

graphic 4.1: Dimensions of sustainable development.

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### **Fachunterricht**

# **Englisch**Sekundarstufe

Klassen 10 bis 12



#### Impressum

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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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## **Just sweet?**

# Honey as a natural product

## Arbeitsblätter

Unterrichtsmaterial für den Lernbereich Globale Entwicklung

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## Just sweet? Honey as a natural product

#### [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 reach Gudalur in the Nilgiris (50,000 inhabitants).



4. The Nilgiri hills range from 250 to 2,650 metres.



5. The Nilgiri hills are an important tea growing area.



6. In the valleys and villages people sustain themselves through agriculture.

## Just sweet? Honey as a natural product

#### [1] Travel to the South Indian Nilgiri hills

Photos 7 to 9: Adivasi-Tee-Projekt photo 10: Adivasi Munnetra Sangam



7. The remaining forests are protected for the huge wildlife.



9. Adivasis (indigenous people) are native to the Nilgiris.



8. The Nilgiri hills are home to 5,200 elephants.



10. Many aspects of their life are linked to the forest.

#### Lead-in:

We are going to discuss the honey hunt done by the Adivasi in the South Indian Nilgiri hills. Look at the photos and read the image descriptions.

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

#### Tasks:

1. Describe the travel to and through the Nilgiri hills in your own vivid words. As a help you may check the travel route or further information with the help of a map or the internet.

- 2. Explain how the surrounding changes from the city of Bangalore in the first photo to the forest village in the last photo.
- 3. To keep a balance between a) the needs of nature and wildlife, b) people's interests in getting a living and c) the demands of the economy is the challenge for a sustainable development everywhere. Try to describe different interests and challenges in the Nilgiris with the help of the photos.
- 4. Think of our subject: What do you think where and how will the adivasi get their honey? Where and how do the inhabitants of Bangalore city get honey? Where do you get your honey from?

## Just sweet? Honey as a natural product

#### [2] Livelihood of the adivasis

#### Text 2.1: Adivasis, indigenous people of India

The Indian term "Adivasi" literally means "first inhabitants" in English. The adivasis make up about 8.6 percent of the total Indian population of more than one billion inhabitants. This means that there are about 104 million adivasis in India according to the Indian census in 2011.

Adivasis live all over India, but mostly in rural, hilly and forested areas. Only about 10 percent of adivasis have migrated to the cities in search of work and income.

Adivasis are not a homogeneous group. There are hundreds of adivasi communities with different languages, different rites and customs. Some of these adivasi communities count a few million members, like the Gonds, Bhils or Santals. Other adivasi communities have always been small, but have shrunk even more during the last century. On the Andaman Islands there are adivasi groups with less than 100 members and it is believed that those groups probably die out in future.

Despite their ethnic diversity the adivasi communities have some characteristics in common as adivasis. For the Indian government this includes a (usually remote) settlement area which they have inhabited first, an own language or dialect, a simple life in close dependence of nature and forests (sometimes as hunters and gatherers), a religious belief in living nature.

The United Nations recognise one more characteristic for indigenous people worldwide which is also true for the adivasis in India: Adivasis just like indigenous people elsewhere suffer (to different extents) from discrimination or the pressure of assimilation in their societies. Adivasis and other indigenous people suffer from land grabbing and nature exploitation in the course of globalisation. Therefore poverty and a loss of culture and identity are a constant threat to the indigenous population.

This also affects more or less the adivasi communities in the South Indian Nilgiri hills.

#### **Text 2.2: The importance of the forests**

The adivasi communities of the Mullakurumba, the Paniya, the Bettakurumba, the Kattunaicken and others are the first inhabitants of the South Indian Nilgiri hills. Their traditional life has been closely linked to the forests of the area. The forests used to offer drinking water and a variety of food like meat, fresh water fish, vegetables, fruits and eadible roots. Trees, forest grasses and bamboo plants supply fuel wood and material for constructing houses and making household items. The forest grasses and grains feed cows and chickens. The fertile soil of the valleys is suitable for cultivating rice or bananas. Mud and loam are used to cover the walls of the houses. Last but not least medicinal trees and plants and honey are important forest products.

