

In fight with animals? Securing livelihood for wildlife and men

Fachunterricht
Englisch
 Sekundarstufe
 Klassen 10 bis 12

KNOW YOUR WITGODGOT

KEY IDENTIFYING FEATURES IN ELEPHANTS

ears

SIZE
SHAPE
FOLD
DE-PIGMENTATION
EDGE
VEINS

Notes:
 Distinctive tears/notches/folds: like 'V', 'U', 'cup' shaped, small or big, or forwards or backwards folds.
 Some ears may also have holes. Some ears are distinctly small compared to the head and body.
 De-pigmentation occurs in ears, trunk and elsewhere. It is difficult to spot in wild elephants covered in mud.

tusks

SHAPE
LENGTH
NUMBER
DIRECTION

convergent tusks
 cross tusks
 divergent tusks
 parallel tusks

tail & body

curve/ shape of back ridge
tail
body

OVERALL SHAPE
SHAPE OF BACK
HIGHEST POINT

full hair
 scanty hair
 no hair
 flat back
 smooth curve
 head lower than back
 distinct peak

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 CREATIVE COMMONS/ATTRIBUTION/NON-COMMERCIAL THE SHOLA TRUST - 2016

photo 4.3. Elephant profile card created by The Shola Trust



photo: The Shola Trust

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Hinweise:

Seitenanordnung: **Leseversion**.
 Drucken Sie die Seiten einseitig auf A3 aus.
 Um dieses Material als Heft falten zu können, nutzen Sie die Heftversion mit angepasster Seitenanordnung.
 Die Informationen zur Situation vor Ort beruhen auf Interviews mit und Erfahrungen von unseren indischen Partner/innen bzw. Adivasi (Ureinwohner/innen) in den südindischen Nilgiri-Bergen.
 Vielen Dank für Ihr Feedback. Unsere Materialien sind kostenfrei.
 Herzlichen Dank für Ihre Spende für unsere Bildungsarbeit.

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Für den Inhalt dieser Publikation ist allein Adivasi-Kooperationsprojekt e.V. verantwortlich; die hier dargestellten Positionen geben nicht den Standpunkt der Geldgeber und des Bundesministeriums für wirtschaftliche Zusammenarbeit und Entwicklung wieder.

In fight with animals?

Securing livelihood for wildlife and men

Arbeitsblätter

Unterrichtsmaterial für den Lernbereich Globale Entwicklung

In fight with animals? Securing livelihood for wildlife and men

[1] Travel to the South Indian Nilgiri hills



1. You travel to the city of Bangalore (8.5 mill. inhabitants).



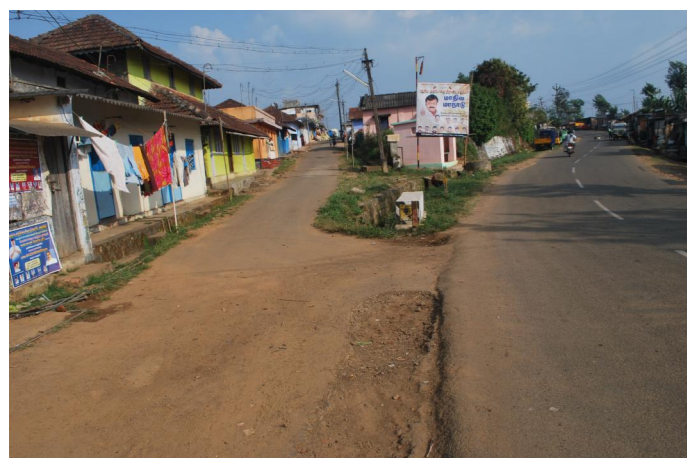
2. You travel further South to Mysore (900,000 inhabitants).



