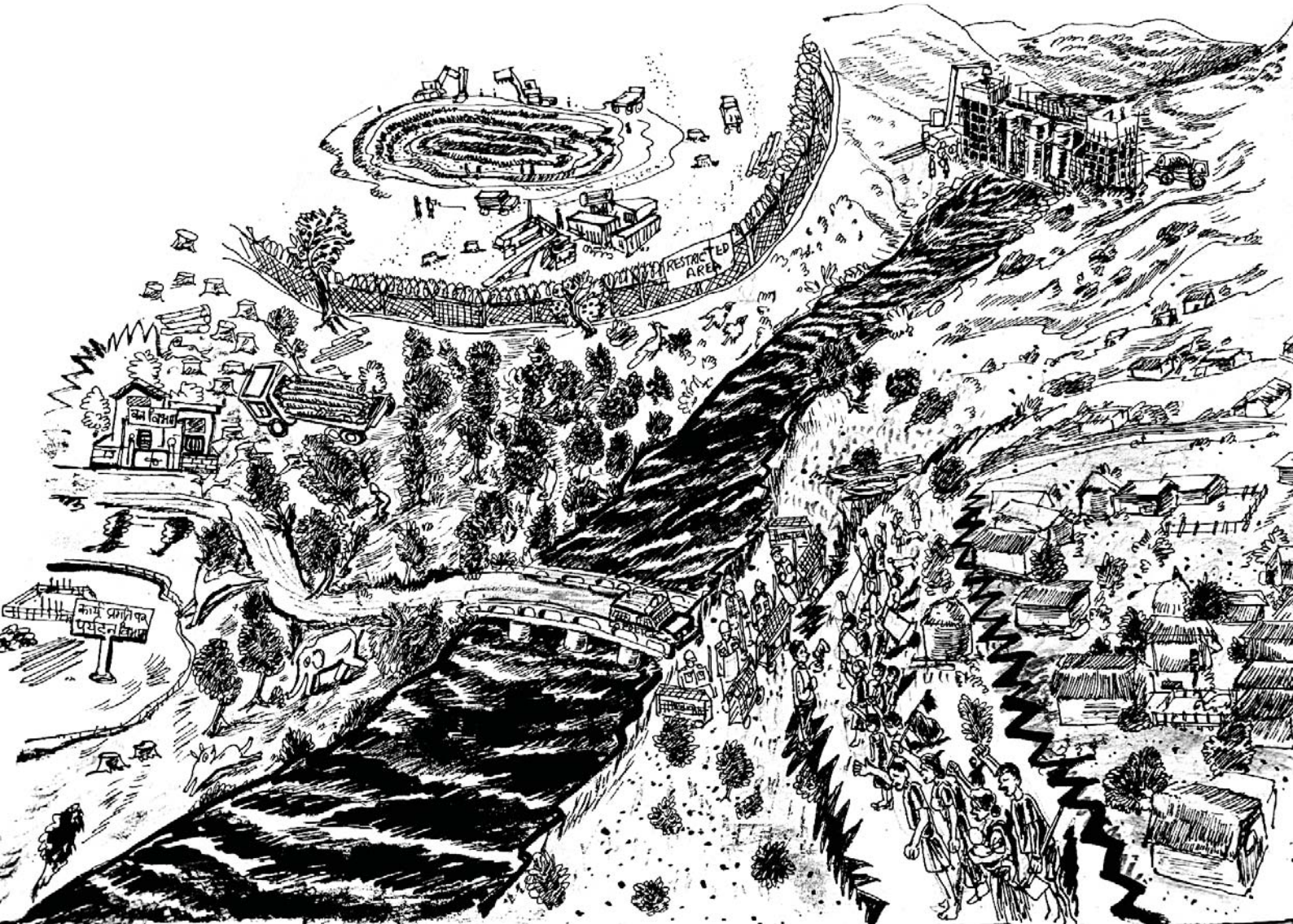
It might have come up in your discussion of 'What if there were no more forests?' that our forests play a key role in regulating the climate. As trees in the forest grow, they take in carbon dioxide and prevent its build-up in the atmosphere. In doing so, they also prevent flooding and soil erosion and secure river basins, among all the other things they do to support life on earth. Large-scale cutting

and burning of forests not only reduces their capacity to capture carbon dioxide but also releases more of it into the air.