Life is changing for the adivasis in the Nilgiri hills too. But the forests still play a crucial role for the livelihood of many adivasis. Hunting is not allowed anymore, so adivasis won't hunt deers or wild boars nowadays, but they may still hunt rabbits and birds. Collecting forest produce is allowed today by law for all people who have lived in and around the forests for generations. Especially the adivasis of the Kattunaicken community live inside the forests and depend on forest produce.

#### Tasks:

- 1. Read the text 2.1.
  - a) Explain who adivasis are.
  - b) Compare the population of adivasis in India to the total population of Germany.
  - c) What describes adivasis as the indigenous people of India? Remember what you know about indigenous people elsewhere.
- 2. Read the text 2.2. and look at the photos 2.1 to 2.6. Indicate how nature and forest are important for the livelihood of the adivasis in the South Indian Nilgiri hills.
- 3. Explain how nature and forest are important for your own livelihood. Talk about where your everyday products come from and describe the ecological importance of forests.

## **Just sweet? Honey as a natural product**

#### [2] Livelihood of the adivasis



2.1. Adivasi house made of bamboo, loam, grass, frond



2.3. Adivasi woman collecting rain water



2.5. Adivasi man making a bamboo basket



2.2. Adivasi house made of bamboo, loam and tiles



2.4. Adivasi couple collecting jackfruits from the forest



2.6. Adivasi women transplanting rice plants

## Just sweet? Honey as a natural product

#### [2] Livelihood of the adivasis

#### **Text 2.3: The need for money**

T.K. Ayyappan is an adivasi of the Mullakurumba community living in the village Theyyakunni in the South Indian Nilgiri hills. He explains:

"Previously the forest was our common property and met all our needs. But today the world has changed and we can't live of the forest alone. Today we need money. Many adivasis are still poor. They are day labourers and don't earn much by plucking tea. Their income may be enough for food and basic daily needs, but they cannot pay for a good education for their children."



2.7. The adivasi T.K. Ayyappan and his son Ashridh.

#### **Text 2.4: What Gangadaran wants**

"My second son Prasad is 18 years old. He studies in 12th grade. The monthly fee for him is 750 Rupees, he studies at a private High School. The government schools don't provide good education. Prasad is slow in learning. I wish he would study better and go for higher education. He says, he wants to become an architect. Whatever our children wish to study or work I will support. My eldest son doesn't earn much, but he has freedom in his work which is nice. Once he starts a family he will need more money."

Gangadaran is an adivasi of the Mullakurumba community. His family lives in the village Nedungode in the Nilgiri hills.

#### **Text 2.5: What Ramesh wants**

"For my future I wish to work here at this hotel only. I like everything about this work. I earn a salary of 11,000 Rupees, my wife gets 5,700 Rupees as a nurse at the Ashwini Adivasi Hospital. Our daycare for our baby is directly in the hospital and free for the staff members. So we can manage well and support our parents and my younger sister."

Ramesh is an adivasi of the Paniya community. He lives in the town Gudalur in the Nilgiri hills.

#### **Text 2.6: What Bindu wants**

"I wish to build a bathroom. So far we only have a simple open air bathroom and toilet with just a plastic sheet around. Our new bathroom shall be a small brick building next to our house. But it will cost 50,000 Rupees. For that we have to save some more money.

My wish for the future is that my daughter Vaishna does well in her exams. She wants to become a doctor. This would be great. Maybe she would be the first adivasi in our area to become a doctor. But for her studies we need money. And she has to perform well in her exams. Then she might get a stipendium."

Bindu is an adivasi of the Paniya community. She lives in the village Pattavayal in the Nilgiri hills.



2.8. The house where Bindu, her daughter & parents live.

## Just sweet? Honey as a natural product

#### [2] Livelihood of the adivasis

#### **Text 2.7: What Lalitha wants**

"My salary is not high, but I can manage. I am not married and live on my own in Gudalur. Every month I can save a small amount. Besides my rent I have to spend money on food, clothes, furniture and household items, electricity, TV, my phone and any travel expenses.