3. You pass the Mudumalai Tiger Reserve in the Nilgiris.



4. You reach Gudalur in the Nilgiris (50,000 inhabitants).



5. You travel further along street villages in the Nilgiri hills.



6. You travel along rural roads in the Nilgiri hills.

photos 1 to 6: Adivasi-Tee-Projekt

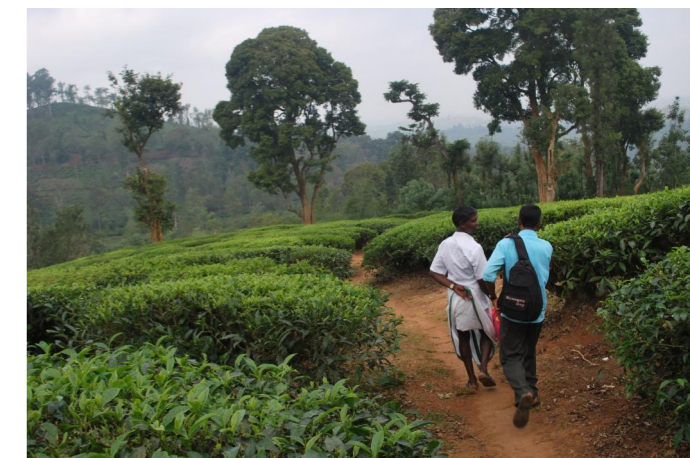
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[1] Travel to the South Indian Nilgiri hills

photos 7 & 8: Adivasi-Tee-Projekt
photo 9: Keystone Foundation.
photo 10: Adivasi Munnetra Sangam



7. You get off the bus and pass a nearby adivasi village.



8. You walk through one of the many tea plantations.



9. You walk with an adivasi family through the forest.



10. You reach Kadichankolly, one of the adivasi villages.

Lead-in:

We are going to discuss human-wildlife conflicts in the South Indian Nilgiri hills. Look at the photos and read the descriptions.

★ „Adivasi“ (also: „adivasis“) are the indigenous people of India. The term „adivasi“ literally means „first inhabitants“ in English.

Tasks:

1. Describe the travel in your own vivid words. To help you may check the travel route or further information on a map or use the internet.

2. Imagine a travel from the nearest airport in Germany to your home town. Identify differences and similarities to the travel shown in the photos here.

3. Explain how the surrounding changes from the city of Bangalore to the village of Kadichankolly. Take a special notice to population and wildlife.

4. Think of our subject of human-wildlife conflicts. What kind of wild animals might live in the Nilgiri hills? Which animals, do you think, are dangerous for humans?

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[2] Wildlife and population of the South Indian Nilgiri hills

Text 2.1: Wildlife of the Nilgiri hills

The Nilgiri hills have a wide range of altitude from 250 to 2650 metres. The tropical evergreen forest located at high altitudes is found only in Southern India and is filled with endemic species.

Since the British colonial era vast areas of forests from these hills have been cut down and replaced with tea, coffee, pepper and timber plantations of teak and eucalyptus. Tea cultivation has been the main economy of the Nilgiri area till today.

To protect the remaining forests and wildlife the Nilgiri Biosphere Reserve was declared by UNESCO in 1986. It includes six national parks and two wildlife sanctuaries in three South Indian states. The more or less continuous forest of the reserve covers an area of 5520 km².

The Nilgiri Biosphere Reserve is home to 23 % of all vertebrates found in India and is filled with large mammals like leopards, gaur (a large wild cattle species) and sambar deer. The continuous forested area also supports the largest single population of tigers (about 535) and elephants (about 5200) in India.

Tasks:

1. Read the text 2.1. Explain the Nilgiri Biosphere Reserve to an interested person.
2. The text 2.1 mentions large mammals who live in the Nilgiri hills. Debate if and how these wild animals are dangerous for people.
3. Give a presentation about the Nilgiri Biosphere Reserve using information and photos online. You may start with: https://en.wikipedia.org/wiki/Nilgiri_Biosphere_Reserve
4. a) Watch the video „Nilgiri Biosphere Reserve“ (3:56 min) at: www.youtube.com/watch?v=VzTW_eCCCwI. What did you see and learn?
b) Watch „A Day in Nilgiri Biosphere Reserve - A Lifescape to Experience“ (19:55 min) at: www.youtube.com/watch?v=XNhDo1Mb4zE&feature=share. What did you see and learn?

Text 2.2: Population of the Nilgiri hills

There are roads, tourist infrastructure and human settlements within the protected areas of the Nilgiri Biosphere Reserve and a dense population and infrastructure around it.

