

Non-Formal Education Methods
for
Sustainable Development

ACTIVITY BOOKLET

Toy Gençlik Derneđi

Hořnudiye Mahallesi porsuk bulvarı Sahil Yolu Sokak No:84/25
26130 Tepebaşı / Eskiřehir / Trkiye

www.toygenclik.org

info@toygenclik.org

Janun Hannover e.V.

FrbelstraÙe 5, 30451 Hannover / Germany

<https://janun-hannover.de/>

buero@janun-hannover.de

Authors:

Achim Riemann

Ezgi Gedik

Lucas Hellwig

Mert Akkař

Nurřen uyar

Final Editor:**Contributors:**

Gkçe Yetkin

Zeynep ksz

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Welcome on Board! - The Story of the Booklet

Civil Society Exchange Program¹

Civil Society Exchange is a collaboration project between the Center for Civil Society Studies at Istanbul Bilgi University² and MitOst e.V.³ to support civil society organizations and civil initiatives in Turkey and Europe through cross-border cooperation. The project encourages civil society organizations to form and foster partnerships across Turkey and Europe to learn from each other and to strengthen their organizational capacity.

The project was initiated by the Center for Civil Society Studies at Istanbul Bilgi University in 2015 as a capacity building and organizational sustainability program for civil society organizations in Turkey. In 2017, Center for Civil Society Studies partnered with MitOst in Germany to implement a new international mobility model, *capacity through mobility model*, which enables participants to develop a strategy for tackling a mutual organizational issue, to implement a solution for a specific problem and to improve their internal capacity through cross-border collaboration.

Currently Civil Society Exchange operates two programs that place the *capacity through mobility model* at their core. Exchange Program has been ongoing since 2017 and connects civil society organizations across countries for capacity building. Partnership Program has started in 2020 and the project supports 4 partner organizations in co-designing and developing their own partnership program between Turkey and Europe.

Civil Society Exchange has been generously supported by Stiftung Mercator⁴ since 2015.

Toy Youth Association⁵

Toy Youth Association (Toy) was established at the end of 2017 as a non-profit organization by the youth workers, and young volunteers. Toy is an association of young people who are dedicated to youth work and work voluntarily or professionally in this field who have come together to take their work to the next level and make dreams. Hence, there is an emphasis on learning by doing for young people involved in the association and empowerment is a function of the activities and involvement they have at Toy Association.

Toy Youth Association aims to protect and improve youth rights within the frames of national and international agreements on a local, national and international level; to involve young people in creating a holistic youth policy, to contribute to the process by improving awareness of democracy and negotiation, to create an awareness and sensibility of

¹ <https://civilsocietyexchange.org/>

² <http://stcm.bilgi.edu.tr/english/>

³ <https://www.mitost.org/en.html>

⁴ <https://www.stiftung-mercator.de/en/>

⁵ <https://www.toygenclik.org/>

ecological lifestyle and to offer solutions to the problems resulted by the irreversible deterioration of ecological balance and to support a life in harmony with nature. Toy aims to ensure the full participation of young people in decision-making processes, to the labor market and the civil society and create opportunities for such goals.

Toy defines its role/mission based on two main axes: (a) supporting the development, awareness, empowerment and involvement of young people in all aspects, (b) providing the youth with the necessary means and opportunities and environments, and encouraging other relevant actors to do the same.

Janun Hannover e.V.⁶

JANUN e.V. is a youth organization that was founded in 1994 in Hannover. While in the first years mainly ecological topics were at the center of the activities, the topic has meanwhile expanded. International cooperation, multiculturalism & migration, globalization and justice, child and youth rights, inclusion are topics that currently play a major role at JANUN. In various working groups, young people are involved and are active in content-related topics or organize campaigns, seminars, projects or international youth-exchanges. The young people are supported by full-time employees who have pedagogical training. Working groups and projects are currently on the following topics: Environmental Education, Nature Conservation, Radio, Inclusion, Climate Change, Nuclear Power & Chernobyl, Indigenous Peoples, Consumption & Globalization. Every year, since 1996, around 10 international youth-exchanges have taken place with long-standing partner organizations. JANUN e.V. cooperates with partner organizations in Russia, Ukraine, Belarus, Serbia, Slovenia, Norway, Turkey, Northern-Macedonia and Malawi. There are separate working groups for various international partnership projects, which plan and carry out the youth exchanges. Every year JANUN runs around 100 workshops in schools about different topics, using non-formal methods.

In addition, there are two projects that are led by two JANUN staff members. These are the projects "Kleiner Jugentreff Südstadt", a small neighborhood-based youth center, and a child and youth participation project. JANUN runs these two projects on behalf of the City of Hannover.

HOW TO USE THIS BOOKLET

⁶ <https://janun-hannover.de/>

SUSTAINABLE DEVELOPMENT GOALS

Sustainable Development Goals⁷, conducted by the United Nations Development Programme is a comprehensive call to action. Sustainable Development Goals (or Purpose) originally published in 2000, it was established as "Millennium Goals" and covered a period of 15 years. Improvement and promotion, especially in the environment, education and employment, in line with the Millennium Goals studies have been carried out. By 2015, at least half of the goals had been completed in the first semester of the Millennium Goals and new regulations have been taken again to cover 2015 – 2030. New regulations covering 2015 – 2030 were not called the Millennium Goals, but the Sustainable Development Goals.

In line with these goals in which more than 180 countries participated, conducted by the United Nations Development Programme, action is planned at local, national and international scales. While only 8 goals were set in the first 15 years, 17 goals were set for the 2nd term. The 17 targets are set for different purposes and each item is basically designed to benefit each other. For example; prevent malnutrition work to improve access to clean, safe food can be constructed in an intricate way with the goals such as Zero Hunger (Goal 2), Good Health and Well-being (Goal 3), Clean Water and Sanitation (Goal 6) and Reduced Inequalities (Goal 10).

