

# Learning pack #9

Teaching materials for schools and educational institutions  
For students aged 12 to 16 years old



# Ancestral treasures

Environmental protection  
using Indigenous knowledge



# Imprint

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# Editorial

In the searing heat, motorboats carried us and a camera team across the Amazon where we boarded canoes for an onward journey along narrow waterways through dense tropical rainforest. Huge crocodiles lay on the narrow riverbanks, while others swam close to our wobbly canoes. Colorful parrots screeched overhead and insects large and small buzzed all around us. The nature was breathtaking. Our trip, back then in 2012, was to meet the Quechua people living in Ecuador's Yasuni National Park. One of several Indigenous peoples native to the richly biodiverse region of rainforest, they live from hunting, fishing and the land.

We met women and men who were desperate. One of the largest oil fields in Ecuador is located in the Amazon region of the Yasuni National Park, and they were afraid their habitat was going to be destroyed.

Oil extraction endangers the unique biodiversity of the region, and with it the Quechua people who have long lived there. They are just one among many Indigenous groups across Ecuador. More than 40% of the population of the South American country has Indigenous roots. Some still maintain their traditional ways of life, their language, their music and their culinary customs, while others have had to adapt to a Western way of living because their traditional habitat has been destroyed. Many now live in poverty.

According to the United Nations, there are some 370 million Indigenous people worldwide. What are their traditional cultures and customs like? How can these traditional cultures and customs be used to protect the environment? What are the threats facing Indigenous ways of life?

Meeting the Quechua made me realize that the preservation of Indigenous habitats is important for us all. Whether in the warm, subtropical Amazon region, or in Siberia with its freezing winters. This exciting learning pack offers an insight into the topic.



Yours faithfully,

A handwritten signature in black ink that reads "Manuela Kasper-Claridge". The signature is written in a cursive, flowing style.

**Manuela Kasper-Claridge**

*Project leader, Global Ideas  
Editor-in-chief, Deutsche Welle*

# Introduction

This booklet is part of the **learning pack** “*Ancestral treasures – Environmental protection using Indigenous knowledge*” published by Deutsche Welle (DW) and produced by the editorial team from the environmental series **Global Ideas**. It is designed to help teachers prepare and give classes. The content is aimed at children between the ages of 12 and 16, but the materials can also be used outside school settings by environmental groups.

The pack contains four modules with **worksheets** that can be copied for participants, and explanatory **handouts** for teachers. Where necessary, these include solutions. The modules build on each other but can also be used independently of one another. Suggested lesson durations should be regarded as general guidelines. You are the best judge of the pace at which your group learns.

**Articles** and **films** are intended to be used as learning tools. Where necessary and possible, students should watch the films several times in order to complete the film tasks. It would be helpful, but is not essential, for students to have their own devices on which to watch the films. You will find instructions on how to play the films on the last page of this booklet.

The print version of the learning pack includes a **DVD** containing all the educational material. You will find an overview of all films and articles in the **media index** on the last page.

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For distance learning, we also offer an interactive **workbook for participants**. This only includes worksheets for independent study on a computer, as well as links to the films and articles.

You will find the PDF “Workbook for participants,” which can be filled out, as well as all other materials under “Downloads” on the website for **learning pack #9 “Ancestral treasures – Environmental protection using Indigenous knowledge”**: [dw.com/Indigenousknowledge](http://dw.com/Indigenousknowledge)

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## Tip

If you are interested in other learning packs for either distance or face-to-face teaching, take a look at our website: [dw.com/learning-environment](http://dw.com/learning-environment)



Icon for handouts



Icon for worksheets

# Structure

An introduction to Indigenous peoples: What are their traditional cultures and ways of life? How do their methods and traditions serve as examples for environmental protection? In this learning pack, you and your group will explore Indigenous knowledge, ancient traditions and environmental protection from different perspectives. There are four modules, each of which has a different focus.

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## **Module I – Background and problem**

The first module offers an insight into different Indigenous peoples and reveals the problems they face worldwide. You can start off with a film that explains the term “Indigenous peoples.” Participants make a poster, and by watching another film and reading an article, they are introduced to two different Indigenous groups.

## **Module II – Modern use for old knowledge**

In the second module, participants learn more about two environmentally friendly traditions used by Indigenous peoples. The information is delivered in two films. These examples open participants to the wealth of experience in their own culture. Having been made aware of the value of traditional methods, participants should conduct an interview to find out more about old knowledge in their own culture where they live.

## **Module III – Preserving old traditions with modern means**

The third module shows how Indigenous traditions dating back centuries and even millennia can be preserved using modern means. Two articles and a film present selected projects that help Indigenous peoples keep their customs and ways of life alive. Participants delve into and reflect on these projects. They participate in a role-play exercise, write a fictional funding application and design an advertising campaign.

## **Module IV – Taking action**

In the fourth module, participants are presented with concrete action steps. In one article, they will be introduced to a young man and a young woman who present their respective Indigenous cultures on social media. The article is an opportunity to expose prejudice and clichés about Indigenous people. To finish, participants get creative themselves and write poems, songs or other creative texts in which they deal with Indigenous ways of life as examples of sustainability.

# Module overview

## Module I – Background and problem

An introduction to Indigenous peoples and the problems they face. How can they protect their cultures and how can they contribute to greater environmental awareness?

Duration	Content	Learning objective	Material and links
45 min	Traditions and problems facing Indigenous peoples	Gaining first insights into the lives of Indigenous peoples, becoming familiar with the definition of the term	<p><b>Film 1</b>            "Indigenous peoples and their knowledge of nature"  <a href="http://dw.com/p/3vByc">dw.com/p/3vByc</a></p> <p><b>Handout 1</b></p> <p><b>Worksheet 1</b>            (make a poster)</p> <p><u>Material</u>            Poster paper, pens, scissors, glue</p>
25 min	Russia: Reindeer are suffering as a result of climate change	Introducing the problems facing Indigenous peoples through the example of the nomadic Nenets in Russia	<p><b>Film 2</b>            "Reindeer and their nomadic herders face climate change"  <a href="http://dw.com/p/3gOPd">dw.com/p/3gOPd</a></p> <p><b>Handout 2</b></p> <p><b>Worksheet 2</b>            (Text with gaps)</p>
30 min	Ecuador: Legal success of Indigenous peoples	Understanding the self-image and influence of the Waorani	<p><b>Article 1</b>            "Nemonte Nenquimo: Indigenous and victorious"</p> <p><b>Handout 3</b></p> <p><b>Worksheet 3</b>            (Questions about the article)</p>

## Module II – Modern use for old knowledge

Looking at traditional, environmentally friendly methods: The examples of Indigenous peoples open participants to the wealth of experience in their own culture.

Duration	Content	Learning objective	Material and links
60 min	Modern use for old knowledge	Becoming familiar with exemplary Indigenous methods	<b>Handout 4</b>  <b>Worksheet 4</b> (Description of method)
	<b>Subject 1</b> <b>Chinampas</b>	Understanding how traditional knowledge can be advantageous for renaturing projects today	<b>Film 3</b> "Mexicans turn to ancient Aztec floating gardens to revive mangrove forests" <a href="http://dw.com/p/3JLLk">dw.com/p/3JLLk</a>
	<b>Subject 2</b> <b>Cocoa farming</b>	Understanding how traditional knowledge can be advantageous for farming in harmony with nature today	<b>Film 4</b> "Panama: Fairer chocolate from the forest" <a href="http://dw.com/p/3eE9D">dw.com/p/3eE9D</a>
60 min + individual interview time	Environmentally friendly traditions and methods from your own region	Getting to know traditional local knowledge	<b>Handout 5</b>  <b>Worksheet 5.1</b> (Interview) <b>Worksheet 5.2</b> (Write instructions)



## Module III – Preserving old traditions with modern means

Old traditions and modern means can complement each other in the protection of the environment and natural resources.