The original inhabitants of the Nilgiris are adivasis, the indigeneous people of India. Today about 22,000 adivasis live in the Nilgiris. The Kattunayakans are the most forest dependent of all these adivasi communities. Their villages lie within the forests and they depend a lot on minor forest produce and honey collection.

For centuries people from outside the Nilgiri hills have been migrating into the Nilgiris. Though they have lived in close proximity with the forests, they do not have a history of forest dependance. The majority of them were traditionally engaged in paddy cultivation and other agriculture.

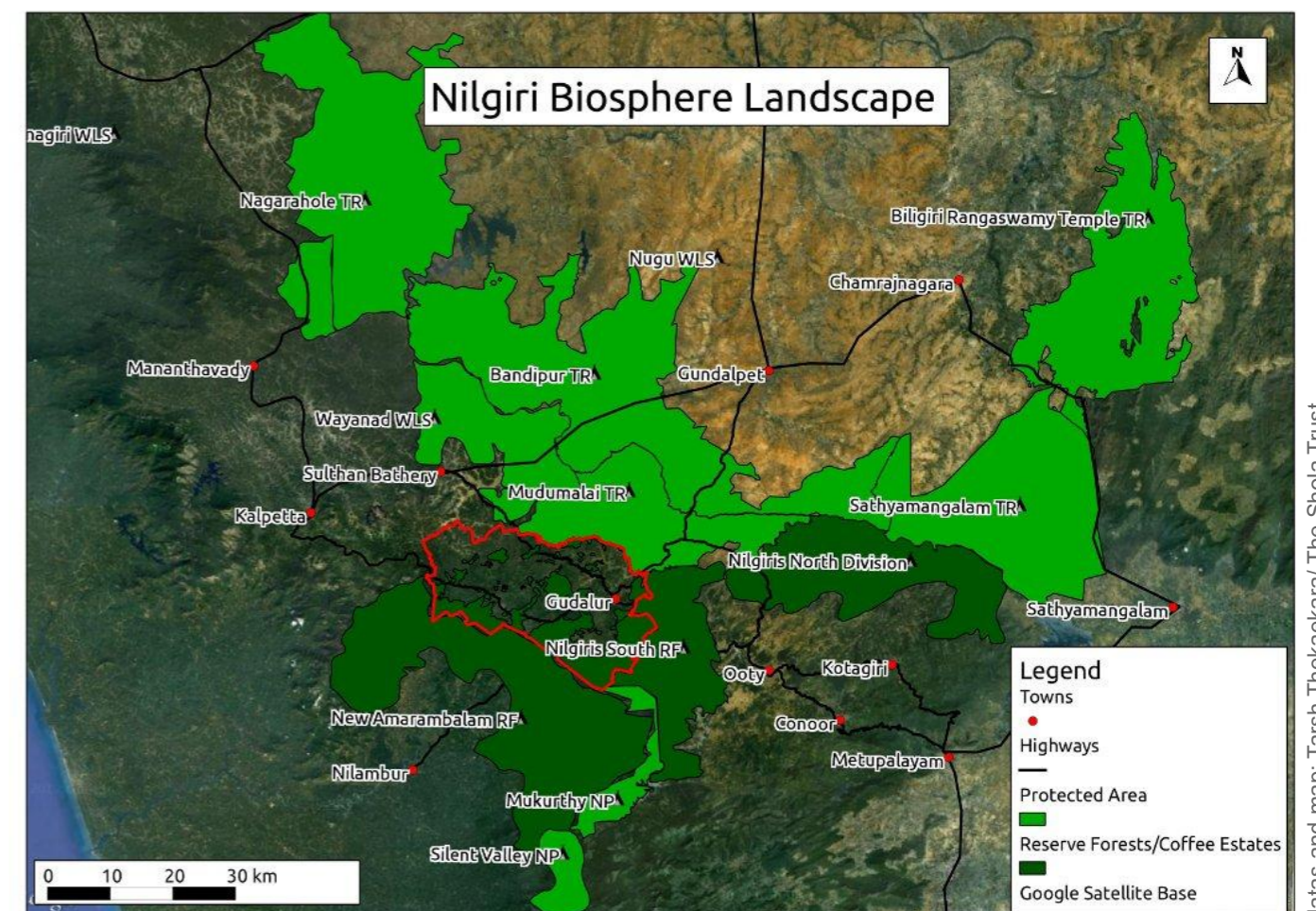
Besides tea cultivation tourism has become an important economy in the Nilgiris. There are now a total of forty four resorts in the Masinagudi area and there are more coming up everyday. The tourists are very often loud and littering the area with bottles and food wrappers. Few come for purpose of experiencing nature.