The ability to use the Sustainable Development Goals together easily is comprehensive, facilitates sustainable and high-impact studies. Another positive effect of the interconnectedness of substances is the awareness of people and the question is to get them to start asking. Supporting the "Responsible Production and Consumption" goal is also important for the correct and even disseminating of information in order to increase productivity.

Finally, the United Nations Development Programme recommends to individuals, institutions and organizations that will work on targets; multi-directional movement, choose the target audience correctly while sharing, care about cooperation and making experience-oriented plans. It is valuable to include the next generation methods in the process, regardless of which item is selected as the field of study within the Sustainable Development Goals. With these goals, UNDP invites individuals, NGOs and public institutions and organizations to think wide. To start influencing the existing area, to strengthen the impact and to build it on solid foundations, as UNDP says, "We must act now."

⁷ <https://sdgs.un.org/>

SUSTAINABLE CONSUMPTION

Introduction to Sustainable Consumption

Sustainable consumption means, regardless of whether it is an individual or collectively, that the product used and therefore consumed respects nature and protects natural resources. When talking about the concept of sustainable consumption, it is necessary to explain patterns such as conscious consumer, sustainable production, ethical exchange and respect for nature. In order to act with the principle of sustainable consumption, turning into a conscious consumer is the most important step. When a sustainable life cycle and efficient use of natural resources are mentioned, there is a misconception that large-scale changes need to be made. An eco-friendly sense of consumption taking calmer and more decisive steps to adopt is enough to begin with.

Sustainable consumption does not force the individual to reduce the amount of products they consume directly. There are different steps to becoming a conscious consumer, and "inquiry" is at the top of these steps. Starting to ask questions and learning more about the product used creates an opportunity to change preferences. As the inquiry begins, concepts are introduced, which means changing not only the subject of shopping and consumption, but also vital practices. Taking small steps for sustainable consumption is an action that should not be simplistic. Preferring public transportation, using local businesses instead of online shopping, and preparing a list while shopping are among the easiest steps to take.

Examining the concept of the need to focus on changing fast consumption habits is also among the steps. Re-establishing preferred brands and products within the framework of ethical values evaluates supporting being a conscious consumer. Contrary to popular belief, it is not difficult to embrace sustainable consumption and become a conscious consumer. The continued value and respect we show to ourselves as subjects depends on our relationship with nature. The idea that nature is limitless leads to the usurpation of fundamental rights. Therefore, understanding that nature, energy and renewable resources are not unlimited is the basic principle of sustainable consumption.

When you look around carefully, you see undiscomplicated garbage, food scattered on the streets and couriers occupying all roads. Sustainable consumption is a mandatory solution that develops precisely in the face of these situations. A form of consumption that supports the circular economy will ensure that production is also eco-friendly. The waste culture created today means stealing from the source of the next day. Understanding the value of the link between sustainable production and consumption becomes important again at this point. Realizing that we have the right to change our preferences will make it easier for us to be conscious consumers. With sustainable consumption, 1.7 tons of food wasted throughout the year, 690 million people affected by hunger, 8 million plastic waste turned into garbage, and the deterioration of the entire ecosystem, especially the sea, are the side effects of waste and fast consumption culture. Sustainable consumption and production, which will be taken into action with awareness, is the only solution not to lose natural resources irreversibly.

Barter Market

[Fair Trade – a way to create a better world](#)

Overview

This small interactive exercise shows the positive aspects about Fair Trade. It is about much more than better wages for workers in poor countries. Fair Trade, initiated long ago by the churches, can be a model for a fair world trade without exploitation. This is illustrated with the help of five objects. This method is particularly suitable after the shoe and the jeans have been used to illustrate the injustice of world trade. See methods in this booklet. Now comes the better alternative.

Group size & target group

Recommended for ages 13-19 / up to 30 participants

Time - duration

20-30 minutes

Material & preparation

International Fair Trade Logo, a contract on a piece of paper, a gauze bandage or something similar, a piece of chalk, a ball, fair trade chocolate if possible

Instructions for running the workshop

A fair globalization without exploitation of people and nature is possible. And it already exists. You can recognize it by this sign.

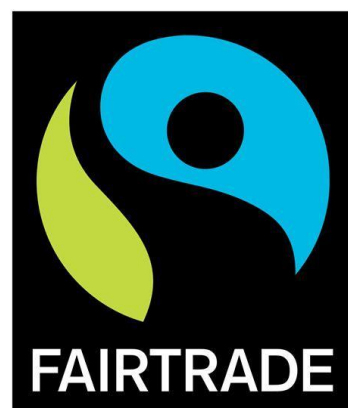
Now you show the "Fairtrade logo" and ask, who of you knows this logo?

Where have you seen it? Aha, in the supermarket.

And on which products?

Now you can collect products with that symbol:

For example, coffee, tea, orange juice, sugar, chocolate, cocoa, bananas, honey.



If you brought a fair trade chocolate you can now pass it around so everybody can taste.

We will test now if fair also tastes good. I have brought fair trade chocolate here. Try it. Because that is of course also important. It must also taste good.

While the chocolate goes around, you continue:

Imagine. You're standing in front of the shelf with coffee in the supermarket and you're thinking about which one to buy. There's the one and there's the one with the Fair Trade-Logo. The one with the Fair Trade seal costs €1.50 more. That is a difference. Now it would be important to know what exactly is better about the fair trade coffee, so that I might decide to buy it, even if it is more expensive. So it is important to know what this sign stands for:



Which of you knows something about it?

The answer is usually: The coffee farmers get more money for their coffee.

Answer: That's right, the farmers who grow the coffee then get about twice as much for their coffee. If they got twice as much, you could say that they could live quite well on that. That is an important reason. But there's more to it than that. Does anyone else have any ideas? Then usually not much more comes.

In addition, participants often say that fair trade products are also **organic**.