Moreover, forests are home to about 80 per cent of the life forms found on land. Due to the loss of their natural homes, hunting, and climate change, the world has lost more than half of its wildlife in the last 50 years.

Saving the forests is crucial for all these numerous reasons. It is not too late, but it is high time. The situation demands urgent action at multiple levels. Surely, we need to question how, and how much, we produce and consume products, and change our practices. However, this may not be enough to address the massive problems that we are talking about. Governments must rethink their course of action and place rules and regulations for industries. There is also a need to reflect on what we mean by growth and development, and how we treat nature in the process.

But how do we go about it? Let's discuss the specific case of tiger reserves as an example to understand how governments are dealing with the situation. Later, we will see how Adivasi communities have managed to live in harmony with wildlife and protect their forests for a long time.



Why the spotlight on the tiger?

When we hear about protecting wildlife, we often hear it in the context of tigers. Why is it important to save tigers? Why do other species not get so much attention?

First of all, we would all agree that the tiger is a magnificent animal. Across many cultures, 'being a tiger is associated with being brave, powerful and fascinating. No wonder, it has become a cultural icon, even getting the badge of being our national animal. It is not all looks and personality though, the tiger has a crucial role in the food web of the forest, being the ultimate predator. To put it simply, herbivores like deer and boars eat the plants and tigers eat them. A tiger can also make a kill out of smaller carnivores like wolves, and sometimes ferocious ones like leopards and crocodiles. But the tiger has no natural predator.

The only threats tigers face are hunting and the loss of their forests. Imagine what would happen if suddenly there were no predators in a forested area. Won't it be good for the animals who were once their prey, who now would happily grow in numbers? Think again. What will be the effect on the vegetation there? Where will the extra fodder for the rapidly growing herbivores come from? What would happen to all the other animals who shared the place and food? Would the soil and water in the forest also get affected by the loss of vegetation due to overgrazing? Phew! It seems like a domino effect – a change in one part of the forest ecosystem would affect many other parts. Now imagine the reverse: what if the forest cover kept decreasing and so, did the vegetation? The herbivores won't have much food but would the vanishing of the humble grass affect the mighty tiger too?

Recognising the key role of tigers and the worrisome decline in their numbers mainly due to hunting and poaching, Project Tiger was started in our country in 1973. From an estimated 58,000 tigers in the 1800s, less than 2000 had remained! Large interconnected tiger reserves were made as these creatures need a huge area of land; it is said that to protect one tiger we need to conserve 25,000 acres of forest area. So, saving the tiger is saving the forest! Many Adivasi communities recognise this intimate connection and worship the tiger as a protector of the forest.

Note to the teacher:

As a famous example of how a predator species affects the entire ecosystem, watch the video linked below on how the reintroduction of wolves in Yellowstone National Park in the United States curbed the population of elks (a type of barasingha) and led to the regeneration of the plants—and thus, the forest—that was being overgrazed by the elks. You may show this video to your students while talking about the role of predators in the ecosystem.

https://www.youtube.com/watch?v=ysa5OBhXz-Q&t=2s

Differing Views on Conservation

Tale of the Tiger task force

Not so long ago, there was alarming news from one of the well-known tiger reserves in the country—there were no more tigers left there! It had been a wildlife reserve for 50 years, and there were 16–18 tigers reported in the official census just a year ago. What happened to the tigers? Poachers were probably the main villains of the story. The news was all over the media and there was an uproar around the world. Conservationists wanted to know what was being done so that this would not happen to other tigers in the country. The state and central governments had to do something urgently. One of the actions taken was forming a Tiger Task Force to advise on how to better protect tigers in the country. This was a special team of five members, all with experience in the field of environment and wildlife.

The team thought that they should discuss their ideas with other people involved in the matter. So, they called for a public meeting where different views emerged, about the issue of tigers, conservation, people, and overall wildlife. Soon, the meeting was divided into two groups, each with a strong viewpoint different from the other.

A loud voice roared from a corner.

‘We do not have enough forests left for experimentation. Let us leave the management of tiger reserves to experts like the forest department, scientists, and worthy non-governmental organisations. They know better about what needs to be done. What is important is to protect the tigers. One must focus on that and not be distracted by petty issues like Adivasis.’