Duration	Content	Learning objective	Material and links
45 min	Brazil: Indigenous people use an app to protect their habitat	Introducing the problems facing Brazil's Indigenous peoples	<p><b>Article 2</b> "Brazil's Indigenous groups go mobile to protect the forest" <a href="http://dw.com/p/32nER">dw.com/p/32nER</a></p> <p><b>Handout 6</b></p> <p><b>Worksheet 6</b> (Role-play)</p>
25 min + 60 min	India: Modern business model designed to help camel nomads	Introducing the problems facing India's camel nomads	<p><b>Film 5</b> "India's camel nomads compete for a place in the modern world" <a href="http://dw.com/p/38fcs">dw.com/p/38fcs</a></p> <p><b>Handout 7</b></p> <p><b>Worksheet 7.1</b> (Table)</p> <p><b>Worksheet 7.2</b> (Funding application)</p>
60 min	South Africa: Edible insects	Understanding the interaction between science and traditional methods	<p><b>Article 3</b> "Biodiversity: Protecting South Africa's edible insects" <a href="http://dw.com/p/3mku1">dw.com/p/3mku1</a></p> <p><b>Handout 8</b></p> <p><b>Worksheet 8</b> (Advertising campaign)</p>

## Module IV – Taking action

What can I do?

Duration	Content	Learning objective	Material and links
60 min	Social media	Understanding the interaction between Indigenous culture and social media	<p><b>Article 4</b> "Cultural war with bow, arrow and smartphone"</p> <p><b>Handout 9</b></p> <p><b>Worksheet 9</b> (Social media commentary)</p> <p><u>Optional:</u> Social media video "Meet Brazil's Indigenous influencers" <a href="http://dw.com/p/3sVVd">dw.com/p/3sVVd</a></p> <p>(A smartphone or tablet with internet access is required)</p>
60 min	Creative writing for intact nature	Introducing creative methods for environmental protection	<p><b>Film 6</b> "Colombia: Young, Indigenous people fight to preserve their culture" <a href="http://dw.com/p/3ZxRy">dw.com/p/3ZxRy</a></p> <p><b>Handout 10</b></p> <p><b>Worksheet 10</b> (Creative writing)</p>

## Module I – Background and problem

## Handout 1



# Traditions and problems of Indigenous peoples

**Duration: 45 min**

Most Indigenous peoples have traditions and customs that are in harmony with nature. But climate change, logging and land grabbing are making it increasingly difficult for them to hold onto their traditional ways of life.

As an introduction to the subject, show **film 1** “Indigenous peoples and their knowledge of nature,” which you will find online here: [dw.com/p/3vByc](http://dw.com/p/3vByc). Then discuss any unfamiliar terms and answer any questions.

» **Film 1**

### Make a poster

Divide the participants into groups of three to four people. Each group should design a poster. For this, copy **worksheet 1**, which includes questions about the film. Participants can make notes about the content of the film, which they can use for their poster.

» **Worksheet 1**

The following questions should be answered:

1. *How would you describe Indigenous peoples?*
2. *What are the problems facing Indigenous peoples?*
3. *Why is it important to protect Indigenous traditions?*

Participants can also conduct their own research. Afterward, discuss the posters in the big group.

### Suggested answers

#### For question 1

- Cultures that existed before (European) invaders took control of the regions
- Traditional ways of life and languages
- Consider themselves a group
- Globally there are more than 5,000 Indigenous groups, such as the Aborigines in Australia, the Gayo in Indonesia and the Sami in Norway
- They own and manage 25% of Earth’s land, especially tropical rainforests

#### For question 2

- Displacement, eradication
- Poverty
- Discrimination
- Shrinking protected areas
- Disputes over land/habitat

#### For question 3

- Nature is generally better protected where Indigenous peoples live
- 80% of global biodiversity is found in their regions
- Knowledge and practices help in environmental protection, and are valued by the United Nations
- Knowledge is interesting for science (e.g. about the weather)
- Knowledge about food and medicinal plants is used by the pharmaceutical industry to produce medicine



# Worksheet 1

## Module I

### Poster: Indigenous peoples

There are Indigenous peoples almost everywhere in the world, and their customs are often centuries or even millennia old. This traditional knowledge is also of value today – especially when it comes to protecting the environment and the climate.

Watch the **film** "Indigenous peoples and their knowledge of nature": [dw.com/p/3vByc](http://dw.com/p/3vByc)

Make a **poster** on which you answer the questions below. Make **notes** using bullet points before you start getting creative. For the poster, you can draw something yourself, use pictures out of magazines or your own photographs.

1. How would you describe Indigenous peoples?

.....  
.....  
.....

2. What are the problems facing Indigenous peoples?

.....  
.....  
.....  
.....  
.....

3. Why is it important to protect Indigenous traditions?

.....  
.....  
.....  
.....  
.....

## Module I

## Handout 2



# Russia: Reindeer are suffering as a result of climate change

**Duration: 25 min**

The traditions of Indigenous peoples are facing multiple threats, such as climate change. The Nenets in modern-day Russia are an example of just that. The nomads live with their reindeer in Siberia.

Make copies of **worksheet 2** and hand them out to participants. They should begin by reading the text with gaps. Answer any questions about the task.

» **Worksheet 2**

Then show participants **film 2** "Reindeer and their nomadic herders face climate change," which you will find online here: [dw.com/p/3gOPd](http://dw.com/p/3gOPd)

» **Film 2**

### Fill in the gaps in the text

Using the film for reference, ask participants to fill in the gaps in the text. They can already fill them in during the first viewing of the film, but be sure to give them a few minutes afterward to finish filling in the blanks. It is advisable to allow younger participants to watch the film a second time, so they can add any words they missed. Then discuss the answers in the big group.

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### Answers for worksheet 2

- |                   |                    |                   |
|-------------------|--------------------|-------------------|
| 1. Nenets         | 7. nights          | 13. moving        |
| 2. reindeer herds | 8. shore           | 14. reindeer      |
| 3. Arctic         | 9. later           | 15. forests       |
| 4. twice          | 10. frozen         | 16. wild          |
| 5. south          | 11. days           | 17. grazing areas |
| 6. thinner        | 12. available food |                   |



## Worksheet 2

## Module I

### Text with gaps: Nomads and climate change

The traditional way of life of many Indigenous peoples is under threat. For example, from climate change. Get to know a nomadic group living in Russia.

Watch the **film** "Reindeer and their nomadic herders face climate change": [dw.com/p/3gOPd](http://dw.com/p/3gOPd)

Fill in the **gaps**.

The ..... (1) are nomads, who breed reindeer in Siberia. For the nomads, the health of the ..... (2) is vital, as they represent their livelihood. But maintaining their traditional way of life is becoming increasingly difficult for the Indigenous group. The main reason is climate change. The ..... (3) is heating more than ..... (4) as fast as the rest of the planet. That makes it more difficult for the Nenets to follow their traditional migratory routes.

Every fall, the Nenets and their herds travel ..... (5), where they spend the winter in the forests. On the way there, the Nenets have to cross frozen rivers, such as the Ob, on the Yamal peninsula. It's dangerous because the high temperatures are making the river ice ..... (6). As a result, the Nenets only dare travel across the frozen water at ..... (7), when temperatures are at their coldest and there is a lower risk of breaking through the ice. The aim of the Nenets is to reach the other ..... (8) before morning.

The cold is coming ever ..... (9) in the year and the Nenets often have to wait until the river has ..... (10) before they can start their journey. The problem is that reindeer that can't keep moving, die within a matter of a few ..... (11). Because ..... (12) in the barren tundra landscape doesn't go very far, it's very important that the Nenets and their herds always keep on ..... (13).

There is another problem in the fact that the migratory routes of Siberia's wild ..... (14) are changing. They are moving to the cool northern summer grazing regions earlier in the year. In the winter, on the other hand, they go deeper into the ..... (15), in order to find enough food. The migratory routes of the ..... (16) reindeer increasingly cross with those of the nomads. But where there are high numbers of wild reindeer, the nomads can't raise their domesticated animals. One reason for this is that the domesticated species often join the wild herds. The two herds also compete for the best ..... (17).

available food forests Arctic Nenets frozen  
reindeer herds wild twice south nights later  
grazing areas thinner days moving reindeer shore

## Module I

## Handout 3



# Ecuador: Legal success of Indigenous peoples

**Duration: 30 min**

Indigenous peoples around the world are fighting for their right to stay on the land where they live. The Waorani in Ecuador even went to court to fight against their land being approved for oil extraction. And they won.