Answer: The FairTrade seal says nothing about whether a product is also organic, i.e. whether it was produced without pesticides and chemical fertilizers. In fact, 70% of fair trade foods are now organic. This is also better for the farmers and workers who do not come into contact with the chemicals.

Question for the group: What else could it be?

If nothing else comes up, get a **gauze bandage** out of your bag. "This here also has something to do with Fair Trade in a sense".

Because, 10% of the price goes to the community, for example the village where the coffee you bought comes from. This money is then not given to the producers, but to everyone in the village together. They then decide together what they want to do with the money. This can be the construction of a health station, the renovation of the school, the repair of a bridge. In this way, everyone in the village benefits from fair trade, not just the farmers who grow their own coffee.



Then I do have this: You take out a small ball and a piece of chalk from your bag.

What could the ball and chalk stand for? Children! Right. Thereby we are on the subject of child labor.

What do you think? Can there be child labor in fair trade coffee?

Most often, the answer comes back "no."

In fact, it may well be that children have picked the coffee beans for this coffee. Because in many countries it is quite normal that children work. Even those who grow up on a farm in Germany are likely to help in the fields at home during harvest time.

But there are big differences. Not all child labor is the same.

There is exploitative child labor:

For example;

"You are 10 years old, living in Mali, a country in Africa. Your grandmother is seriously ill. Your parents borrow money to pay for her treatment at the hospital. But then they can't pay back the money they borrowed + the 30% interest. Finally, the money lender forces your parents to give you, exactly you, you are just 10 years old, thereby to work off the debt. With other children, you end up on a cocoa plantation in the Ivory Coast for eight months, working 10 hours a day, six days a week. Maybe you'll have worked off the debt by then, but maybe not. If not, you'll stay on the plantation even longer.

Worldwide, more than 200,000 child slaves work on cocoa plantations, just like you. Or you are a child in Pakistan working in a factory, or in India in a stone quarry. That is exploitative child labor. It's banned in fair trade.

Worldwide, 152 million children have to work to help their families survive. This is according to the Child Labor Report 2019 of the child protection organization Terre des Hommes. According to the report, almost half of them (73 million) suffer from working conditions that are dangerous or exploitative, for example as labor slaves in mining and stone quarries, in pesticide-contaminated cotton fields or as maids. Most boys and girls affected by child labor live in Africa (72 million), followed by Asia (62 million), according to the study. More than 70 percent of working girls and boys are involved in agriculture.



This child labor is allowed:

You're 10 years old, you go to school. At noon, you come home. You eat together with your parents and your brothers and sisters. You might tell them what you did at school. Then, together with your siblings and your father, you go to your own field right next to your house. It's harvest time and you're plowing coffee together. Maybe you sing your favorite songs while you do it.

The important thing is: These children are working in their own field and together with their parents and siblings. And they definitely have time to go to school.

For me personally, this is the most important reason to buy fair trade products. I don't want to eat chocolate and have to think about whether children were exploited for my chocolate.

Then there is at least one more important reason why it is worth spending more money on fair trade products.

Now you pull the contract out of the bag.

A woman from India explained well why a contract is important. She was running a women's cooperative in India. A cooperative is an association of people who own a farm or a business together. They decide everything together and democratically, elect the leader together. This lady was such a leader:

"Through Fair Trade, we earn twice as much as before. And the village gets extra money, for example to build a school. But the most important thing is that we have a contract. Since we have the contract, I can sleep peacefully and don't have to worry about the future. It used to be like this. We produce jewelry in our cooperative. Dealers from Europe came and said - make blue necklaces, this will go really well next year - . That's what we did. Then they came back a few months later, saw our necklaces and said - well, they would be great in red, but in blue, that's not going well right now, we can't take them. Then they said, okay, for half the price we'll take them - and then you think, for half the price? That's a disaster. But if we don't sell them at all, the disaster is even bigger. Today, through Fair Trade, we make precise contracts that say exactly what we produce at what we will earn. So we have security. And we can get some of the money earlier, which is also important."

All of that is in fair trade. It's all in the €1.50 for fair trade coffee, for example.

How much of the coffee drunk in Germany (or in your country) do you think is fair trade?

You let the participants guess.

It is just 5% in Germany!

We can all help to increase that. You can quickly become one of the good ones.

Look at the accompanying teachers if a school-class is participating in your workshop and ask: "What kind of coffee do you actually drink in the teachers' lounge?"

The answer is usually: "Oh, I don't know."

You can then ask the students: "Why don't you go to the teachers' room tomorrow during the break, knock on the door and tell them you've learned about fair trade and want to find out what kind of coffee is made in the teachers' lounge?"

More facts about Fair Trade⁸

- 1.66 million workers and farmers worldwide work in fair trade.
- Around 125 million people worldwide live from coffee cultivation alone (farmers/plantation workers and their families).
- According to surveys, 83 % of Germans are familiar with the Fairtrade seal. 95 % of those who know it trust that what it promises will be kept.
- Fair trade sales have more than doubled in the last five years. On average, consumers in Germany now spend 20.50 € per capita a year on fair food and fair trade handicraft products.
- With a share of 32%, coffee continues to be the product with the highest turnover in fair trade. Every twentieth cup of coffee drunk in Germany comes from Fair Trade.
- The study "Coffee: A success story masks the crisis⁹" shows that the value added by coffee roasters and retailers in Germany has risen by 139% over the past 20 years, while it has fallen by 10% in the producing countries.
- More and more producers are giving up coffee growing and see migration as the only way out. They are moving to the cities, where there are hardly any jobs either.