Tasks:

5. Read the text 2.2. Talk about the population of the Nilgiri hills to an interested person.
6. The text 2.2 mentions different population groups living today in the Nilgiri hills. Debate if and how the people differ in their relationship to and understanding of forest and wildlife.
7. Give a presentation about the adivasi living in the Nilgiri hills. Focus on their relation to the forests. You may start with the German information given at: <http://www.adivasi-tee-projekt.org/index.php/adivasi-ureinwohner-innen-in-den-nilgiris-bergen.html>

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[2] Wildlife and population of the South Indian Nilgiri hills



map 2.1. The Nilgiri Biosphere Landscape and the Gudalur area

Text 2.3: A shared habitat

The experiences from the Gudalur area (marked with a red line in the map) show that it is almost impossible to separate humans and wildlife as they share the same habitat.

About 230,000 people live in the Gudalur area (officially registered as Gudalur Taluk and Pandalur Taluk) as it is marked on the map. The densely populated area is surrounded by protected forest areas. The Gudalur area borders the Mudumalai Tiger Reserve in the North and Mukurthi National Park in the South and is close to Reserve Forests.

The animals live both inside and outside of the protected areas. Some even live on tea and coffee estates. Elephants for instance need a large area of habitat of about 1000 km² and cannot stay in confined reserves like the Mudumalai Tiger Reserve which covers about 320 km². Elephants need to be able to move between the protected areas and forest patches.

Tasks:

8. a) Look at the map 2.1 above. Explain the position of the populated Gudalur area (marked red). Describe what this could mean for the human-wildlife relationship in this area.
b) Identify the Gudalur area marked in the map above in a different map of the Nilgiri Biosphere Reserve which you find online at: https://en.wikipedia.org/wiki/File:Nilgiris_Biosphere_Reserve.jpg
9. a) Read text 2.3. Explain why people living in the Gudalur area and wild animals might get into contact and conflicts with each other.
b) Describe where wolves live in Germany by looking at the map at: www.nabu.de/tiere-und-pflanzensaeugetierewolfddeutschland/index.html
c) Tell your classmates about one of your encounters with a wild animal. Describe the incident and your feelings.

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[3] Human-elephant conflicts



photo featured by Google Maps

map 3.1. Human settlements and agriculture at the border of the Bandipur and Mudamalai Tiger Reserve in the Nilgiri hills



photo: The Shola Trust

photo 3.1. Deforestation in the Gudalur area of the Nilgiris

Tasks:

- Look at the map 3.1 and the photo 3.1.
 - Describe what you see.
 - Visit the website <https://maps.google.de> and find the spot of the map 3.1 with the settlements named Berambadi and Lakkipura.
 - Explain how the needs of wildlife and people's interest differ here.
- Read the text 3.1. Explain the problem of deforestation in the Gudalur area.
- Think of strategies against deforestation and discuss them with your classmates.
- What are so called green corridors?
 - Visit the website www.bund.net/tiere-pflanzen/wildkatze/projekt-wildkatzensprung/ and learn about an initiative for green corridors in Germany. What is the aim of the initiative?

Text 3.1: Deforestation

With agriculture and other land use being intensified and with the increase in purchase of land by people the areas outside of protected areas are getting highly fragmented. Elephants like other animals now find it difficult to move from one forest patch to another, as all their green corridors are being cut off.

Ramesh Mathan took the photo 3.1. He is a young adivasi man from Gudalur working with the small local conservational organisation The Shola Trust. He says:

„We have noticed the deforestation. It may not be obvious at once, but if you look at the same spot a year later you can find out that deforestation is happening. People cut trees to add a few metres to their fields, and some time later it happens again.“

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[3] Human-elephant conflicts

Text 3.2: Prakash

„My name is Prakash. I am 24 years old. I am an adivasi from the Mullakurumba community. I've got a bachelor's degree in geography. For the last four to five years I have been working for the conservational organisation The Shola Trust.