Participants are introduced to the Waorani leader and her success story. They should start by reading **article 1** "Nemonte Nenquimo: Indigenous and victorious." You will find a copy here.

» **Article 1**

### Work with the text

Copy **worksheet 3** for all participants and discuss anything that is unclear. Make a note of the introduction and background information in article 1.

» **Worksheet 3**

As the article is complex, participants should begin by using different colors to mark certain parts of the text. They should use red for the sections about **oil production**, blue for the **court ruling** and green for the parts that describe the Waorani **culture** and how they live in harmony with **nature**.

Participants should then answer questions about the text.

### Discussion and self-reflection around sustainability

Nemonte Nenquimo defines sustainability with the following statement:

*"Our Indigenous view is that we respect Mother Nature. She gives us everything we need: Water, food, fish, medicinal plants, space and air. As Indigenous people, it is our conviction that we must preserve nature for future generations."*

Ask participants to find and mark the quote in the article. In the big group, discuss the following questions: How do you live your life in tune with this definition of sustainability? What do you do that is not in tune with this definition of sustainability? What ideas do you have for a more environmentally friendly daily life?

### Answers for worksheet 3

#### For question 1

The Waorani are comprised of some 5,000 people. They live on an area of 600,000 hectares in the Amazon jungle in Ecuador.

#### For question 2

Hunting, fishing and agriculture.

#### For question 3

The Ecuadorian government planned to leave the area undisturbed by oil production in exchange for compensation from the international community. This plan failed.

#### For question 4

180,000 hectares.

#### For question 5

It was the first time in the history of Ecuador that a court ruled in favor of an Indigenous group.



# An Indigenous group fights against oil extraction on its land

Indigenous lands are often points of conflict, as this example in Ecuador’s rainforest proves. Home to vast oil reserves, extraction is already underway, and more is planned.

But the region is also home to the world renowned Yasuni National Park, which is not only rich in biodiversity, but is also where the Waorani people live. Their land was earmarked for drilling, but representatives of the group declared an agreement allegedly reached with the government in 2012 as fraudulent, and filed a lawsuit against oil extraction on their territory. And they won. In a ruling that generated wide international interest, the court ordered that Indigenous groups have an “inalienable, unseizable and indivisible” right to remain in possession of their ancestral lands. Waorani leader Nemonte Nenquimo played an instrumental part in the lawsuit.

Read the **article** “Nemonte Nenquimo: Indigenous and victorious” and mark the areas in the text that relate to:

- oil extraction and its consequences (*in red*)
- the court ruling (*in blue*)
- the culture of the Waorani and how they live in harmony with nature (*in green*)

Then answer the following **questions**:

1. How many Waorani are there, where do they live and how large is the area they live on?  
.....
2. What do the Waorani live from in undeveloped areas?  
.....  
.....
3. Why did Rafael Correa, who was president of Ecuador in 2013, open the nature reserve in the Yasuni National Park to the oil industry?  
.....  
.....  
.....  
.....
4. How much of the Waorani’s native land did the government of Ecuador approve for oil production?  
.....
5. What was special about the Pastaza 2019 court ruling?  
.....  
.....



## Module I

## Article 1



## Nemonte Nenquimo: Indigenous and victorious

**Ecuadorian Waorani leader Nemonte Nenquimo successfully fought against oil extraction in the Amazon, and made it onto Time magazine's list of the 100 Most Influential People of 2020.**



*Nemonte Nenquimo, Waorani leader*

"This victory is a first! Our people beat the government. Let's use this win for another three million hectares." With this 2019 tweet, the Waorani celebrated a ruling by the provincial court in Pastaza, Ecuador, not to allow oil drilling on their native land in the Amazon rainforest.

The ruling marked the end of a long legal battle between the Indigenous people and the Ecuadorian government, which had opened up 180,000 hectares of land for oil extraction. The Waorani's historic victory was down to their charismatic leader, Nemonte Nenquimo.

### Indigenous identity

The lawsuit was filed by an alliance of Indigenous peoples called Alianza Ceibo, which Nemonte Nenquimo co-founded in 2015.

The Waorani spokeswoman grew up in the Nemonpare community on the Curaray River in eastern Ecuador, where her family still lives today. Her parents sent her to a missionary school outside the village, but when she felt pressured by staff to abandon her native language and Indigenous identity, Nemonte dropped out and returned home.

In 2018, she was elected as the first female president of Conconawep, the Waorani organization in Pastaza. In 2020, she featured in Time magazine's list of the 100 Most Influential People alongside US Vice President Kamala Harris, German Chancellor Angela Merkel and European Commission President Ursula von der Leyen.

Nenquimo said the recognition is "not only for the Waorani in the Amazon, but for all Indigenous peoples around the world who are defending their land and their lives. I feel deeply emboldened, it gives me strength and hope."

### Advance of the oil companies

The Waorani settlement area is one of the last nearly untouched regions in Ecuador's Amazon rainforest. Around 5,000 members of the group live in an area rich in rivers that covers about 600,000 hectares. The eastern half of their territory is in the Yasuni National Park.

Originally, the Ecuadorian government offered to leave the area's oil reserves undisturbed if the international community agreed to pay compensation. But when the plan failed, then President Rafael Correa opened the conservation area up to the oil industry – with devastating results for the environment.

In the undeveloped Waorani settlement areas, the forest dwellers live mainly from hunting, fishing and agriculture.

Over time, however, tourism and the oil industry have become an important source of income, with many Waorani working as guards, porters, skippers, cooking assistants or interpreters. But oil extraction is increasingly regarded as a threat to the existence of the Waorani.

"In 2019, in the name of the Waorani, I filed a lawsuit against the oil excavation plans of the Ecuadorian government. It was specifically about the area that has been identified as Block 22, in which the Waorani communities of Pastaza live. The government wanted to sell this area to oil companies, but we Waorani were not consulted. Our rights to life and nature were not respected," Nemonte Nenquimo said.

## i

## Article 1

## Module I



*The Waorani took their protest against the oil industry out of the Amazon and into cities*

### Preserving nature for future generations

In 2012, government representatives flew to Pastaza and promised that the oil companies would bring wealth to the region. The meeting attendance list signed by the Waorani was later used by the government as supposed proof of their support for the project.

Block 22 covers some 16% of the Waorani settlement area. In 2019, the court in Pastaza ruled that the Waorani has been defrauded by the government and oil companies. The verdict, which was later upheld by the Constitutional Court, was the first in the history of Ecuador to favor an Indigenous group.

“People in the cities often think natives own the forest without using it. But that is capitalistic thinking,” the Waorani leader told DW. “Our Indigenous view is that we respect Mother Nature. She gives us everything we need – water, food, fish, medicinal plants, space and air. As Indigenous people, it is our conviction that we must preserve nature for future generations.”

### An uncertain future

Nemonte Nenquimo says protecting the forest is also important for the climate.

“White people consider themselves developed and talk a lot about technology, but they don’t know what the world will look like in the future. They are not leaving an inhabitable world for their children, and that is what we are fighting against. I am very happy that Time magazine recognizes the value of our fight.”

Women, in particular, are leading the charge, Nenquimo said.

“Women all over the world, and not only Indigenous women, have to take the lead in building the future. So our children can be healthy, and live well without illness and environmental pollution.”

Being highlighted in Time magazine has inspired Nenquimo to continue fighting for the future of the Waorani, because she knows the 2019 verdict does not offer absolute security.

“People who come to dirty our forests, to drill for oil, to fell or burn trees or to pollute our waters, are not welcome. But people who come from different countries to support us and who want to preserve the forest are welcome. Our house is open.”

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02.10.2020

Authors: Mirjam Gehrke, Nádia Pontes

## Module II – Modern use for old knowledge

### Handout 4



## New uses for old methods

**Duration: 60 min**

Artificial islands built using centuries-old techniques in Mexico and traditional cocoa farming in Panama are examples of Indigenous ways that are both environmentally friendly and sustainable. Still in use today – even in areas for which they were not originally intended – they are helping to counteract current problems. In module II, participants will be looking at two sustainable Indigenous methods (**subject 1 and 2**).

Divide the subjects up so half the group works on subject 1 and half on subject 2. Copy **worksheet 4** and give it to all participants. They should then watch the film relevant to their subject and answer the questions on worksheet 4. If possible, encourage participants to do further online research on the Indigenous group presented in their film.