⁸ https://www.brot-fuer-die-welt.de/themen/fairen-handel/?gclid=EAlalQobChMIgsjKIPG_6AIVy-R3Ch11MqvIEAAYASAAEgKUIPD_BwE

⁹ <https://www.forum-fairer-handel.de/fairen-handel/zahlen-fakten/>

[Where Does the Money Go?](#)
[An example on pair of sneakers](#)

Overview

This “game” shows where your money goes that you pay in the shop when you buy sneakers. In particular, this workshop is about what the workers who produce this shoe, mostly in Southeast Asia, earn. Can they make a good living from that and if not, who could improve something about their situation and how? The shoe is just an example here. T-shirts, pants, cell phones, the situation is very similar here.

Group size & target group

Recommended for grades 7-13 (ages 13-19) / up to 30 participants

Time - duration

20-30 minutes

Material & preparation

Shoe puzzle - download from www.janun-hannover.de

Labels for the individual cost areas (retail, material, advertising, design, brand, transport, subcontractors, workers)

Two paper wage envelopes folded, one with 40-euro cents, one with 36-euro cents in it.

Instructions for running the workshop

The workshop can be held in one room, e.g. in a classroom, or in the city centre, e.g. in front of a shoe shop.

The opening question is:

Where were the shoes produced that you are currently wearing?



The participants are asked to look in their shoes. Experience has shown that most of them participate. But, nobody should be forced. The small pieces of paper sewn into the shoe usually state where it was produced. Answers are collected. Above all, China, Vietnam, Indonesia, Cambodia and India are mentioned.

“50 years ago your shoes might have been produced in Europe. Probably 20 years ago in China. The production is now moving on, from China to Indonesia, Cambodia and Vietnam. Do you have any idea why? Exactly, it has to do with wages. Companies like to have their shoes produced where this is as cheap as possible. And it is cheap where wages are low. Relocating production to another country is easy because companies such as Adidas do not have to move. Because they do not even produce shoes themselves. You simply order from a local supplier, e.g. in China. If someone else does it cheaper, e.g. in Vietnam, then you get the next order. And since wages are now rising in China due to the general economic

upswing in China, the corporations are looking for countries, where they can produce much cheaper. In Vietnam, wages are currently 2/3 lower than in China.

Now let's see what happens to the money that someone spends on their sneakers. (Of course, the costs vary depending on the product. These are researched mean values).

The structure:

1. The puzzle pieces are distributed to the participants, who then puzzle them together on the floor or on a table so that everyone can see the shoe puzzle clearly. The participants stand in a circle around the puzzle.
2. Now, you briefly explain the cards (the brand, advertising, material...) and place them around the pieced-together shoe. All cards are part of a spending factor of the sneaker. So there is a card for every piece of the puzzle.



3. Now, it is a matter of assigning the cards to the puzzle pieces. Let's start with the largest piece of the puzzle. Now the participants should choose which card could belong to the largest piece of the puzzle. Now you can also say that this piece of the puzzle accounts for 50% of the final price. The correct answer is retail, which means the shop.

"Wow, I'll open my own store and sell shoes when I make that much profit. Half the money stays with me in the shop."

However, it is not so nice, because the 50% is not the net profit. "

Question to the participants: "What expenses does the shoe shop have?" Together with the participants, the following is collected: shop rent, wages for the salespeople, VAT (19%) in Germany, discount campaigns, electricity ... There is not so much remaining. The next largest piece of the puzzle is 13%. The participants think about which of the cards fits the next largest piece of the puzzle. Answer: The brand, e.g. Adidas, Puma, Nike.

About 8% of this is the net profit, which is then paid out to the owners / shareholders.

11% research and design. Of course, the shoe has to be designed and developed in such a way that it is as good and beautiful as possible. That is why a lot of money is spent on design and material development. 11 € or (11 %) of a € 100 shoe goes towards its development.

9% advertising. The industry spends € 380 each year on advertising for each of us. Of course, they add this € 380 to the products they sell. If you buy sports shoes for € 100, you will pay back around € 9 of the € 380. So you pay for your own advertising.

8% material. This is the first real thing you can touch and see. In this case, the material of a shoe costs eight euros (8 %). Normally the material would have to be more expensive. But the wages of those who manufacture and deliver the material are far too low. Because they are not paid fairly.

5% transport, import and export tax, port fees.

3.6% for the producer. This money goes to the producer of the shoes. He receives the money for the organization, logistics, procurement of materials, the provision of the production hall and the machines. He also has to pay taxes from it. Not yet included are the wages for the workers who produce the shoes.

0.4% wages for the workers: To increase the "tension" a little, don't say the amount yet, but give someone in the group a wage packet with the words "What the workers in Vietnam get from the 100 Euros is here in the pay packet."

After the wage bag has been opened, the result is certain. 0.4% that is what the workers get proportionally per shoe. That is approx. € 0.40 per pair of shoes. So we don't yet know what workers in Vietnam get per month. I will tell you, a typical monthly wage is around € 180.¹⁰

Ask the group:

"What do you think workers have to earn in order for their wages to be fair? So that you can live carefree: buy food, rent a small apartment, but no vacation trips, no car, no separate room for the two children, but maybe you can save money for a radio, buying exercise books for school is also possible. What do you think, what else do you have to get in addition to the 180 €? Life is cheaper in Vietnam than it is here, rents are lower, and groceries cost less."

¹⁰ <https://www.aseanbriefing.com/news/mindestloehne-in-den-asean-staat/>

The participants mention a few sums, but you do not comment on them at this point. Church organizations calculated what still had to come on top.

One participant is given a second wage packet. "Take a look at the second wage packet. What is in there should be on top of each shoe, on top of the € 0.40!

34 cents. So the workers would have to get 76 cents per pair of shoes instead of 40 cents and it would be relatively ok. This means that the monthly wage would roughly double from € 180 to € 350. That would of course be a huge difference for the workers. For the price calculation of our € 100 sneaker, the difference is a joke.

Ask the group: "Why doesn't this happen? Why do the workers only get 40 cents instead of 76 cents for a 100 Euro shoe? "

You initiate a small discussion and can ask more specifically:

What can workers do themselves if they feel they are treated unfairly?