This person, who was passionate about tigers and had written many books on conserving tigers, had a clear argument.

‘Can’t we leave even 4 per cent of India’s land as protected areas without any human interference?’

A senior environmentalist, who heads a research organisation on science and environment, was furious with these arguments but held calm at her turn. She proposed to the committee that Adivasi voices must be heard before arriving at any conclusion.

‘We have been discussing these issues for a long time, but nothing constructive has been done till now. We have neither been successful in protecting the tigers, nor in relocating the so-called “destructive” Adivasi villages. We have tried many ways without involving the tribals. I think now is the time we do that.’

Someone who seemed more familiar and sympathetic to the Adivasi context had been raising his hand for a long time. When he got his chance, he expressed somewhat similar concerns.

‘The tigers and their habitats cannot be protected if the local communities are not involved. These communities have been living in forests for hundreds of years. They are traditionally more aware and sensitive to the forest. They know how to live in harmony. They have been actually practising it.’

‘Till the time poor people are victims of conservation, there will be no conservation.’

Note to the teacher:

This conversation is adapted from a news article which can be accessed at https://www.downtoearth.org.in/news/forces-at-work-9797

Find out from the elders in your family how your community has been taking care of the forests, rivers, and hills so far. Share with the class what you learnt from them.

Suppose you were also invited to attend the meeting as a representative of an Adivasi community living close to forests. How would you counter those who believe Adivasis to be the real threat to forests and wildlife?

If Adivasis are not the real threat to forests, then who is it? Let’s find out.

Take a close look at the following image, which shows various news items collected from different newspapers.


सद्भावना पाती
प्रदेश के बड़े शहरों से सटे जंगल के अस्तित्व पर मंडरा रहा खतरा
Listen to this
-4 सालों में भोपाल, इंदौर और ग्वालियर जैसे शहरों से सटे जंगल में बढ़ा अतिक्रमण
TIGER PARKS THEN
TIGER PARKS NOW
Irrigation
Mining
Defence
Road
Hydel
20000
15000
10000
5000
0
Forest area diverted from 2016-21 (In Hectares)
Scroll.in
Wednesday, November 9th 2022
ENVIRONMENTAL DAMAGE
In just 30 years, India has lost large forests to 23,716 industrial projects
India's forests now cover only 21.34% of the country.
Himadri Ghosh, IndiaSpend.com
Jun 04, 2016 · 09:30 pm
DownToEarth
India continues to lose forest land to non-forestry projects
Central environment ministry reports diversion of 11,467 hectares forest land in 2019 (up to first week of November)
By Ishan Kukreti
Published: Tuesday 09 June 2020
FRONTLINE
INDIA'S NATIONAL MAGAZINE
ENVIRONMENT
TRIBAL ISSUES
How are Chhattisgarh's tribals fighting back miners in central India's densest forest?
PRAGATHI RAVI
Print edition : Aug 25, 2022
On April 6, the Chhattisgarh government approved the clearing of the forest for the Parsa OCM project, which threatens to destroy 800 hectares of forest, besides land, livelihood, and culture in six villages. The residents of these villages rose in protest.
THE TIMES OF INDIA
THIS STORY IS FROM DECEMBER 19, 2021
Road expansion threatens Satpura-Melghat tiger corridor
VIJAY PINJARKAR / TNN / Dec 19, 2021, 04:05 IST
ARTICLES
Road expansion threatens Satpura-Melghat tiger corridor
Road expansion threatens Satpura-Melghat corridor
Madhya Pradesh, with 526 tigers, narrowly pipped Karnataka (524 tigers) to win back the 'Tiger Stripe' tag after the All India Tiger Estimation (AITE)-2018. But it may lose this distinction due to callousness in enforcing wildlife mitigation measures for linear projects like roads by National Highways Authority of India (NHAI). The state has already lost 37 tigers this year due to various reasons, including road hits.
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Chhattisgarh's Industrial Jungle
Chhattisgarh is set to become the largest producer of thermal power, cement and sponge iron. The push is on to install 77 per cent of India's current thermal power capacity, 51 per cent of the country's present cement capacity and 31 million tonnes of sponge iron capacity, which is equal to India's current capacity. The price of this fast-track industrialisation will be forests, agricultural land and the state's 32 per cent tribal population. SUGANDH JUNEJA toured the districts to assess the shape of things to come and the struggles that are already afoot. Does the country have a method to assess the cumulative impact of this crowded industrialisation?
NEXT COVERAGE
By Sugandh Juneja
Published: Wednesday 15 September 2010

After going through the news clippings carefully, who do you think is causing more harm to the forests? Is it people like you, who live close to forests, or the big industries? Who then is the bigger threat?