I started my work for The Shola Trust with setting up camera traps in estates and other places. There are tigers, leopards and many elephants here in the Nilgiri hills. They live in the forests, but when they don't find enough food in the forest and get lost they come to human habitations. It was my work to upload photos of the camera traps on Facebook and to write e-mails to other organisations.“



source: The Shola Trust

photo 3.2. A leopard shot by a camera trap.

Tasks:

- Read the text 3.2 and look at the photo 3.2.
 - What, in Prakash's opinion, makes the wild animals to leave the forests?
 - Summarise the problems why wild animals come into human settlements and agricultural areas. Remember what you have learnt so far or go back to the texts 2.1, 2.3, 3.1.
 - Think why camera traps are used. Share your ideas with your classmates.
- Read the text 3.3. Look at the photos 3.3 & 3.4.
 - Why won't Ramesh allow the hotel guests to walk around on their own?
 - If you were in India as a tourist, would you love to see wild elephants? Give reasons for your point of view.

Text 3.3: Ramesh

„My name is Ramesh. I am 28 years old. I am an adivasi from the Paniya community. I did a course in hotel management. Now I work at a ecotourism hotel with beautiful nature around.

We don't let our guests walk around alone – this would be too dangerous. Two wild Indian bisons live on the estate here. And there are leopards and wild elephants in the forests around. Often we see their tracks. A few weeks back a male elephant came close to our hotel building. An American girl was very happy to see the elephant while she was safe on the terrace. The elephant ate some forest fruits and went off peacefully. But they can get very angry and dangerous when they feel disturbed.“



photo: The Shola Trust

photo 3.3. People running away from a wild elephant in the Nilgiris



photo: Ashwini Adivasi Hospital Gudalur

photo 3.4. An adivasi girl injured by an elephant in the Gudalur area

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[3] Human-elephant conflicts

Text 3.4: Problems for the people

Elephants normally don't attack people, but an elephant under stress and with an aggressive nature might do so. If that happens the person attacked can only run for his or her life and most probably won't outrun the elephant.

21 persons in the Gudalur area got killed by elephants (and many more got injured) within three years. Whereas in the same area and time span 3 people got killed by tigers, as registered by The Shola Trust. The wild animal which the people of the Gudalur area fear most is the elephant.

But most accidents with wild elephants actually happen accidentally. A person walking in the mist around a corner could suddenly stand in front of an elephant. Elephants walk long ways and often use their habitual ways through nature. When they feel disturbed by people coming across their way they might injure them seriously but just trying to chase them away with their trunk. People might be successful with chasing elephants away by shouting at them – but this action might backfire at them in case the elephant turns aggressive.

When wild elephants are around children can't go to school. This is the main reason for adivasi children to miss school days, as many adivasi children have to walk through the forest on their way to school.

Elephants passing tea plantations on their way to the next forest patch are a threat for the tea pluckers and workers there. To avoid accidents the workers need to stop their work till the elephants have moved away.

A coffee or tea plantation doesn't offer elephants any food. Normally they find their food in the forest: leaves, grass, bamboo. Elephants can smell for kilometres - when they smell sweet ripe jackfruits they walk a long way to get them.

Elephants cause significant damage as they move through the area. When they smell food grains, sugar or salt stored in houses for example they might damage houses, injure and even kill people accidentally. And banana plantations offer them a nice meal.

Tasks:

- Watch the videos showing wild elephants in the Gudalur area presented by your teacher. Collect the various problems people face when wild elephants are around. As a source of information read the text 3.4.
- Read the text 3.5.

Text 3.5: Problems for the elephants

The Indian elephant has been listed as endangered. The population is threatened by habitat loss, degradation and fragmentation of forest areas. But poaching is no problem any more as it is punished by imprisonment. And probably to the same extent people are scared of elephants, they are fascinated by them. One of the gods in Hinduism, Ganesha, has an elephant head. A large majority of the people loves god Ganesha, but elephants are not seen as holy.