» **Worksheet 4**

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#### **Subject 1 Chinampas in Mexico**

**Film 3** shows how an ancient Aztec method is used to renature a destroyed mangrove forest for the benefit of local fishing families. You will find the film “Mexicans turn to ancient Aztec floating gardens to revive mangrove forests” online here: [dw.com/p/3JLLk](http://dw.com/p/3JLLk)

» **Film 3**

#### **Subject 2 Traditional cocoa farming in Panama**

**Film 4** is about Indigenous female cocoa farmers who use traditional farming methods to produce cocoa beans for high-quality chocolate. You will find the film “Panama: Fairer chocolate from the forest” online here: [dw.com/p/3eE9D](http://dw.com/p/3eE9D)

» **Film 4**

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Ask participants to present the methods to each other, either by working in pairs or in the big group. This will allow all participants to get to know both methods. You will find **suggested answers** on the next page.



## Suggested answers for worksheet 4

### Subject 1 Chinampas in Mexico

1. *The method presented:* Chinampas (artificial islands)
2. *Indigenous people that originally used the method:* Aztecs
3. *Place of origin:* Central Mexico
4. *How the method works:* Chinampas are made using heaps of mud and reeds from canals or rivers.
5. *The method was once used for:* Farming
6. *Today it is used for:* Agriculture, reforesting mangroves in the Gulf of Mexico
7. *The method is sustainable because...:* The mangroves planted on the chinampas are important for the ecosystem and especially for aquatic species. The delicate young plants have a better hold on the raised chinampas. They are not so easily washed away by the tide and have a better chance of growing.
8. *Further advantages of the method:* Mangroves are important habitat for crabs and fish. Reforestation ensures fishermen and women a livelihood. Besides that, chinampas are a connection to the ancient Aztec culture. In Mexico City, the chinampas are also a green oasis within the megacity.

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### Subject 2 Traditional cocoa farming in Panama

1. *The method presented:* Cocoa farming in the rainforest
2. *Indigenous people that originally used the method:* Ngobe
3. *Place of origin:* Panama
4. *How the method works:* The cocoa grows in a natural environment in the middle of the rainforest. It grows in harmony with trees that Indigenous people use for wood, and among crops and medicinal plants. The cocoa farmers go into the forest to harvest fruit to sell.
5. *The method was once used for:* Growing cocoa
6. *Today it is used for:* Environmentally friendly farming of organic quality cocoa as opposed to industrial cocoa farming (plantations and monocultures).
7. *The method is sustainable because...:* It does not require logging, pesticides or plantation cultivation. The cocoa is grown in an agroforestry system instead of a monoculture. In this system, soil is protected by leaves, and different plants can exist in harmony with one another. Because in this ecosystem the cocoa trees have just the right amount of shade, they produce a good yield. Rare medicinal and ritual plants used by the Ngobe also grow between the cocoa trees.
8. *Further advantages of the method:* The quality of the cocoa is particularly high. It is also healthier because no chemicals are used. The sustainably and fairly grown cocoa is used in the production of high-quality dark chocolate, highlighting its healthy properties. In addition, traditional cocoa farming offers women in the region independence and their own income.

## Module II

## Worksheet 4



# Introduction to Indigenous methods for environmental protection

Some Indigenous traditions and methods are still used today, sometimes even in new fields. They often contribute to greater sustainability.

Watch one of these **films**:

- "Mexicans turn to ancient Aztec floating gardens to revive mangrove forests": [dw.com/p/3JLLk](http://dw.com/p/3JLLk)
- "Panama: Fairer chocolate from the forest": [dw.com/p/3eE9D](http://dw.com/p/3eE9D)

Complete the **information** about the methods presented in the film.

1. The method presented:

.....

2. Indigenous people that originally used the method:

.....

3. Place of origin:

.....

4. How the method works:

.....

.....

.....

5. The method was once used for:

.....

6. Today it is used for:

.....

7. The method is sustainable because:

.....

.....

.....

8. Further advantages of the method:

.....

.....

.....



## Handout 5

## Module II

# Environmentally friendly traditions and methods from your own region

 **Duration: 60 min + individual interview time**

Once the participants have been introduced to two environmentally friendly Indigenous methods, they will turn their attention to where they live, and look at local traditions and ways of life that are in harmony with nature. For this, they will conduct an **interview** with someone from their grandparents' generation, such as an older person from the neighborhood or a grandparent.

You could begin by talking to participants about how **nutrition, farming, raising animals, hunting, fishing or medicine** have changed over the past decades. It might be fruit and vegetable species that were once much more popular than they are today, or older approaches to home remedies. Curd compresses for treating fever, plant brews for skin disease or the use of fly maggots for cleaning wounds are all methods our ancestors knew, and some are still in use today. Write the traditions and ways of life on the board or in a shared document.

Copy **worksheets 5.1 and 5.2** for everyone and hand them out. Talk to the group about the suggested questions and clarify anything necessary.

» **Worksheets 5.1 and 5.2**

### **Conduct an interview (worksheet 5.1)**

Encourage participants to ask additional questions in their interview to find out more details. Discuss in advance how to conduct a good interview (open questions, attentive listening, animate those interviewed to say more, etc.). You can also practice interviews in the group. Two participants can role-play an interview, after which the person who asked the questions receives feedback and suggestions for improvement.

### **Write instructions (worksheet 5.2)**

Under the motto: "Yesterday's ideas for today's environmental protection," the participants should focus on: A recipe, a medicinal cure or home remedy or a concrete method they learned about in their interview. This "idea" should be written out in detail and the results presented in the big group. Discuss the environmental friendliness of the methods you have learned about.

Afterward, participants create a collection of all their results from worksheet 5.2. Participants can try out their own methods and take photos of them. The collected instructions, methods and recipes can be kept together in a folder or bound into a book.

## Module II

## Worksheet 5.1



# What did grandma and grandpa know about being eco-friendly?

All over the world, some **traditions** and **methods** date back far into the past. Even today, these methods can be good for environmental and climate protection.

Conduct an interview on this subject with someone from your grandparents' generation. Ask the person you are interviewing to think about their own experiences, but also about what their own parents and grandparents told them.

The **questions** below will help you conduct your interview. You can also come up with your own questions.

### Tip:

During the conversation, take notes in bullet point form.

It is unlikely that your interview partner will be able to answer all questions in detail. Think about a method that respects nature, a recipe or something else from times gone by that particularly interests you, and ask your interviewee to explain more about it.

On **worksheet 5.2** "Yesterday's ideas for today's environmental protection," you can write down the method or the recipe of your choice.

1. Which types of fruit and vegetables did your family use to eat? Are there any that are no longer well known today? Which ones?
2. Did your family grow their own vegetables, fruit or anything else? Did they use environmentally friendly methods to keep pests away?
3. Did you collect wild herbs, fruit or mushrooms? If so, when and where?
4. Did you keep animals? If so, what kind? How important were animals for your family?
5. Did you go hunting or did you fish? If so, what role did that play in your family's life? How did you set about it? What did you have to pay attention to?
6. What home remedies did you use when someone was sick? Did you use specific plants for tea or for making ointments? Did you have home remedies that were not made from plants? If so, what were they?
7. What tricks did you have for the home, farm and garden? For example, what did you use for cleaning, how did you keep things in good condition, what did you do with kitchen waste?







## Brazil: Indigenous people use an app to protect the forest

**Duration: 45 min**

Many Indigenous people use modern means to preserve their traditions. Through role-playing, participants become familiar with the app SOMAI, which helps Indigenous people in Brazil's rainforests to clarify borders and prepare for extreme weather situations.

Start by reading **article 2** "Brazil's Indigenous groups go mobile to protect the forest," a copy of which you will find in this pack, or online here: [dw.com/p/32nER](http://dw.com/p/32nER). Make copies of **worksheet 6** for all participants and hand them out. In preparation for the role-playing, participants collect arguments that explain why more Indigenous peoples in Brazil should use the SOMAI app. Use the article for this, but also encourage participants to write down their own arguments.

» **Article 2**

» **Worksheet 6**

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### Role-play

Three participants play the roles of the protagonists from the article, and adopt the parts of ambassadors for the app: **Jabson Nagelo da Silva**, spokesperson of the Makuxi; **Fernanda Bortolotto**, IPAM-coordinator; and **Sineia do Vale**, environmental manager of the NGO Indigenous Council of Roraima.