Can you think of a few reasons why Adivasi communities are blamed for causing harm to forests and wildlife when their consumption is nothing compared to the scale at which industries cut trees and use other forest produce?

Source: www.greenhumour.com

Now that we have discussed who is more responsible for harming the forests and wildlife, let us look at some of the efforts that have gone into protecting them.

One such initiative is the Satpura Tiger Reserve in Madhya Pradesh which was declared a protected area in the year 2000 to conserve the rich biodiversity of the region. Three wildlife sanctuaries jointly define the reserve area, which is about 1,500 km2. . Many villages were shifted elsewhere when the reserve area was evacuated for tigers. Many more villages, which were then at the periphery, are also under pressure and will be displaced eventually. Khamda is one such village that has been recently displaced to three different sites.

Story of Meenu from Khamda village

This is not an imaginary story. This actually happened in a beautiful small village located next to a forest with a river flowing through it. In the village was a little girl named Meenu. She would be around your age, studying in sixth grade. Every morning, Meenu went to the river and fetched water. She then cooked food and left with her friends to the forest to graze her goats. While she was in the forest, she would sometimes pick mahua, sometimes gulli or karwa chirak if someone in her neighbourhood had a fever. At times, she would also pick up dried twigs and branches for firewood. Having spent a blissful day, the goats and Meenu would return home by evening.

One day her mother called for her and grimly said, 'You won't be going to the forest anymore.' Taken aback, Meenu asked 'Why?' Her mother explained, 'Soon we will have to leave. The village is being vacated, and all of us will have to shift to a new place. We have to start gathering our things.' Angry and shocked, Meenu yelled, 'Why is that?' Mother told her that the forest will soon be declared a sanctuary. This was all getting too much. Now, Meenu was puzzled. 'What's a sanctuary?'

Do you know what a sanctuary is?

Meenu's mind was full of questions. She wondered, 'What does the sanctuary have to do with us? Why do we have to leave our village because of it?'

You might have heard that some villages located close to forests are displaced and settled elsewhere.

Now discuss in your group:

- Why are villages displaced? Have you ever heard about any village being displaced?
- Who makes such a decision?
- Why do you think the government does this?
- What is the effect of this displacement on the villagers?
- What kinds of problems do they face?
- Could there be any benefits too? For whom?

Thinking about all these things, Meenu fell asleep, and she had a dream during the night. In her dream, she was thinking about her new village, what it would be like, and what all things would be there. One moment she would think that they might get a place near the city where they would live in a basti; the other moment, she would think that they might get some land in another village near a different forest. She had seen some villages settled recently near the national highway. Would they also get a patch of land there? Then she thought, why not just accept the money in exchange, of what use will that barren land be anyway? At one point, she thought that they should confront the government; after all, this is so unfair!

What would you do if you were in Meenu's place? If you really had to choose, then where would you go? There are some choices given below. Which one do you think is the best option and why?

1. A basti near the city where there might not be any land for farming, but there would be a school, a hospital, a market, shops, water and electricity connection, and a mobile network.

2. A land near another forest where a river is close by and there is also a school and a health centre.

3. A large piece of land near a highway, which would not be very fertile but can be put to use for other purposes like opening a dhaba.

4. Money in exchange for land.

You must have noticed that conservation efforts initiated by the government have often resulted in rupturing the lives of people living close to forests. Discuss with your friends whether a balance can be sought between social and environmental causes. How?

In the next section, we look at some of the conservation efforts initiated and led by various Adivasi communities who have a long tradition of living in the forests. Make a note of how they have managed to protect the environment as well as pursue their livelihoods without causing harm to the natural environment.