Although elephants are in no real danger of being killed they face problems due to shrinking forests and dense human settlements. When elephants don't find enough food they starve. When elephants get lost among human settlements they get under stress.

As shown in the photo 3.5 elephants may even die due to stress: A small group of elephants got lost outside the forest. People tried to chase the elephants away and the irritated elephants were running here and there. The forest department brought tamed elephants to guide the wild elephants back to the forest. The pressure the lost and weakened elephants felt did not immediately subside. After not eating and drinking for days the youngest elephant died.

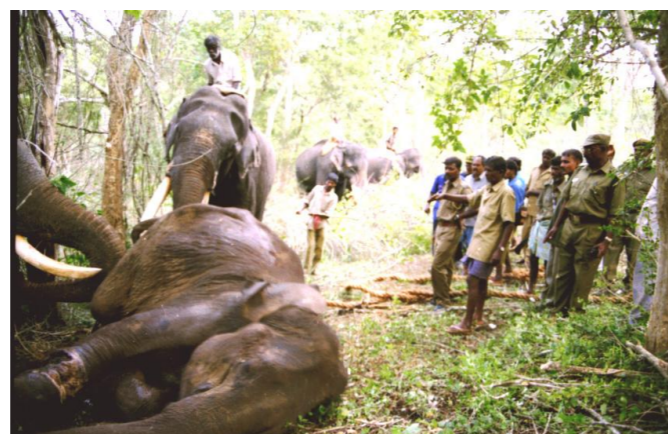


photo: The Shola Trust

photo 3.5. A young elephant died due to stress in the Nilgiris

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[4] Solving strategies for the human-elephant conflict

Tasks:

- Explain the map 4.1.
- Read the text 4.1.
 - What is the aim of Prakash's work with The Shola Trust?
 - The population of the Gudalur area is not homogeneous in their attitude towards wildlife and wild elephants. What differences can you see from what Prakash says?
- Collect ideas with your classmates or in your group how to avoid human-elephant conflicts.
 - Remember the problems you learnt about. As a source of information you may read again the texts 3.4 and 3.5.
 - Do a brainstorming and write down all the ideas. There might not be one big solution, but rather many small helpful ideas.
 - Analyse the ideas within your group: Did you consider that elephants are protected? Who will profit from your solution (farmer, tea plantation workers, school children etc.)? What might be a negative side effect of your strategy? Are your ideas practically possible?
 - Present your ideas to the class.