But I don't travel much. It has been a long time that I visited other places like *C*hennai, Trivandrum, Mysore or Ooty. Every second weekend though I visit my village Kappala. There I spend one day with my brother Krishnan and his family and one day with my brother Ashokan and his family. In the evenings after work I go to town for some shopping. Then I watch TV and cook my dinner. I am happy in Gudalur."

Lalitha is an adivasi of the Mullakurumba community. She lives in the town Gudalur in the Nilgiri hills.

#### Text 2.8: What Prakash wants

"There is enough work for me to work full time. But sometimes I take time off to join cultural festivals or family functions in our village. If I don 't work I don't get money. Now I have to be at home for three months because I broke my leg in a road accident. So, now I don't get any salary. But when my leg is healed I will go back to work.

The salary is not much, but whatever money I get is enough for me. I can manage. I do this job because I really like the work and our team.

Together with my friends we go to nearby places by bike. My friends all have their own bike, I go by my father's bike. We go to the view point near Gudalur or to the elephant camp in Theppakadu. We even went to Ooty which took us three hours to get there.

Prakash is an adivasi of the Mullakurumba community. He lives in the town Gudalur in the Nilgiri hills.

#### **Text 2.9: What Vijitha wants**

"My brother didn't pass his 10th grade exams. Now he gets extra tutions. He will write his 10th exams again next year.

After school I want to become a nurse. Money is not my motivation. I want to be a nurse, because I want to work for the health of my community. As a village nurse I will be responsible for about 30 villages. Each village I will have to visit at least once a month. Regularly I need to do a health check of the pregnant women, the newborn babies and small children, the elderly people and the chronically ill patients. I will be trained to give medicines and do basic treatments. For serious health problems I will have to refer the patients to hospital."

Vijitha is an adivasi of the Paniya community. She lives in the village Kottamangalam in the Nilgiri hills.

#### Tasks:

- 4. Read the text 2.3.
  - a) Why do the adivasis need money?
  - b) How does the forest used to meet all the needs of the adivasis? Remember what you have learnt or go back to the text 2.2.
- 5. Create a chart or mind map to show...
  - a) ...which needs of the adivasis can be fulfilled by forests.
  - b) ...what do the adivasis need money for despite the fact that they live close to forests.
  - c) ...what do the adivasis need money for if they do not live near the forest.

First use your imagination. Then read the texts 2.4 to 2.9 and review your thoughts.

6. Identify for what adivasis need money nowadays. Read the texts 2.4 to 2.9 and generalise the statements given. Add your ideas to the ones mentioned in the texts.

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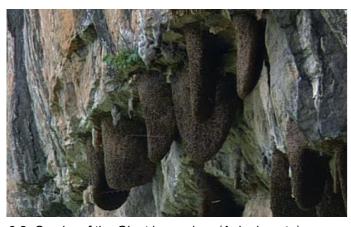
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## Just sweet? Honey as a natural product

#### [3] Wild honey of the Nilgiris – the story behind a product



3.1. Comb of the Giant honey bee (Apis dorsata) attached to a tree in the South Indian Nilgiri mountains



3.2. Combs of the Giant honey bee (Apis dorsata) attached to cliffs in the South Indian Nilgiri mountains



3.3. Giant honey bee (Apis dorsata) pollonate a flower

photo 3.1: Keystone Foundation

photos 3.2 to 3.5: Camera stills of the film "Honey Hunters of the Blue Mountains", by Keystone Foundation & Riverbank Studios



3.4. Larvae of the Giant honey bee (Apis dorsata) breed within their cells of the broodcomb



3.5. Adult Giant honey bees (Apis dorsata) emerge from their cells in the broodcomb

#### Text 3.1: The Giant honey bee

From February to March the Giant honey bees (Apis dorsata) come to the cliffs in the South Indian Nilgiri mountains and lay their eggs into the cells of the broodcombs. In 21 days the whole cycle from egg stage to adult bee is complete.