Community-led Conservation Efforts

Story of barefoot ecologists of the Nilgiris

The honey bee population has been decreasing all over the world due to various reasons like climate change, loss of spaces and varieties of food that they live on, and use of pesticides. Scientists are scratching their heads for ideas to solve this problem. The loss of bees will impact a wide range of plants, which rely on them for pollination. It seems that there is much to learn from the Adivasi honey-gathering communities of the Nilgiri Biosphere Reserve in South India. They hunt for honey to make a living and have the knowledge and skill to gather honey from cliffs of stony hills, tall treetops, and even from inside tree trunks or underground hives.

Members from the Irula tribal community collect honey from a hive on a cliff
Source: https://honeyportal.keystone-foundation.org/wp-content/uploads/2017/06/Honey-Collection-NBR.jpg

They know very well not only where to look for honey, but also when to harvest it to get better quality honey (with less water content) and to give a greater chance of survival to the bee larvae. As a tradition, they do not use methods that harm the beehive. So, they do not crush or burn the beehives; instead, the elders advise using smoke from burning certain herbs from their forest to drive the bees away. They let the brood (the eggs and the larvae) survive and harvest only some of the honey so that the growing bees would also have enough to survive. Of the many hives they find, they leave more than half of them undisturbed so that the bees can return to the same place next year. Thus, they live and let live.

Ecologists in the Niligiris region agree that it is important to not keep the tribes out of the forest. Rather, their traditional expertise should be used as a resource for conserving wild bees. Keystone Foundation, a not-for-profit organisation working for conservation in the region, works to safeguard and promote these timeless traditional practices. As part of the effort, it helped form a cooperative of honey hunters, all of whom get equal profits from better market prices due to their sustainable harvesting practices (sustainable meaning not destroying the natural entity that one uses, but to ensure that it also flourishes and is available for the coming generations). Also, partnering with the organisation, members of the local community observe and record the bee population and the quality of their habitat. Thus, ecologists and local people work together to monitor the environment, ensuring that there is good quality food (i.e., honey) available for people and the bees and that the livelihoods of the tribes, as well as the bees, are secure.

Story of Tawa Matsya Sangh of Hoshangabad district

For mega projects like big dams and hydroelectric projects, huge tracts of land are vacated and hundreds of villages are displaced. It is said that a few people will have to bear the cost for the betterment of many. Come to think of it, is that fair?

In the 1970s, this happened on a large scale in the Hoshangabad district of Madhya Pradesh. One of the projects was the construction of a dam on the Tawa river. Due to the dam, thousands of acres of land, including 44 tribal

villages and parts of the nearby forests, was submerged under water. Three thousand villagers were moved to a higher level on the surrounding hills without proper arrangements made for them there. The forest was the main source of livelihood for the Gond and Korku tribes who lived in this area. Suddenly, their access to it was very limited. Also, the land that they now had for farming was on a slope. It had a thinner layer of soil and so, was less fertile. What would they do to make a living? They slowly started to make bunds (embankments) on the slopes to stop water from running off and tilled the little land they had. They also began farming in the area that was exposed after the water level from the dam receded during the summers. This 'doob ki kheti' (draw-down agriculture) is possible only for 3–4 months in a year and they had to pay revenue for this land. To supplement their meagre earnings, they started fishing in the waters that now covered the land they once lived on. But that was considered theft! Instead, private contractors were given rights for fishing in the Tawa Reservoir who did indiscriminate fishing for maximum profits.

People saw this as injustice and came together to fight for their rights. They formed small cooperatives which united as a federation, called the Tawa Matsya Sangh (TMS). Of course, the private contractors did not like this and threatened the local fishermen. It was not easy to convince the government either. However, under the banner of Kisan Adivasi Sangathan, people took the path of struggle and staged a long series of protests. Eventually, the government agreed to give them fishing rights in 1996.

Leaving behind their homes,

their soil, their bales of straw,

Fleeing the roof over their heads, they often ask,

O, city !

Are you ever wrenched by the very roots

In the name of so-called progress?

Jacinta Kerketta, an Adivasi poet and activist

The TMS was able to increase the earnings of the fisherfolk as it bought their catch at a fair price. It would then transport and sell the fish in the market. Soon, the people started to earn three times their earlier income. You would be surprised to know that the number of fish in the reservoir also increased when the TMS was involved. How did that happen, you ask? Well, based on traditional knowledge and values, the fisherfolk had a mode of operation very different from the private companies.