You wait for answers and otherwise you can make suggestions yourself. E.g., the workers in Vietnam could go to the boss and complain or they could strike? You wait and try to get the participants to comment on your suggestions.

Then you explain: "Anyone who strikes or protests is usually fired. There is no right to strike as we do have. Anyone who loses his or her job receives little or no financial support from the state, or only for a few months. After that, you do not get anything. Therefore, the workers hardly have a chance to defend themselves.

The brand, what could Adidas do, for example?

In fact, that would be the easiest way to go. Adidas pays more and demands that the more money paid reach the workers. And they control that too. However, they do nothing, or far too little. Otherwise, the workers would earn more.

We remain consumers. What can we do?

Boycott! Do not buy Adidas shoes anymore (This is often mentioned as an idea. That would actually be a possibility. But, this not only harms the brands and producers, it also causes workers to lose their jobs. On the other hand, a successful boycott can quickly lead to changes.)

Buy fair shoes. (That would be a very good alternative, but it is difficult because there has been little choice so far - but that is currently changing.)

What everyone can do very quickly: Asking questions in the shop: E.g., "I like the shoes very much. Can you tell me what the workers who produced these sneakers are being paid for? Do they get paid for their overtime? Do they have health insurance? "The sellers will likely say they do not know. Then you can ask: Who can answer my questions?" For



example, you can leave your email address there and ask for information. That will definitely become a conversation among colleagues. Whenever customers ask, it becomes an issue in the business and in the group. Alternatively, ask your questions by email. Write to the brands directly. Be curious about the answers, you will certainly get one. It may not be that meaningful, but that does not necessarily matter. It is important that the companies notice that more and more customers want a product not only to be cheap and good, but also to have been produced fairly. The corporations have become during the last years very sensitive to this issue. Because the saying "the customer is king" is not for nothing.

Have you heard that before? There is a rule of thumb in the business world that makes it very clear how seriously you are taken as customers: Everyone who complains in Germany stands for 30,000 others who have the same opinion, but do not report and complain. There are almost 30 people here in the workshop. If each of you writes an email to your favorite brand today, then you stand for almost a million customers who want something to change.

FASHION and SUSTAINABILITY

Introduction to Fashion & Sustainability

Sustainable fashion: does not mean that a product is used for a long time, but that it is produced by recycling from ethical and environmentally friendly materials. For this reason, the words fashion and sustainability have been used together frequently in the recent period. Sustainability is not specific to a single sector, product or area. It is possible to talk about sustainability in the fashion sector, just as topics such as agriculture, food and technology are made sustainable. The concept of sustainability, which is the horizontal cross of every product, service and work produced and consumed, is also used in textiles and has to be used. This imperative arises when the amount of natural resources that fashion spends is investigated. When the greenhouse gas, water consumption amount, carbon emission and pollution problems that arise in the production of only one t-shirt are examined, it is understood why fashion should be sustainable.

The concept of sustainable fashion is used to minimize the problems that arise in textile production. These products are in the product group produced with green textile. Green textile is a name given to textile production that protects nature and does not contain chemicals. Each fashion product produced under this textile group; In addition to being recyclable, it also ensures that human health is not endangered. Each rate of natural resource used by the fashion industry creates problems that are difficult to reverse. The fact that fashion has become fast consumption and products are obtained from low quality raw materials has created a disposable habit. This habit paves the way for a decrease in the number of quality products, an increase in the frequency of shopping and environmental, air and noise pollution, especially water pollution.

The design of clothes and accessories as an identity rather than a necessity has been effective in making textile products increasingly useless. The emergence of the concept of "unnecessary need" arises precisely from the contrast within itself. Individual and collective studies are required to eliminate the ecological destruction caused by fast fashion. The two most valuable tips for individual improvements: consider bartering and second-hand shopping. Recommendations for the collective and brands include slowing down fashion.

The acceleration of fashion does not indicate that it is in a better position, on the contrary, it indicates that it is damaging.

As long as we do not change our choices towards eco-fashion as individuals, the problems in the fashion industry will continue to increase. Today, to act with fast consumption and not to question the preferred brands; means supporting a cheap and exploitative workforce. Working conditions need to be improved in order to talk about fair production, consumption and trade. The rapid consumption of water and agriculture, which is one of the most used resources of fashion, also causes damage to the soils. Realizing that all consumption issues are closely interrelated creates the opportunity to take action.

Good Boss, Bad Boss

Journey of the Jeans

Overview

One pair of jeans pants is used to show in an interactive way how many countries are for example involved in the production of jeans. Ecological and social aspects on the way are thematised. The participants put the ten exemplary stations in the right order, from the cotton field to the shop and beyond. They get to know the individual work steps and their social and ecological effects.



Group size & target group

Recommended for grades 7-13 (ages 13-19) / up to 30 participants

Time - duration

20 minutes

Material & preparation

10 cards each documenting one station of a pair of jeans, for download at

www.janun-hannover.de

A world map or a globe

**Instructions how to run the workshop**

The workshop can take place in a room or in a shopping-street, e.g. in front of a clothing store. We usually do it in Hannover in front of H&M.

That how we usually start:

“We are now in front of H&M and it is about, of course, about clothes.

How many items of clothing do you think you buy each year? Individual participants now name numbers. If no one likes to guess how many items of clothing he / she buys per year, you can also ask to get in touch, e.g. Who of you buys more than 20, more than 40, more than 60 items of clothing a year?

One method is also to let the participants raise their hands: Who believes that he / she buys little, medium or many clothes? Then you can ask some of the participants from the beginning, the middle and the end of the chain.

“You are standing here at the spot with few clothes. What does a few clothes mean to you?”

Or:

“If you think you are buying less than 60 pieces of clothing a year, you are on this side, if you think you are buying more, you are on that side.” After several estimates have been collected, it is revealed how many items of clothing per person per year are bought in their own country.