May is the peak blooming time of the year in the Nilgiris. Giant honey bees and other smaller bees are crucial pollonators of the mountain ecology.

A rich brood reflects a thriving ecosystem. Giant honey bees lay eggs frequently only if there is enough pollen and nectar to feed their young, that is why they are crucial indicators of the stage of ecology that sustains them.

With the beginning of the rainy season in June the Giant honey bees migrate to lower areas.

## Just sweet? Honey as a natural product

[3] Wild honey of the Nilgiris – the story behind a product

#### Text 3.2: Honey as a forest product

A honeycomb is a mass of wax cells built by honey bees in their nests to contain their larvae and stores of honey and pollen.

The Giant honey bee (Apis dorsata) is mainly found in dense forested areas of South and Southeast Asia. It is one of the largest honeybees in the world and contributes two third of the total production of honey in India. Each colony consists of a single comb which can reach up to one metre in width. The nests are mainly built in exposed places far off the ground, like on tree limbs and under cliff overhangs. This bee can form dense aggregations at one nesting site, sometimes with up to 200 colonies in one tree.

Indigenous peoples like the adivasis of the South Indian Nilgiri hills have traditionally used the Giant honey bee as a source of honey and beeswax, a practice known as honey hunting.

Honey hunting is a skilled work which is passed on to trainees over years. One of the dangers is that the Giant honey bees are known for their aggressive defense strategies. Just five stings can be deadly for an adult man.

To get the honey the upper portion of the hive has to be reached – this is the honey storage area. The lower crescent is the broodcomb.

#### Tasks:

- 1. Explain what a honeycomb is. You may look at the photos 3.1 and 3.2 and read the first paragraph of the text 3.2.
- 2. Explain the ecological importance of bees. Why is the Giant honey bee a crucial indicator of the stage of ecology? You may look at the photos 3.3 to 3.5 and read the text 3.1.
- 3. Explain what the term "honey hunt" means. You may look at the photo 3.6 and read the paragraphs 3 to 5 of the text 3.2.
- 4. What do the adivasis hunt honey for? Remember what you have learnt about the importance of forest produce and money for their livelihood. You may look at the photos 3.7 and 3.8 and read the paragraph 3 of the text 3.2 above.



3.6. Adivasi men spot honeycombs on a tree



3.7. An adivasi man with a honeycomb



3.8. An adivasi boy with a honeycomb

photos 3.6 to 3.8: Adivasi Munnetra Sangam

## Just sweet? Honey as a natural product

#### [3] Wild honey of the Nilgiris – the story behind a product

#### Tasks:

and honey hunters.

related to the film
"Honey Hunters of the Blue Mountains"

The film documents the lives of the Kurumba adivasis in the Nilgiri hills, who are forest dwellers

- The English word "tribe" in the film is used synonymously for "adivasi community", the words "tribals" or "tribal people" stand for "adivasis" or "adivasi people".
- 5. The practise of collecting wild honey by the adivasis is known as "honey hunting". Try to explain why the people doing this work are described as "honey hunters" and not as "honey collectors" or "honey gatherers". Review your answer after seeing the film.
- 6. a) Watch 10 minutes of the film: from minute 11:23 up to minute 20:58. These scenes describe main parts of the honey hunt on cliffs and on trees.
  - b) Watch the whole film (33 minutes).
  - c) Watch the sequences of the film chosen by your teacher.
- 7. Share your impressions of the film sequences you saw; use adjectives to characterise the honey hunt according to your own impression.
- 8. Answer the following questions:
  - a) At the beginning of the film the boy Visu returns to his village. Why had he left his village and why does he come back now?
  - b) Where do the honey hunters find their honey? What materials do they use to harvest the wild honey?
  - c) How do the Kurumba men prepare themselves for the honey hunt? What makes the honey hunters fearless?
  - d) What do the honey hunters do to preserve the bee populations?
  - e) What are the reasons that the honey production has dwindled?