The federation had depots in different villages where they grew fish seeds. After the fingerlings were nourished and grew bigger, they were put in the reservoir. So, their survival rate was higher. Another practice which ensured that the little fish were spared, sustaining the fish population, was to catch only a certain size of fish. If Rohu fish of less than 1 kg and Katla fish of less than 2 kg were caught in the net, then they would put these fish back in the reservoir. Moreover, fishing is stopped for about two-and-a-half months during the rainy season when it is time for the fish to breed. As people had stakes in the matter, they also monitored and checked for fish theft from the reservoir.

Thus, the people did the work of conservation as well as development simultaneously and so well. Unfortunately, after 10 years, their contract was not renewed further as this area was included under the Satpura Tiger Reserve. Now, commercial fishing is not allowed except in the peripheral areas on a small scale.

By the way, people say that the fish population has also drastically reduced since. On the other hand, the tourism department has made Tawa a popular tourist destination with a lavish resort and cruise boats. Faagram ji from the Kisan Adivasi Sangathan wondered aloud, ‘How does this not cause problems for conservation?’

In these two stories, you have now read of the communities in the Nilgiris and the Satpuras, involved in different kinds of occupations. Do you find anything common in these two stories—about the people, the work that they do, or their attitude towards nature?

Is there a difference between the attempts made in these stories to conserve nature and the attempts made by present-day conservation projects?

Do you know of any other such initiatives where local communities were a part of the conservation efforts? Try to find out more; there are many such practices and initiatives where people were involved in conserving nature.

Note to the teacher: .....

Here are a few more success stories of community-led conservation initiatives:

1) The Soligas are an Adivasi community of Karnataka. Traditionally they have been dependent upon forests for their livelihood. However, they were evicted and relocated when the forests they lived in were declared as a protected reserve. The Soligas fought a legal battle and became the first Adivasi community to get their forest rights officially recognised. To find out how, since then, their community efforts have led to doubling of the number of tigers in the region, read on: https://www.thenewsminute.com/article/how-indigenous-tribe-k-taka-s-tiger-reserve-won-battle-over-forest-rights-89255