The rest of the group will play the parts of Indigenous people who do not yet know the app. The app ambassadors present the app to the group, with arguments in favor of using it. The group playing the parts of an Indigenous group asks questions about the app and its advantages and disadvantages. Afterward, they weigh up which arguments they found most convincing and why.

If you would like to cast more than three participants in the roles of app ambassadors, you can give each of the protagonists from the article an assistant. This means two participants can argue their points together, support and complement each other.

As the educator, your role is to act as moderator in the role-play. Make sure each party has the chance to speak and that participants stick to general rules, such as listening, not interrupting, not getting personal and so on.

The following **suggested solutions** relate to the arguments named in the article. Participants can also come up with more arguments of their own.



## Suggested solutions for worksheet 6

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**Arguments by Jabson Nagelo da Silva, Makuxi spokesperson:**

- The app clarifies the borders of Indigenous territories. People and companies that encroach on Indigenous land and deplete natural resources can be reported. Indigenous groups can use the app to prove the land belongs to their people.
- They can file reports using the app.
- Data in the app enables Indigenous people to respond better to the impacts of climate change (such as avoiding particularly dry areas during droughts in order to minimize the likelihood of fire or to better fight existing fires).
- Indigenous peoples can use recorded information to better prepare for extreme weather situations.

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**Arguments by Fernanda Bortolotto, IPAM coordinator:**

- The app can be used to collect data on rainfall and deforestation.
- The app is free.
- Traditional methods can be preserved by using the app.
- Indigenous peoples can protect themselves against encroachment.
- Indigenous peoples already use countless apps and are well connected, which means there is a general interest in new technologies.
- App data should enable all Indigenous peoples of Brazil to fight for their own rights.

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**Arguments by Sineia do Vale, Indigenous Council of Roraima environmental manager:**

- Indigenous people can enter information into the app themselves and receive unfiltered information from and about the Indigenous groups for scientific use.
- Indigenous people can create their own climate maps that allow them to become more independent.



# Brazil: Indigenous people use an app to protect their habitat

Indigenous groups in Brazil repeatedly face problems that threaten their livelihoods. Many are now using the SOMAI app to protect their lands. The app makes data about rainfall and deforestation available, but also shows where the borders of the Indigenous community are.

Read the **article** "Brazil: Indigenous people use an app to protect the forest": [dw.com/p/32nER](http://dw.com/p/32nER)

Take on the roles of the protagonists from the article and play the parts of the ambassadors of the SOMAI app in a **role-play** exercise.

- Jabson Nagelo da Silva, Makuxi spokesperson
- Fernanda Bortolotto, IPAM coordinator
- Sineia do Vale, Indigenous Council of Roraima environmental manager

Imagine the three of you arrive in the village of an Indigenous group that has never heard about the SOMAI app. It is your goal to present the app and convince the group to use it.

In order to prepare for the role-play, collect the **arguments** for the three people who are going to convince the Indigenous group about the SOMAI app. You can take the arguments from the text and add your own.

**Arguments by Jabson Nagelo da Silva, Makuxi spokesperson:**

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**Arguments by Fernanda Bortolotto, IPAM coordinator:**

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**Arguments by Sineia do Vale, Indigenous Council of Roraima environmental manager:**

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**Additional arguments:**

.....

.....



## Brazil's Indigenous groups go mobile to protect the forest

**Brazil's Indigenous groups are struggling to protect their land from cattle ranchers and loggers. Now, some are turning to their phones as a weapon in the fight against land-grabbing and environmental destruction.**



When a small cluster of houses appeared on the outskirts of the remote Serra da Moça in northernmost Brazil, Jabson Nagelo da Silva was alarmed.

"They had just put themselves there," said Nagelo. "They were taking advantage of our lands."

That land belongs to the Makuxi. Nagelo, the son of one of the tribe's leaders who passed away in recent years, sees the encroachment as an invasion – and a threat to them and their way of life.

Although the intentions of the new arrivals remain unclear, Nagelo's concern was based on past experience.

Ever since the Makuxi first came into contact with outsiders more than 200 years ago, they've fought to maintain their languages and customs – as well as the land they say their ancestors have lived on for centuries.

Waves of mining prospectors, loggers and cattle ranchers have been moving in and around Indigenous lands for years, including Serra da Moça. In some cases, the Makuxi have faced threats and physical violence when they've pushed back against encroachment.

But before Nagelo could alert the authorities to the suspected intrusion, he had to prove the settlement was indeed on Makuxi territory – even though the

tribe didn't have a copy of official maps showing the borders first recognized in 1984.

Proof came in an unexpected form: a smart phone app.

### Digital tool for land rights

Developed by Brazil-based nongovernmental organization, Institute for Environmental Amazon Research (IPAM), the app, called SOMAI, tracks rainfall and deforestation, and provides maps that demarcate Indigenous territory.

Nagelo had attended a workshop on how to use the digital tool along with 100 other Indigenous Brazilians earlier in 2018. When he accessed the map of Makuxi territories via the app, his suspicions about the new houses were confirmed. Smart phone in hand, he could make a complaint to the authorities.

"We suspected an invasion, but no one had the tools to map our territory ourselves," he said. "When I saw the map of the demarcated Indigenous land, I was happy that we had this tool. We can do our own monitoring of our territory."

IPAM say its free app has helped verify several cases similar to the Makuxi's. When the Kayapó people – known for maintaining colorful traditional festivals – noticed deforestation on the outskirts of their land in June 2017, they reported it via the app. They were able to preserve that land, and farming traditions.

While many such communities live in remote areas, IPAM's Indigenous group coordinator Fernanda Bortolotto says they more connected now. She estimates that over 100 people are now using the app – although she's unsure of the total number, as cell phones are often shared within the communities.

"In my job, it's a lot easier to communicate with them by Facebook or Whatsapp than by email," Bortolotto told DW. "They've had mobile phones for a long time – just not as tools to monitor their territories before."

### Coping with climate change

Indigenous representatives say they're also using the apps to deal with threats due to climate change.

Record droughts are increasing in the Amazon, heightening chances of wildfires and tools like SOMAI can help communities avoid these hotspots and combat fires.

## Module III

## Article 2



Temperature and rainfall information are also helping communities plan for drought and other extreme weather events. Those using the app are able to add in their own climate-tracking data, too.

“We saw an opportunity with the app to produce information from within Indigenous communities,” said Sineia do Vale, who is a member of the Uapixana Indigenous group and environmental manager at the Indigenous Council of Roraima, a non-governmental organization in Roraima state, where the Makuxi live.

“Communities can make their own climatic maps (and) become more resilient.”

But the survival of Brazil’s Indigenous is not just an issue of land rights or local environmental benefits, say Indigenous rights groups.

Recent research has shown that Amazon deforestation is at a “tipping point,” which would mean that the rainforest could become a savannah. In that scenario, the world could lose one of the planet’s most important CO2 stores.

Studies show deforestation is much lower in protected and Indigenous territories than outside them, meaning forest peoples are playing an “unparalleled role” in protecting the 54.5 million metric kilotons of carbon stored in tropical forests.

### Ongoing threats

Still, proposed laws in Brazil could make it more difficult for Indigenous communities to lay claim to their land. Demarcated Indigenous territories account for 13% of the country’s terrain – 98.5% of which is in the Amazon region.

Land demarcation is already a lengthy process subject to several layers of investigation by government bodies, including the Justice Ministry. But a proposed “time stamp” would burden Indigenous groups with proving they were present on their lands in 1988, when the Brazilian Constitution came into effect, in order to remain.

After visiting Indigenous communities in Brazil in 2016, UN rapporteur Victoria Tauli-Corpuz described what she saw as grave and worsening conditions.



*IPAM is providing workshops to indigenous communities to teach them how to use the SOMAI app*

Funai, the Brazilian government body responsible for policies relating to Indigenous peoples, has had its budget slashed nearly in half in recent years – undermining monitoring, protection and demarcation efforts.

Meanwhile, Indigenous groups say they are again facing sometimes violent threats from loggers, miners and agribusiness.