3.9. Honey hunted by the Kurumba adivasis in the Nilgiris

9. Form groups, discuss the following questions and present the results of your group to your classmates:

#### I) economic efficiency:

Wild honey is an economically significant forest product. How could more profit or more jobs be generated from it?

Wild honey is a healthy and tasty product. How could it be provided to more customers?

#### II) social justice:

Honey hunting gives a seasonal income to the traditional honey hunters. How could their income be increased?

Honey hunting includes many risks. How could social security be guaranteed to the honey hunters?

#### III) ecological compatibility:

How does the forest give a livelihood to the adivasis as traditional forest dwellers and in what way is the forest important to all of us?

What is the ecological importance of bees and what would happen without bees?

#### IV) cultural sensitivity:

Forest and forest produce are important for the lives of the adivasis as traditional forest dwellers. What would happen to their culture and identity as adivasis and to their sense of community without access to the forest and forest produce as well as without the honey hunt?

What could that development mean for the individual adivasi?

## Just sweet? Honey as a natural product

[4] Sustainable development – the story behind your product

#### **Text 4.1: Sustainable development**

Development has many aspects: Does the economy grow? Does poverty disappear? Is the environment preserved? Can the people live according to their customs and culture? Can the people tell their opinion and decide what shall happen in their village, town or society?

Sustainable development aims to recognise all these aspects. This is not easy as there are many conflicts of interests: Economic growth might endanger the natural ressources; the preservation of natural ressources limits the satisfaction of the needs for livelihood and prosperity; the profits of a company and its shareholders often are opposed to the interests of the employees etc.

Sustainable development aims to balance economical, environmental and social aspects and interests in a democratic way, as this is seen by the United Nations as the basis for human survival and peace.

#### Tasks:

- 1. Explain what "sustainable development" means. To help you may read the text 4.1. and look at the graph 4.1 on page 12.
- Analyse the results of the groups and identify conflicts of interest. For instance: Activities for more profit might have negative effects for the environment. A ban on the honey hunt might affect the honey hunters in a negative way.
- 3. Sustainable development means to balance the interests and solve the conflicts of interest in a democratic way. How could this be done?
- 4. Imagine the honey hunters in the Nilgiris would harvest all honeycombs in one season to increase their income. What would happen immediately and what would happen in future? Bear in mind that bees are not the only but very important pollinators.
- 5. The bee mortality, officially called as Colony collapse disorder, is an ecological hazard. Find out about its reasons and its ecological and economic effects. You may start at:

https://en.wikipedia.org/wiki/ Colony\_collapse\_disorder

#### **Text 4.2: They story behind your product**

Anita Varghese explains:

"The story behind a product is its story of growth and harvest, production and trade. I work for the Keystone Foundation, an organisation in the Nilgiri hills. We help the traditional honey hunters to improve the quality and marketing of their honey, always with the preservation of ecology in mind.

I really like the story behind this wild forest honey as it supports a sustainable development:

The honey hunters get a better price for their hard work. So their families can make a better living. This gives this traditional skilled work of honey hunting a chance to survive in future. And so it gives the deep relation of the Kurumba adivasis to the bees, the honey, the forest produce and the forest a chance to be passed on to the next generation of young adivasis. Only if ones community is intact and ones identity is strong we are capable to master our future. The traditional honey hunt also preserves the ecology. Not only do some bee colonies always stay intact, it even seems to us that the bee populations are strengthened by the partial honey hunt. With our marketing and educational work we want to increase the customer's respect for the nature and its produce. I love the story of this product. Besides, this honey is especially tasty!

Each product has a story, you may know it or not. When you choose a product, you choose a certain way of production and trade along with it. Make sure the product had an ecological and fair production and trade. As a customer you can support sustainable development every day."

#### Tasks:

- 6. Read the text 4.2. Why does Anita Varghese like the wild forest honey of the adivasis? How can you support sustainable development?
- 7. Choose a honey product (at your home or at a shop) and try to find out its story of production and trade. Find out the geographic origin and the meaning of its labels, if any.
- 8. In what way do regional products, organic products and fair trade products support sustainable development?