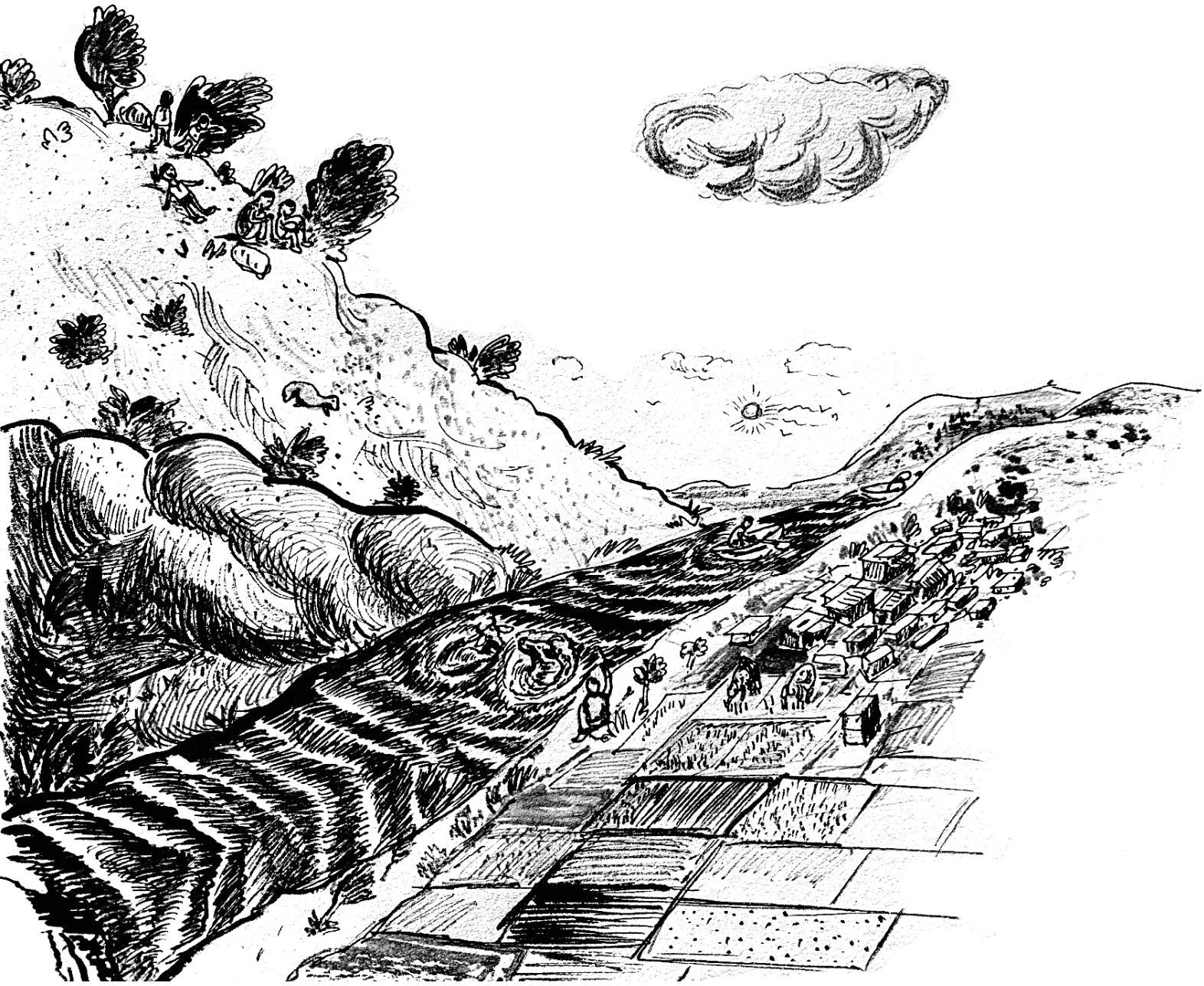
2) When the Adivasi communities of Jhabua and Alirajpur districts of Madhya Pradesh encountered water shortage, they addressed it successfully through their ancient Halma* tradition. Would you like to know how? Read more at: https://thelogicalindian.com/story-feed/get-inspired/bhil-tribes/

*Halma is an ancient tradition of the Bhil community, where villagers gather to discuss the problems faced by the community and work together for solutions.

3) Two communities from Nagaland and Arunachal Pradesh have posed strong cases for why the involvement of the communities in forest and wildlife conservation is crucial and beneficial. More can be read at: https://vikalpsangam.org/article/two-conservation-communities-from-northeast-india-win-biodiversity-awards/

Make an Impact

- An important public meeting is happening soon. Members from your village have been invited to attend the meeting. It is a discussion on 'finding new ways to conserve our forests'. You and four other students from the school have been invited to present a poster. The poster needs to talk about any two of the following themes:
  - » Your idea of forest conservation;
  - » Unaddressed or unseen issues that need attention;
  - » Three fresh suggestions on forest conservation from your side to the government, community, or civic organisations.
- Find out from the elders in your village how access to forests has changed over time. Write a letter to the local newspaper if you feel that your community has been unfairly restricted from the forest and not allowed the rights that you traditionally held over the forest. Bring in all the arguments that we have made so far about how communities living near forests have rights over them, have practices to coexist with nature and take care of it, and why the people and the government need to work together in conserving the forest.
- Invite someone from Tawa Matsya Sangh, Kisan Adivasi Sangthan or similar people's collective to your school or village meeting and request them to talk about the historical struggle of people in the region. Find out if villagers in your community have ever organised themselves and been a part of a struggle.