Indian communities sharing the Makuxi’s land told investigative journalism outlet Amazonia Real that members of their group had been threatened “nine times” in recent years by individuals associated with timber company FIT Manejo Florestal, which is logging along the borders of the land.

DW reached out to FIT for comment but were unable to reach them at the time of publication.

IPAM believes its app, which won a Google Social Impact Challenge award in 2016, could play an important role as Indigenous communities come under increasing pressure.


“Our objective is that this data will be principally made available to these Indigenous peoples,” said Bortolotto, “so they can use it as a tool in their fight (for rights).”

11.08.2018

Author Ciara Long (São Paulo)  
[dw.com/p/32nER](http://dw.com/p/32nER)



# India: Modern business model designed to help camel nomads

 **Duration: 25 min + 60 min**

India's camel nomads, the Raika, are on the cusp of giving up their traditional way of life. Societal modernization means nobody wants to buy camels anymore, so they are losing their value. But because camels are an essential part of the local ecosystem, a dairy that makes camel milk products such as drinks and soap, could be the answer. The income from sales represents an incentive for the nomads not to give up their strenuous form of raising animals.

### Fill out table

Start by copying **worksheet 7.1** for everyone and handing it out. It contains a table in which participants write down why the Raika's camels are important for the environment, which problems the Indigenous group is facing, what solutions are available and the difficulties they bring for those involved. Discuss the table and any questions participants have.

» **Worksheet 7.1**

Watch **film 5** "India's camel nomads compete for a place in the modern world," which you will find online here: [dw.com/p/38fcs](http://dw.com/p/38fcs)

» **Film 5**

Ask participants to fill in the table.

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### Write an application

Copy and hand out **worksheet 7.2**. Participants should write an application to potential sponsors who might be willing to fund the "Camel Charisma" project. Use the information you have collected in the table for this.

» **Worksheet 7.2**

Discuss in advance how to structure a good text: Find an engaging and clear introduction, use arguments and examples in the main body of the text and add a clearly formulated request at the end.

Ask participants to read the text in the big group and discuss the content and structure together.



## Suggested solutions for worksheet 7.1

### Why are camels important for the ecosystem?

- Camel breeding helps to protect the environment.
- The seeds of many trees can only germinate if they have passed through the stomach of a ruminant (camel).
- Camels are the only animals that eat Indian globe thistles. Without camels, the thistles would be even more widespread.
- Camels only pluck a few leaves and twigs and then move on. This promotes plant growth.

### What problems do the camel nomads face?

- Motorized vehicles have replaced camels as carriers, thereby reducing their value.
- Camel numbers in Rajasthan have shrunk enormously in the past three decades.
- There is no money to be made with camels, which means young people have to go to the city to work.
- Camels need large grazing areas, but space has become tight.
- The loss of camels also threatens the Raika culture and knowledge about raising animals.

### What are the answers to the problems facing the camel nomads?

- The milk is shared with the young and is a valuable source of nutrition.
- The Raika sell milk to the dairy.
- Young people can work in the dairy.
- Camel milk can be sold as a high-value natural product.
- Soap is made from leftover milk.
- New products are developed, such as wool or paper made from camel dung.

### What problems do these solutions bring?

- The dairy doesn't sell enough milk.
- The dairy is so far only working to a third of its capacity and only receives milk from six families. But more families are planning to deliver their milk too.
- There is little access to a growing customer base.



## Worksheet 7.1

## Module III

### Camel Charisma: An income for Indian camel nomads

The Raika in Rajasthan are struggling to live from their tradition of raising camels. A dairy that produces camel milk products is trying to help them preserve their way of life. Find out more about it.

Watch the **film** "India's camel nomads compete for a place in the modern world": [dw.com/p/38fcs](http://dw.com/p/38fcs)

Fill out the **table**.

**Why are camels important for the ecosystem?**

**What problems do the camel nomads face?**

**What are the answers to the problems facing the camel nomads?**

**What problems do these solutions bring?**







## Handout 8

## Module III

# South Africa: Eating insects

 **Duration: 60 min**

From cricket powder for protein shakes to insect burgers and fried locusts, edible insects are slowly becoming a trend. In many countries in Africa and Asia, eating critters has long been part of everyday life. They are nutritious and it is more environmentally friendly to manufacture insect products than meat.

Read **article 3** "Biodiversity: Protecting South Africa's edible insects," a copy of which you will find in this pack or online here: [dw.com/p/3mku1](http://dw.com/p/3mku1). Then talk to the participants about their views on edible insects. Would they eat them themselves? What are the reasons for their decision?

» **Article 3**

### Design an advertising campaign

Working in pairs or in groups, participants then design an advertising campaign for an insect product of their choice. **Worksheet 8** will help participants to better plan their advertising campaign.

» **Worksheet 8**

Before participants start, discuss with them which media best lends itself to an advertising campaign: Social media, TV advertisement, billboards or radio commercial. Give the participants enough time for conception and design. Encourage them to create their own picture, video and sound material, by using a smart phone for example. Alternatively, they can present their ads live or make a poster. The campaign could be done as homework.

### Award ceremony: The best campaign wins

You can organize an award ceremony for the presentation of the advertising campaigns, in which each team presents its campaign. At the end, a jury – comprised of you and possibly two other people who are not among the participants – awards a prize for the best campaign.

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### Suggested solutions for worksheet 8

Arguments in favor of using insects as a source of food:

- Earthy and nutty flavor
- Versatile ingredient
- Easy to catch and widely available
- They don't need many resources compared to the energy they deliver
- Generate fewer emissions than animals earmarked for slaughter



# My advertising campaign: Insects on the table!

From termites to crickets, locusts to meal worms, for many people in the world, eating critters has long been part of everyday life. If insects were an accepted food source everywhere, it could be good for the environment and the climate.

Read the **article** "Biodiversity: Protecting South Africa's edible insects": [dw.com/p/3mku1](http://dw.com/p/3mku1)

Using the article as a basis, design an **advertising campaign** for a product made from edible insects. You can take **photos** or **shoot video**, design a **poster** or make a **radio commercial**.

The following **questions** will help to guide you:

- 
1. Which product do we want to advertise (insect protein bars, cricket burgers, snacks with meal worms, etc.)?  
.....
  2. Which medium do we want to use for our campaign (poster, social media, TV commercial, etc.)?  
.....
  3. Which arguments speak for our product? (Why is this product good for me? How does it benefit me if I buy it? Why is it good for the environment?)  
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  4. How should we design our advertising campaign?  
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## Article 3

## Module III

## Biodiversity: Protecting South Africa's edible insects

**Eating insects is common among many communities around the world. Could DNA barcoding help protect them and culinary traditions for future generations?**



*Edible insects, consumed by many communities in rural South Africa, are now attracting the interest of scientists*

Standing underneath a big mango tree in Mopye, a village in north eastern South Africa, Martin Boima is snacking on crunchy dried termites. He's been eating the insects, known locally as "makeke," since he was a little boy, coaxing them out of their mounds with long strips of grass and drying or frying them.

Today he is handing out homemade termite protein bars, available in cheese or chocolate flavor, to an excited village crowd. It is part of a series of taste tests he is running through his new insect-based foods business.

He is joined by Bronwyn Egan, a zoologist from the South African University of Limpopo, who shares his fascination for edible insects, on a culinary and academic level. For the last two years, she has worked closely with Boima and other locals, collecting both their knowledge of nutritious critters, as well as actual specimens.

### Enriching science with traditional knowledge

She is looking to build up the scientific understanding of these species as a first step to conserving them. Some estimates say up to 40% of insect species could become extinct globally over the coming decades, due to habitat loss as land is converted to intensive agriculture, as well as to urbanization and the use of pesticides.

Egan fears poor insect taxonomy in South Africa makes it especially difficult to accurately know the scale of biodiversity being lost there. "We don't even have names for all the things that are being lost on a daily basis," she said.

Enriching science with traditional knowledge, Egan hopes her project will aid conservation for insects that are a particularly valuable food source to communities.

Catching, cooking, and eating insects whole is a common practice in many parts of rural South Africa, including the lush mountainous Bolobedu South area in Limpopo where Boima lives. He says he "loves insects", for their earthy, nutty-flavor. "Any way that you want to cook them, they're always nice."