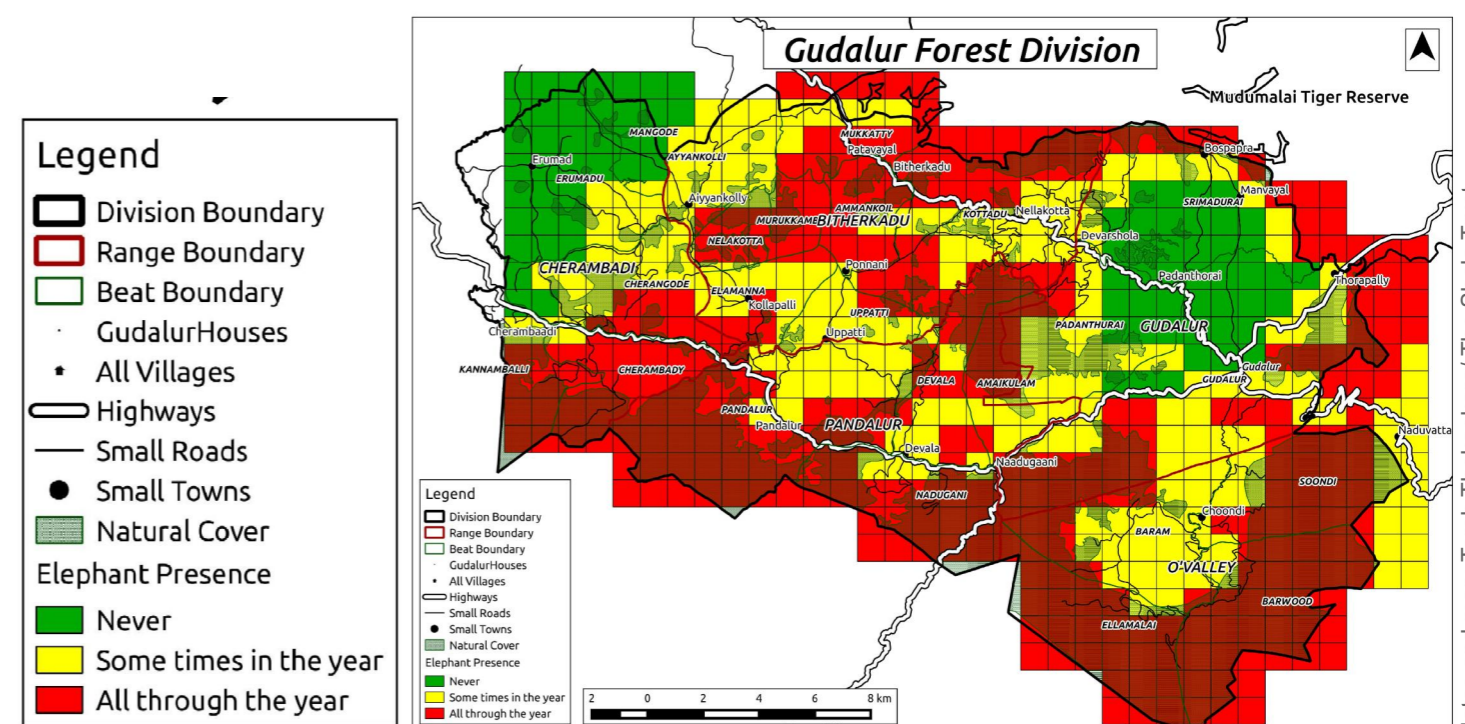
Text 4.1: In search for solutions

Prakash is a young adivasi working for the conservational organisation The Shola Trust:

„Whenever we hear of some human-elephant conflicts we go there to identify what has happened. We talk to the local people and document the details of the conflict. Wild elephants can destroy plants, damage houses and even hurt or kill people. We try to find solutions how elephants and humans can share the land without serious conflicts.

The adivasis and other local people have lived together with elephants for generations and mostly accept them. They know how to spot and how to avoid them. In fact many of us feel sorry for an elephant when it runs into an estate or settlement. It means that the elephant didn't find enough food in the forest.

Many of the people who get into conflicts with wild elephants are from outside areas. They came here to work on tea estates and the houses of the workers are close to the forests. Those people say we should capture all elephants and take them to another sanctuary. But the problem is everywhere the forests are shrinking. We try to find other solutions.”



map 4.1. Classification of elephant presence in the Gudalur area of the Nilgiri hills

datas and map: Tarsh Thekaekar/ The Shola Trust

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[4] Solving strategies for the human-elephant conflict

Tasks:

4. Read the texts.
 - a) Tell advantages and disadvantages of the strategies mentioned.
 - b) Review your own ideas according to the experiences told by The Shola Trust* team. Can you think of other solving strategies?

Text 4.2: Are fences a solution?

Answer by The Shola Trust team in Gudalur:

“See, people always think of fences immediately. And yes, in some places it may work. If you put an electric fence around the colony of tea estate workers it surely can help to protect them. But there are many problems involved with fences:

If one farmer builds a wall around his land it will help him. Elephants go the easy way. If the next land is accessible the elephant will go there and eat his bananas. If there are many walls the elephant has to go a long way to get food. By the time it reaches an unprotected land it will be hungry and irritated and might even get aggressive. Fences are not really a solution. Who will pay and repair all these fences? You can't put fences everywhere, it's simply not possible. And even if you did – where shall the elephants go? Besides, elephants are very smart. One of our video traps recorded a tusker who easily broke an electric fence, it was very impressive. Female elephants sometimes let trees fall over the fence and guide their babies to pass it. So, just for some small places fences might be useful but they won't solve the bigger issue.”

Text 4.3: What about trenches?

Answer by The Shola Trust team in Gudalur:

“People thought of trenches, yes, also not much material costs involved. There was a forest village here where they dug trenches almost all around the village – with only an entrance on one side. What happened was that an elephant entered the village and didn't find his way out...