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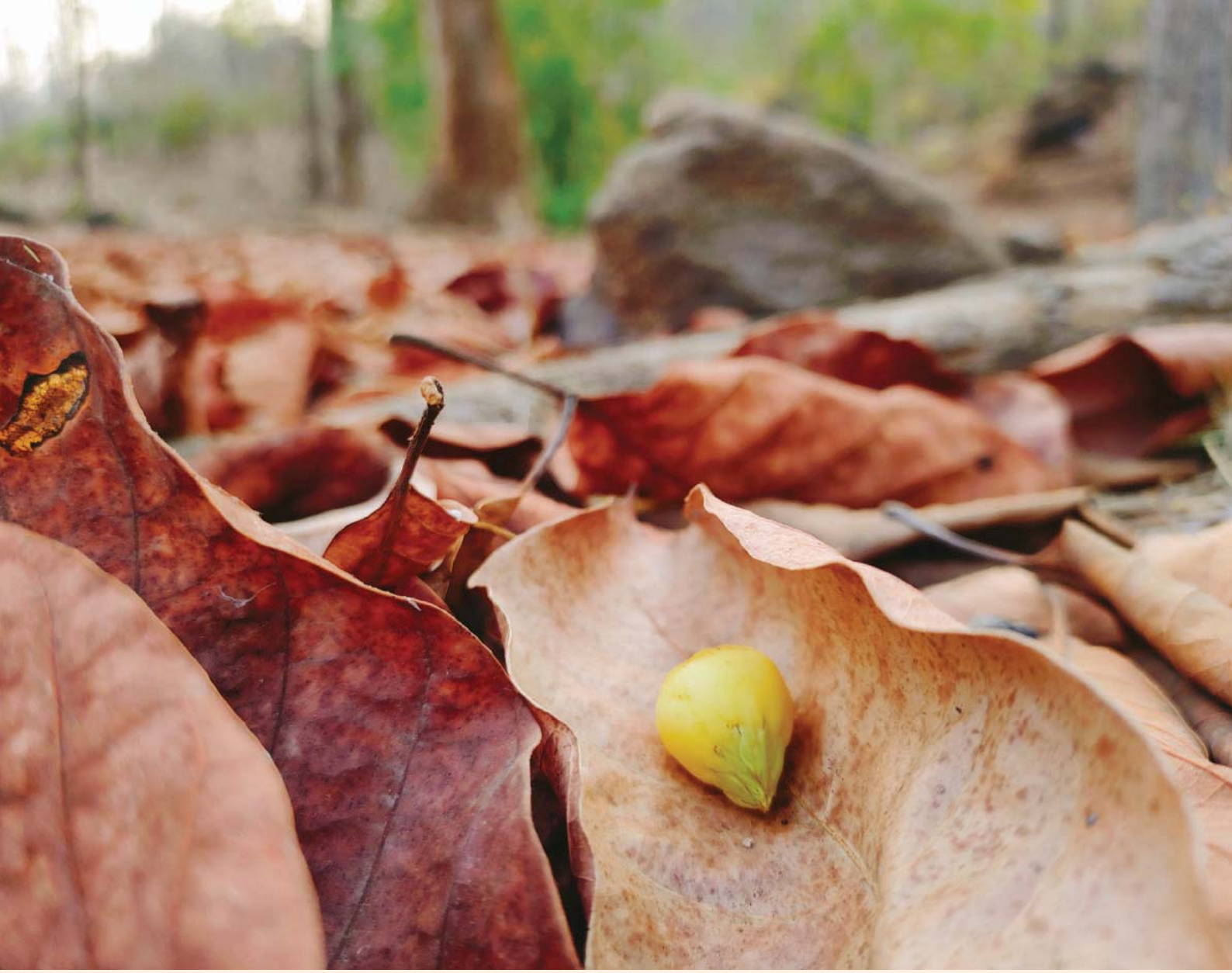
The TESF network supports collaborative research that explores how education itself needs to be transformed to be able to play a major role in developing more sustainable society.

Eklavya Foundation is a non-profit, non-government organisation located in Madhya Pradesh, India. It works with teachers, students and communities with the vision of a meaningful education for all to build an egalitarian, socially and environmentally just society.



Whose forests are these? To whom do they belong - To the animals who live in them, the forest department, industries and other development projects, or the people who have been coexisting with the forests for many, many generations? Why are we losing our forests? Who is responsible for their loss and degradation?
Who takes care of forests?

As communities whose lives are intimately connected with forests, Adivasi views and voices on these questions matter. Yet, while learning about forests and their conservation, their concerns and experiences remain sidelined. This teaching-learning module aims to understand and build on the understanding that Adivasi communities have about their environment. It further attempts to develop a critical perspective on forests and their conservation.

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