Boima, as well as other field workers, share the names, whereabouts and behaviors of local edible species with Egan, to support the protection and promotion of the insects and the traditional knowledge he holds dear.

Today he is showing her how he catches his evening meal in the fields beside his village. He shakes plants with a leafy branch, prompting grasshoppers, or "ditšie", to hop out into his waiting hands.

### Barcoding biodiversity

Some of his bounty goes into a plastic bag destined for Egan's laboratory, where she preserves the specimens in alcohol and records their identity information. A selection of the preserved specimens is then sent across the country to Barbara van Asch, senior lecturer in the department of genetics at Stellenbosch University.

Van Asch sequences the insects' DNA to create a genetic barcode. This information, together with other classifications such as genus and the scientific name, are then added to databases such as the International Barcode of Life – a global library of genetic information for various species that aims to protect biodiversity.

So far, the Limpopo samples have provided van Asch with nine "ethno-species" – animal groupings identified by local communities rather than Western scientific classification systems. This type of work has

## Module III

## Article 3



been done on other edible insect populations in Asian countries, but African knowledge has often been overlooked by academic science, van Asch explained. "It's like we're bringing them to life," she said. "But only on our side because from the side of the communities they (already) exist."



*Martin Boima is happy to donate his grasshoppers to help with scientific research*

### Environmental threats

From the field where he caught the grasshoppers, Boima points to a spot on the other side of a green valley which used to be rich in insect life. Now there are barely any, he explains, and the leaves have started turning brown. He suspects the landowner sprayed pesticides in preparation for converting the land for development or farming.

Egan and van Asch see their identification work as an essential first step in conservation. "If it doesn't have a name, nobody is going to stop a building being put up for a nameless thing," Egan says. They hope this foundation of scientific knowledge will inform researchers and activists who want to track and defend insect populations.

### Commercializing insects

They also see the potential it has to support the commercialization of insect-based human food and animal feed, which has gained momentum in recent years. Consumers can now buy cricket protein in the US or insect ice cream in South Africa. "They need a very small amount of resources compared to the nutritional value that they hold," said van Asch.

Insects have been highlighted as a more sustainable alternative meat protein, as they require less water and land, and produce fewer greenhouse gas emissions.

Beyond the continued barcoding work, van Asch plans to source funding to set up pilot projects that test how households in South Africa could establish small-scale farms. The results of her research with Egan will help determine which species could be suitable.

A study this year from University of Bonn, Germany, concluded that although insect-farming has potential for growth as a sector, more research is needed into species suitability, as well as the investment and policy frameworks needed to support it.

Yet Egan thinks connecting traditional knowledge from areas like Limpopo to scientific data could help identify which species could be commercialized. For instance, that soldier termites, which appear all year, would be a better choice than the seasonal flying termite.

Boima plans to start selling his termite protein bars soon and eventually hopes to employ others in the area. He is also keen to teach people about the value of this traditional knowledge. "We have to know that those insects are very important to our culture, that we can live because of them," he said. "So we have to take care of them."

22.05.2021 | Author: Elna Schutz | [dw.com/p/3mku1](https://www.dw.com/p/3mku1)



## Handout 9

## Module IV – Taking action

### Social Media

 **Duration: 60 min**

Social media is something that fascinates young people all over the world. Young Indigenous people are no exception, regardless of whether they live in traditional villages or in the biggest cities on the planet.

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Read **article 4** “Cultural war with bow, arrow and smartphone” as a group. You will find a copy of it in this packet.

» **Article 4**

#### Collect arguments

The article outlines how young Indigenous people are using social media to defend themselves against prejudice and clichés. Using Worksheet 9, participants should collect examples of how social media can help Indigenous people fight back against stereotypes. Copy **worksheet 9** for all participants. They can either do this alone or in pairs. Working with the group, write the most important points on the board or in a shared document.

» **Worksheet 9**

#### Write comments for social media

Afterward, participants can take on the role of influencers Alice or Cristian from article 4. Fictional followers of their social media accounts ask them questions and they reply with two comments. Among other things, the participants should elaborate on why social media is a suitable tool for making Indigenous culture visible.



## Suggested solutions for worksheet 9

How do Indigenous influencers support their people?

- Indigenous influencers introduce the traditions, customs and ways of life of their people. This can help to debunk cliches and prejudices.
- By using social media, Indigenous peoples become visible as part of the modern world.
- Grievances, such as discrimination from non-Indigenous people or governments can quickly be made public.
- When they are in the public domain, they can win support for their people from society and prominent figures.
- Photos of themselves wearing traditional clothing and face paint strengthen their Indigenous identity.

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### Optional

#### **Present Indigenous influencer**

If you want to show participants more about the work of Alice and other Indigenous influencers, we recommend the social media video "Meet Brazil's indigenous influencers," which is only available online. The audio in the video is in Brazilian Portuguese, but it has English subtitles: [dw.com/p/3sVVd](https://www.dw.com/p/3sVVd)

Show the social media video in the big group.

As an additional task, participants can subsequently look through social media channels for Indigenous figures making their culture visible online, and hold a short presentation about them. When searching, hashtags like #indigenous, #indigenouspeople or #indigena can be helpful. In their presentations, participants can say which group the person belongs to and what issues they are addressing on social media.



# Worksheet 9

# Module IV

## TikTok, Instagram, etc. in the rainforest

Young Indigenous people are proving that their traditions and social media do not have to be kept apart. On the contrary. Some are using social media platforms for the benefit of their people.

Read the **article** "Cultural war with bow, arrow and smartphone".

- Using the article, collect **examples** of how Indigenous influencers support their people.

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- Write **comments** for social media

Using a social media platform of your choice, take on the role of influencer Alice or Cristian.

- A follower confronts you with a quote from the article. He wants to know what you mean:

Alice: "If we don't live in total isolation, we are apparently not Indigenous. That is the colonial thinking we are up against day after day."

Cristian: "I want to produce high-quality content, and simply by doing that, I am breaking the stereotype of being a lazy Indio who doesn't care."

Write a comment that answers the follower from the point of view of Alice or Cristian.

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- Another follower wants to know why you think social media is the best way of making Indigenous culture visible for the world. Answer him too.

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## Module IV

## Article 4



## Cultural war with bow, arrow and smartphone

**Indigenous influencers are tackling prejudice and fighting for survival by using social media to show how they combine tradition with the modern world.**



*Indigenous influencer, Alice Pataxo*

“Whaaat? You have internet?” a moderator asked in exaggerated surprise when interviewing 19-year-old influencer Alice Pataxo for the YouTube children’s channel Canal IN.

Wearing a headdress and traditional face paint, Pataxo, who was being interviewed online, sat in front of a light-colored fabric wall, speaking into her mobile phone camera. She told the audience she was at home in her village in the Monte Pascoal nature reserve in Brazil’s Bahia state. The closest supermarket is some 40 kilometers away.

“We don’t have telephones here, but our satellite internet connection is stable,” she said.

During the course of the show, Pataxo talked about her people’s traditions, customs and way of life. It is part of her role as an Indigenous activist to dispel the belief that it is a contradiction for her people to live from the land and use the internet. Or that her school classes were sometimes held in the forest, and that she now studies at the Federal University of Southern Bahia.

### **The internet as a mouthpiece**

But Alice Pataxo doesn’t always explain things with the same calm and friendliness she exuded in the children’s show. On her own social media channels, she comes across as combative and irritated by the

cliches she regularly has to contend with – that her skin is much too light for her to really be Indigenous and that her traditional headdress and face paint are just a masquerade.

In one of her recent tweets, she asked “Who are Brazil’s Indigenous people?” Answering her own question, she said that though there is a large element of tradition in the Indigenous way of life, that doesn’t make it backward. The sense of identity, she added, is connected to a feeling of belonging, and from the eternal fight against colonization. Even today, she continued, Brazilian society wants to strip Indigenous groups of everything that makes them who they are – from their land to their own identity. “If we don’t live in total isolation, we are apparently not Indigenous. That is the colonial thinking we are up against day after day.”

### **Used to the fight**

Her activism is not her first battle. At the age of 15, she and her family camped at the side of a federal highway for a while after the police cleared her village. The area had been earmarked for real estate speculation. Pataxo says the fight for survival has made her strong.