“So the German average is 60 items of clothing per year. Young people like you are on average above this, your grandparents probably below it. We are not world champions with that, because more clothes per person are bought in the USA, but we are close. And what I think is frightening is that we only wear the clothes on average for half as long as people did 15 years ago. The production of clothing doubled worldwide from 2000 to 2014. However, the cost of twice as many items of clothing only increased by 10%.”

“Now let us take a closer look at how it works to produce twice as much for almost the same price. Let's take one of the most popular pieces of clothing as an example, which most of you will have in your closet and what some of you are wearing right now.

What could that be?

Exactly, this is about jeans. As you probably know, it is not sewn here at H&M in Hannover and there are no cotton fields in Germany either. Where do jeans come from and what happens on the way to their production? Each of the ten cards in my hand represents a country that is an important part in the life of a pair of jeans, especially during their production.

This is an example. There are of course other production chains as well. I will hand out the cards now. They are mixed up.

Your job is to put the cards in the right order. That for you position yourself together with "your" card in the correct order from the beginning of the production chain to the end of the life of a pair of jeans.



Please build a semicircle, so you can see the other cards too. Here is a globe (or a world map). Two of you get the globe and can look for the countries that we have on the cards. Then you can always show us where the country is that we are talking about. Who wants the globe? The others who have not received a card can see whether the order is correct or whether you would like to change something.”

Now there are two variants

* First correct the card sequence until it is correct, and then go into the individual production steps

* Go into the production steps and correct them as you go. This could increase the interest a little, as the group does not know until the end whether they did everything right. A special feature of the "Design" card: It is practically the Joker card. It does not have a permanent

place in the line, but has to appear before the Philippines. After all, the worker have to know what the trousers they are sewing should look like.

The correct order is: India / Burkina Faso (cotton cultivation) China (spinning and dyeing of the yarn) Poland (weaving of the fabric) Sweden (design) France (production of the washing label) Philippines (sewing of jeans) Pakistan / Turkey (sandblasting) Germany (sales) Netherlands (second hand wholesale) Ghana (second hand sales).

Since the capacity of the participants and our time are limited, not every station is dealt with in depth. Therefore, it starts in India.

India (cotton cultivation):

Keyword child labour: Around 220,000 children under the age of 14 work in India's cotton industry. Girls in particular are popular workers in the cultivation of the plants. Girls and women have a lower position in Indian society and can therefore be exploited particularly easily. They make about 20 cents an hour.¹¹ It does not look any better in many other cotton-growing countries. There, too, many children have to work in the fields.

Keyword water: Cotton plants need a lot of water. Since cotton is cultivated in very hot areas, where it hardly rains in summer, the water has to be pumped deep from the ground. This lowers the groundwater level which creates big problems for the farmer. Or the water is transported over long distances. This water is then missing elsewhere. On average, around 11,000 litres of water are required to produce one kilogram of cotton. All over the world, 256 cubic kilometres of water are required for cotton production - an amount that would be sufficient to supply every person on earth with 120 litres of fresh water per day.¹²

Keyword chemical substances: In just one season, the cotton plants are sprayed with poisons between 14 and 30 times. Around a quarter of the insecticides used in arable farming worldwide are sprayed on cotton, even though cotton fields only covers 2.5% of the world's arable land. The residues end up in the soil and drinking water. Chemical residues can also be found repeatedly in the clothing that is produced. With each wash, a few of them disappear from clothing and go into the sewage system, which is of course not a good thing either. Nevertheless, that is why it is particularly healthy to buy second hand, because the clothes have already been washed many times before you wear them.



¹¹ <https://www.unicef.de/informieren/projekte/asien-4300/lösungen-3596/kinderarbeit/13084>.

¹² <http://virtuelles-wasser.de/baumwolle.html>

China (production of the yarn from the cotton): In China there are large factories in which the thread is spun from the cotton. It is also coloured there.

Poland (weave fabric): The dyed yarn is now transported to Europe. In Poland, it is woven into the fabric on large weaving machines, from which trousers are then sewn in the Philippines.



Sweden (design)

The jeans are from a Swedish brand (H&M), so the design comes from Sweden.

Philippines (sewing jeans together)

The fabric is transported from Poland to the Philippines, where mainly women sew the trousers on sewing machines. For this they get around 140 € a month. Often they work ten hours a day, six days a week.

Question?

The dyed yarn is transported from China to Poland. The fabric woven in Poland then goes to the Philippines and comes back to Europe as trousers. Why all these detours? Asia - Europe - Asia – Europe? Why aren't the trousers sewn together in Poland or the fabric woven in the Philippines when the trousers are also produced there?

The solution is in these two pictures.

Look at the pictures "Poland" and "Philippines" again.

What is the biggest difference when you look at the two photos from the Philippines and from Poland?

You make the participants guess. They probably conclude that there are many people in one picture, and none in the other, only machines.

“That is right, in the picture in Poland you can see machines, whereas in the one from the Philippines there are many people who do the work there. And therein lies the reason why one thing happens in Poland and the other in the Philippines.”