But generally trenches are no barrier for elephants. They gently slide down and climb up at an angle. Elephants can climb the mountains here so they can climb a trench too.”

Text 4.4: So what would be the best solution?

Answer by The Shola Trust team in Gudalur:

“Elephants normally walk long distances. More forests and green corridors between the protected areas and forests would be needed. So that was one of our ideas. We wanted to raise funds to buy land to establish green corridors. We bought some land also. But land prices have shot up too much. It is just not possible to buy enough land. Not all land needed is for sale anyway. So we, from the Shola Trust, concentrate on other ideas now. But yes, reforestation would help.”

Text 4.5: Should forest dwellers be resettled?

Answer by The Shola Trust team in Gudalur:

“That's what the government thinks and some environmentalists too. They think to separate humans and wildlife would minimise conflicts. But according to us this is not needed and it wouldn't be helpful. We found out that almost all deadly accidents with elephants do NOT happen inside the forests where elephants are seen regularly, but outside the forests where elephants randomly come and where people don't have much experience how to spot elephants and how to deal with them.”

Text 4.6: What does the government do?

Answer by The Shola Trust team in Gudalur:

“It's good that people are not forcefully resettled from the forests. Now forest dwellers like adivasis have rights to live where they have been living for generations. The next generation might want to move out of the forest anyway.

A good strategy are Kumkis. Kumkis are tamed elephants used by the forest department. They are very helpful. When wild elephants are lost in settlements or plantations two or three tamed elephants guide them back to the forest. But before Kumkis reach accidents might have happened already. And *Kumkis* can't be everywhere.

So we still search for more solutions.

* The Shola Trust is a small conservational organisation in Gudalur in the Nilgiri hills. Almost all team members are adivasis.

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[4] Solving strategies for the human-elephant conflict

Text 4.7: The elephant's rights

The conservational organisation The Shola Trust is based in Gudalur. Tarsh Thekaekara, a young local scientist, and his team of adivasi environmentalists try to find innovative solutions to avoid human-elephant conflicts. Tarsh explains: „We inform and teach people to learn from the peaceful coexistence of adivasis with elephants. Adivasis often see the situation from the animal's perspective as well. It is the attitude of almost all the adivasis here to say, the elephant should not be here, but now it is and it has some rights – the rights to behave as elephants do and to eat. People warn each other about elephants nearby and adjust their behaviour as much as possible till the elephant moves away. If they can't use their ripe jackfruits immediately they leave them outside their land for the elephant so that it won't damage their house accidentally. This attitude is our approach to avoid human-elephant accidents.”

Tasks:

5. Read the text 4.7. Which attitude helps to avoid human-elephant accidents according to Tarsh? Do you agree or disagree and what are your arguments?
6. Read the text 4.8., look at the map 4.2 and the photo 4.3. Name and explain the two strategies of The Shola Trust to avoid human-elephant accidents.
7. Discuss the situation of wolves coming back to Germany. What are similarities and differences to the situation with elephants in the Gudalur area? How to avoid human-wolf conflicts?

Text 4.8: Individual characters

Ramesh, a young adivasi working for The Shola Trust explains:

„Not all elephants are the same. They have different characters just like humans. One elephant is just curious and the best will be to leave him alone. One elephant runs away from noise, another one from lights. But the next elephant will get aggressive when you shout at him or start fireworks to chase him away.

The main work of our team is to create elephant profiles. We follow the elephants and observe them intensively. We watch the behaviour of individual elephants and document their key features. Their ear venes are absolutely individual just like human finger prints. But easier to identify are the shape of the ears, tusks, body and tails. Each elephant gets a name and a profile card.

Our team can so far identify about 100 individual elephants with their features and characters. It is very difficult and takes a lot of experience. We teach people. Often the same elephants come to visit and those few elephants the people can learn to identify.

Our second strategy to avoid human-elephant accidents is a warning system. People report the sighting of an elephant, we feed the information into the website and all people who registered get a message where to avoid which elephant. This is very effective. It is so effective that other organisations and the forest department want to learn from us.”



map 4.2. Online map of the warning system developed by The Shola Trust