“Nowadays if I have the feeling I can’t do something, I remember that I’ve already survived worse,” she said. “I do what I do so other Indigenous children don’t have to go through the same thing.”

She has over 88,000 followers on Instagram and even more on Twitter, including some Brazilian celebrities such as the singer Emicida, comedian Marcelo Adnet and the politician Marina da Silva.

### **Rituals help to endure prejudice**

Cristian Wariu Tseremey’wa has about 75,000 Instagram followers and more than 38,000 subscribers to his YouTube channel. Cristian Wariu, as he usually calls himself, belongs to the Xavante, who live in central Brazil. But he also has Guarani ancestors that come from further south.

### **Proud of his Indigenous heritage**

“If there is space for a discussion, I’ll join in, but I have no problem moving on if it is meaningless,” said Wariu, who is the son of a chief. “There are lots of tests in Xavante rituals, both physical and psychological. At some point or another, life will be hard on you and you have to learn to be able to stand it.”

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## Article 4

## Module IV

When he talks about being able to endure prejudice, he is talking about his mental health, not his outward attitude. Because like Alice Pataxo, he has taken it on himself to spread knowledge of the Xavante and other Indigenous peoples as a way of changing stereotypical thinking.

“My parents taught me to be proud of my origins,” he said. “We can use the internet to strengthen our sense of identity and boost our self-confidence.”

### Breaking stereotypes

Cristian Wariu studied organizational communication in the Brazilian capital, Brasilia. But he taught himself to do what he does now by playing around with photo and video editing programs on old computers his father brought back from his travels.

“I want to produce high-quality content, and simply by doing that, I’m breaking the stereotype of being a lazy Indio who doesn’t care.”

Although the goals of the two influencers are similar, their approaches are very different. Alice Pataxo positions herself as a youth activist, who writes politically loaded tweets and comments, and posts images that seem to show off her femininity.

Cristian Wariu, on the other hand, wears T-shirts and only rarely wears face paint or the Xavante’s traditional ear pins. Far from making pithy statements, he tries to explain the Indigenous world in a calm and low-key manner.

### Support from the elders

Both influencers are supported by their communities in the work they do online. At a large gathering, the leaders of the Xavante described Cristian Wariu as a “digital warrior.” Though because many of the older members hardly use the internet, he says they only really started to take his commitment seriously when he was a guest on a national talk show.

“The elders always wanted this visibility, but never achieved it because they were too busy defending their territory,” Wariu said. “So, it gives them a great sense of satisfaction to see an Indigenous face on television, who on top of that, also has a presence on a modern medium like the internet.”

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26.04.2021

Authors João Soares, Jan D. Walter

## Module IV

## Handout 10



# Creative writing for intact nature

 **Duration: 60 min**

Art and culture are used all over the world to transport messages. Use this as inspiration and end the series of lessons with a creative unit.

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### **Introduction to the subject**

Start with an example: **film 6** "Colombia: Young, Indigenous people fight to preserve their culture," which among other things, shows a play put on by a young Indigenous man. You will find the film online here: [dw.com/p/3ZxRy](http://dw.com/p/3ZxRy)

» **Film 6**

Watch the film with the participants and then discuss the message the play is seeking to convey in the big group. Discuss how a creative approach to an environmental issue can help push it into the public focus.

### **Get creative: Ancestral treasures**

Encourage the participants to become active: They should write a creative text on the subject of "ancestral treasures." It could be a poem, a song or a rap.

It could be about Indigenous people and their way of life or old recipes for more environmental protection. Participants can also use the environmentally friendly traditions and methods from their own region which they researched for Worksheet 5.

Print out **worksheet 10** for everyone, ask someone to read it aloud and answer any questions that arise.

» **Worksheet 10**

### **Presenting their own work**

Participants present their work to the big group. Encourage them to give one another feedback. But first make the rules for constructive feedback clear (e.g. first say something positive, then a point of critique – of the work not the person – followed by something else positive).



## Worksheet 10

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## Module IV

### Rap, song, poetry: Creative environmental protection

Many important issues are taken more seriously in the public sphere when someone has dealt with them creatively.

Watch the **film** "Colombia: Young, Indigenous people fight to preserve their culture," which you will find here: [dw.com/p/3ZxRy](http://dw.com/p/3ZxRy)

Once you have watched the film, discuss whether the play shown in it can move children to better protect plants and animals. How can songs, stories or plays help raise awareness of environmental and climate protection among young people?

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#### **Ancestral treasures**

Now write your own creative text on the subject of "ancestral treasures." You can write your own **play** as a way of tackling an issue relating to Indigenous peoples, or you could write a **rap** or compose a **song** about environmentally friendly methods and recipes known to your ancestors.

You can choose what kind of text to write. Possibilities include a **story**, a **poem** or the **lyrics** for a song. Afterward, you can present your work to the big group.



## Films

### Film 1



"Indigenous peoples and their knowledge of nature"

[dw.com/p/3vByc](https://www.dw.com/p/3vByc)

» Page 9

### Film 2



"Reindeer and their nomadic herders face climate change"

[dw.com/p/3gOPd](https://www.dw.com/p/3gOPd)

» Page 11

### Film 3



"Mexicans turn to ancient Aztec floating gardens to revive mangrove forests"

[dw.com/p/3JLLk](https://www.dw.com/p/3JLLk)

» Page 17

### Film 4



"Panama: Fairer chocolate from the forest"

[dw.com/p/3eE9D](https://www.dw.com/p/3eE9D)

» Page 17

### Film 5



"India's camel nomads compete for a place in the modern world"

[dw.com/p/38fcs](https://www.dw.com/p/38fcs)

» Page 28

### Film 6



"Colombia: Young, Indigenous people fight to preserve their culture"

[dw.com/p/3ZxRy](https://www.dw.com/p/3ZxRy)

» Page 41

## Articles

### Article 1



"Nemonte Nenquimo: Indigenous and victorious"

» Pages 15 – 16

### Article 2



"Brazil's Indigenous groups go mobile to protect the forest"

[dw.com/p/32nER](https://www.dw.com/p/32nER)

» Pages 26 – 27

### Article 3



"Biodiversity: Protecting South Africa's edible insects"

[dw.com/p/3mku1](https://www.dw.com/p/3mku1)

» Pages 34 – 35

### Article 4



"Cultural war with bow, arrow and smartphone"

» Pages 39 – 40

## Playing Films

### Instructions for playing films

You have several options for playing the films accompanying this learning pack:

#### 1. Playing films from DVD

If you have a hard copy of the learning pack, you will find all the films in two formats on the accompanying DVD. You can play the films using a DVD player (PAL format). You will also find the films as mp4 files on the DVD. These can be played on a computer.

#### 2. Downloading and playing films from the internet

If you don't have the learning pack DVD, you can download or stream all the films directly from Deutsche Welle's website. You will find the film links in the handouts, as well as in the module overview. We recommend you download the films before class to ensure your lessons run smoothly.

To download the films, follow the links in the handouts and module overview. Then click on "Download Save MP4 file." You can save the film as an mp4 file on your computer or mobile storage device (e.g. USB key). Downloading the material can take between a few seconds and a few hours depending on the speed of your internet.

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**Note** **Good sound quality**

If you're playing the films on a projector connected to your DVD player, PC or laptop, we recommend you use loudspeakers.

# Global Ideas

## The multimedia environment magazine

**Around the world, imaginative people and innovative projects are working to protect our climate and biodiversity. Global Ideas tells their stories on TV and online every week.**

**Global Ideas** is Deutsche Welle's multiple award-winning, multimedia environment magazine supported by the German Environment Ministry's International Climate Initiative. Established in 2009, it showcases TV reports, background articles, web specials and much more, as a means of informing people all over the world about best practice initiatives to protect the planet.

**Global Ideas** is more than just television. Think interactive specials such as a visit with Africa's wild animals or easy-to-understand explainers that answers complex questions about the environment and changing climate. The magazine also has an educational element in the form of carefully crafted "learning packs" on key environmental topics. Available free of charge in German, English and Spanish, these learning materials include videos, articles, worksheets and teacher handouts, as well as other educational materials such as posters, picture cards and practical experiments. The learning packs are available in booklet form with an accompanying DVD, as well as online for distance and in-person learning.

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