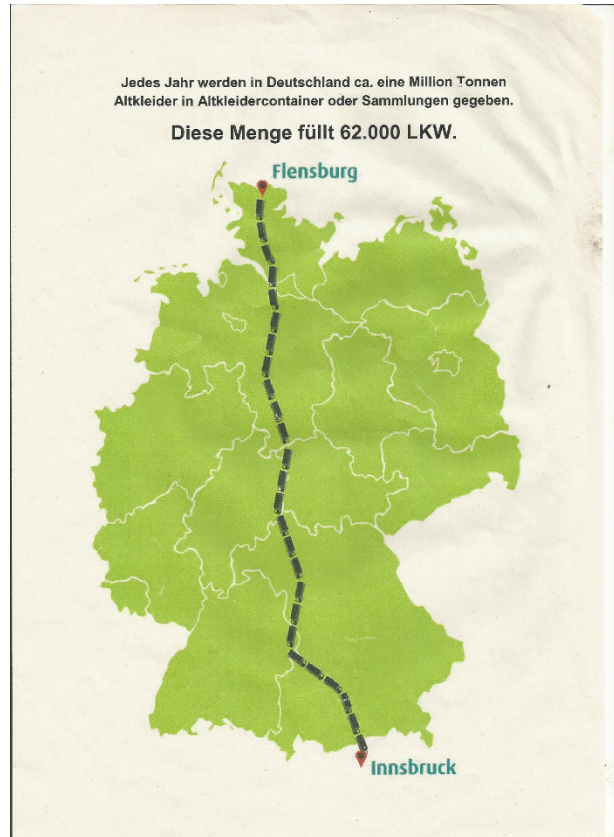
It has to do with the people and the wages they get. The corporations want to save money and produce as cheap as possible. Nevertheless, the quality should be good. In Poland, large machines that do not receive any wages mainly do the weaving. The few workers who operate these machines must be well trained. When a loom breaks down, someone has to

come quickly to fix it. It is easier in Poland because the machines were also produced in Europe. It is then worth paying more wages for a few workers in Poland than having it done more cheaply in the Philippines, where the nearest mechanic is far away. But, you still want to save money. That is why this work is done in Poland and not in Sweden or Germany. In Germany, the gross monthly wage of a skilled worker is around € 2500. In Sweden, it would be even more. In Poland, a well-trained skilled worker earns around € 800 a month. As you can see in the photo of the Philippines, the trousers are sewn by hand on small sewing machines. This is why manual labour is there, where people work for as little money as possible. Southeast Asia is very popular. In the Philippines, workers earn around € 140 per month. That is about 60 cents an hour.

Pakistan (Sandblasting)

Now the pants are actually finished, but make one more stop in Pakistan, where they are processed with sandblasting, as you can see on the photo here. Why do you do this? Does somebody has any idea?

Exactly, that results in the so-called stone wash effect. The problem for the workers is that it is very unhealthy. You only protect yourself with a cloth, as can be seen in the photo. Everywhere in the air is the fine sand that you breathe while you work. This also gets into the lungs. There are also healthy and environmentally friendly ways to achieve this effect, for example with lasers. That is significantly more expensive. In some countries, sandblasting has already been banned, but then it is simply done somewhere else where it is still allowed. Pressure must be put on H&M and others to stop this.



Germany (Sales):

Arrived! After all, the pants are bought, but often not worn for long. How many items of clothing do Germans buy on average each year? Do you still know? Exactly! 60 pieces.

Ask the participants: What do you do with your clothes if you no longer want to wear them?

Small discussion.

You can also ask: Who is giving them away? Who puts them in the used clothes bins? Who has smaller siblings who then carry them?

A lot ends up in the used clothes container. Every year around one million tons of clothing are thrown into used clothing containers in Germany. That amount would fill 62,000 trucks. If you were to string these together, the result would be a line of trucks from Hannover to Paris or across all Germany from the north to the south.¹³

Netherlands (Second-hand)

There are large companies especially in the Netherlands that collect the clothes out of the containers. Many pieces of clothing (better ones) are then exported to Africa, where they are sold in Ghana, for example.

Ghana (sale of second-hand pants)

Second-hand clothing from Europe is sold very cheaply in markets in Ghana, for example. That has advantages. Since most people in Ghana do not earn much, they are more likely to be able to afford jeans if they do not cost a lot.

But, it also has at least one disadvantage. Do you have any idea what that could be? The cheap second-hand clothes are so cheap that many local companies have to give up because the clothes they produce are more expensive and they can hardly sell theirs anymore. This also means that there are less and less people in these countries wearing traditional clothing. In Ghana, they call this second-hand clothing from Europe "The Dead White Man's Clothes".

Do you have any idea why it is called like this?

Answer: The clothes are still good, sound and clean. In Ghana, you cannot imagine throwing away such good clothes. You wear them or give them away to relatives or neighbours. The only possible explanation is that the owner of the clothes has died and that the clothes of a dead person are not worn.



The end:

And how many kilometres was it now that the jeans have traveled?

Guess.

About 40,000 kilometres! That is almost exactly once around the whole earth, which at the equator has a circumference of 40,075.017 km.

If the participants are motivated and you still do have time, you can follow up with a small discussion.

What can we do about low wages and overproduction?

Buy second-hand, maybe organize a swap party, buy less and prefer to buy fair clothes with the money you save or, if that is difficult, other fair-trade products such as chocolate or coffee. Write an email to a Fashion Company and ask them about the conditions of the people who are sewing the clothes for them. Ask them about the ecological impact!

(In marketing, every critical email from a consumer represents 30,000 customers who share the same view but don't write an email. Writing emails, asking questions, expressing criticism is definitely noticed by the companies, especially in the lifestyle industry.)

¹³ <https://www.fairwert.de/blog/blog.21/index.htmlNetherlands>

NUTRITION and SUSTAINABILITY

Introduction to Nutrition and Sustainability

When it comes to nutrition, it is no longer necessary to limit only the foods that people consume. While talking about nutrition, it has become important to talk about sustainable agriculture, the circular economy of food and the diversity of production. For this reason, it is necessary not to evaluate only on the nutritional and nutritional values scale and not to focus only on the consumption of food. Food is a substance that enables all living things to continue their lives by making use of their nutritional values. Today, this substance is not only prepared as human food, but also used as a raw material in industries such as pharmaceuticals and cosmetics. Another feature of nutrition, which is divided into two groups as processed and unprocessed according to the area of use, is that it is the most wasted item in the world.

When talking about the current situation and future of nutrition, two important concepts emerge: sustainability and circularity. These two concepts that support each other are the two main elements that will ensure that food reaches every living thing cleanly and equally. Using a cyclical economy and circular food technology to make food sustainable will also mitigate the impact of the climate crisis. The climate crisis is a global problem that significantly affects food. Since it is a large-scale problem, it also affects the production of food and therefore its consumption. With the realization of the negative impact of the climate crisis on nutrition, suggestions for remedial solutions began to be developed. In particular, if legislative and policy changes are made, remedial agricultural practices will become mandatory on a legal scale, supporting the preservation of quality and accessibility of food.

Although there are many factors that trigger food waste, the two most basic reasons are population growth and industrialization. The global economy's directing individuals and producers to fast consumption causes 7.7 million tons of food to be wasted in a 1-year period (only in Turkey). Considering the people affected by hunger, it becomes clear why sustainable and circular food consumption should be preferred. When talking about food, it is necessary to mention waste management, new generation agricultural systems, sustainable packaging and transportation, and most importantly, food safety. Although nutrition appears as a single item, there are many problems that need to be considered, questioned and seen. In order to overcome these problems, it is also very important to develop national and international solutions, especially local studies, and to create space for cooperation.

Increasing food safety while reducing food waste and sharing food equally and fairly with all people is one of the important goals to be focused on today. Nutrition is not only a food but also a common heritage of the world. Any local solution that will be developed based on gender equality and gender mainstreaming and next generation sustainable food technology will reduce the amount of waste. In order to preserve food and benefit from real nutrients in the future, we must include our respect for nature in the circular effect.

Salvaged Meals

Foods and Cubes

Overview

The participants learn that the production, transportation and processing of different food creates different amounts of greenhouse gasses. To do this, they are given the task of assigning some food to the corresponding specified emission quantities. They discuss, guess and find out which food causes how many greenhouse gasses and why. By doing this, they learn what to look for if you want to eat in a climate-friendly way.

Group size & Target Group

Recommended for grades 7 – 13 (age 13 – 19) / up to 30 participants

Time - Duration

20 – 30 minutes

Materials & Preparation

- Foam cubes (alternatively cardboard boxes or similar) in the following dimensions:

Food	CO ₂ e emissions (CO ₂ e in per kg of food)	Cube volume (1g CO ₂ e = 3cm ³)	Cube side length
Fresh vegetables	150	450 cm ³	7,7 cm
Fresh fruits	450	1 350 cm ³	11,1 cm
Bread	750	2 250 cm ³	13,1 cm
Milk	950	2 850 cm ³	14,2 cm
Eggs	1 950	5 850 cm ³	18,0 cm
Beef	13 300	39 900 cm ³	34,2 cm



These data apply to Germany. In other countries, these can of course differ. Nevertheless, they give a good impression of what it is about!

Food replicas for: vegetables, fruits, bread, eggs, milk, beef (e.g. a toy cow). Of course, pictures can also be used.



Instructions how to run the workshop

The workshop-leader can introduce the topic with the following introduction:

Including that a lot of “changing landuse” is happening because of agriculture, rainforest for example gets destroyed to plant soya, about 25 % of all climate-emissions are related to food. If you would like to be more climate-friendly you can now decide to eat less or to eat differently.

We will now find out what to eat to be climate-friendly.

Do you have any idea, which foods are better for the climate and which are worse?

First ideas are exchanged about how our diet is contributing to climate change.

A further question: "Can you imagine why or where greenhouse gases are produced in the foods you have named?"

(In this way, an awareness is created that several factors play a role here, e.g. cultivation, animal husbandry, processing, packaging, transport, feeding of the animals).

After this exchange of ideas, the hands-on action follows:

The participants should now estimate how many climate-damaging gases are produced in the production of one kilogram of vegetables, fruit, bread, milk, eggs and beef.

The six cubes that represent the greenhouse gas emissions are now lined up according to size. A good place for this is for example in front of Mc Donalds or another place that is somehow related to meat.

The food replicas are then distributed to different people in the group. You are asked to assign your dummy food to a cube. The others can be asked to advise the person. When everything has been assigned, check the order and, if necessary, give tips if something is still wrong or ask questions that further help to find the right solution.

You can make a little “game” out of it:

“You assigned four foods correctly, but two are incorrect. Think again. The participants sort again.” You may then say: “Well, now four are wrong and two are right.” This turns the whole thing into a little brain teaser, which may distract a little from the topic, but mostly increases the attention.

Note: This works for the food in Germany, the calculation is based on:

-the local production and import share,

-the cultivation methods (open field / greenhouse) over all months of the year (seasonal / non-seasonal cultivation)

- The respective transport routes

(Source: Institute for Energy and Environmental Research Heidelberg (ifeu)

There may be discrepancies with you in your country.

The amount of greenhouse gas from the fruit e.g. mirrors the average of the fruit that is eaten in Germany in the year. Also proportionally banana, kiwi, apple ...

Apples from New Zealand, Chile, Germany ...

The following can be asked:

Why is the cow standing on the largest cube?

A cow that lives a year and thus produces methane for a year damages the climate like a car that is driving 18,000 km. That is because of the Methane that a cow produces while converting/digesting the eaten grass in the stomach. This gases do need to leave the cow, otherwise the cow would start to fly or explode (little joke)

Milk is also from the cow, but why is the cube for milk that much smaller than that for beef? (1 liter of milk weighs about 1 kg)

The following question can lead to the solution:

How many liters of milk does a cow give per day? Answer 15 - 40 liters. So if a cow gives e.g. 24 liters a day, she burps and farts methane for one hour for one liter of milk. The “meat” grows much more slowly. It takes about 1.5 days to produce one kilo of beef, i.e. it produces methane gas for 36 hours for one kilo of meat. Methane gas is 23 times more harmful to the climate than CO₂.



Why do you think vegetables are even more climate-friendly than fruit?

Aha, it's a lot because of the transport routes. Where do our vegetables come from and where do the fruits we eat come from? Vegetables are a lot produced in the region, Bananas for example come a long way.

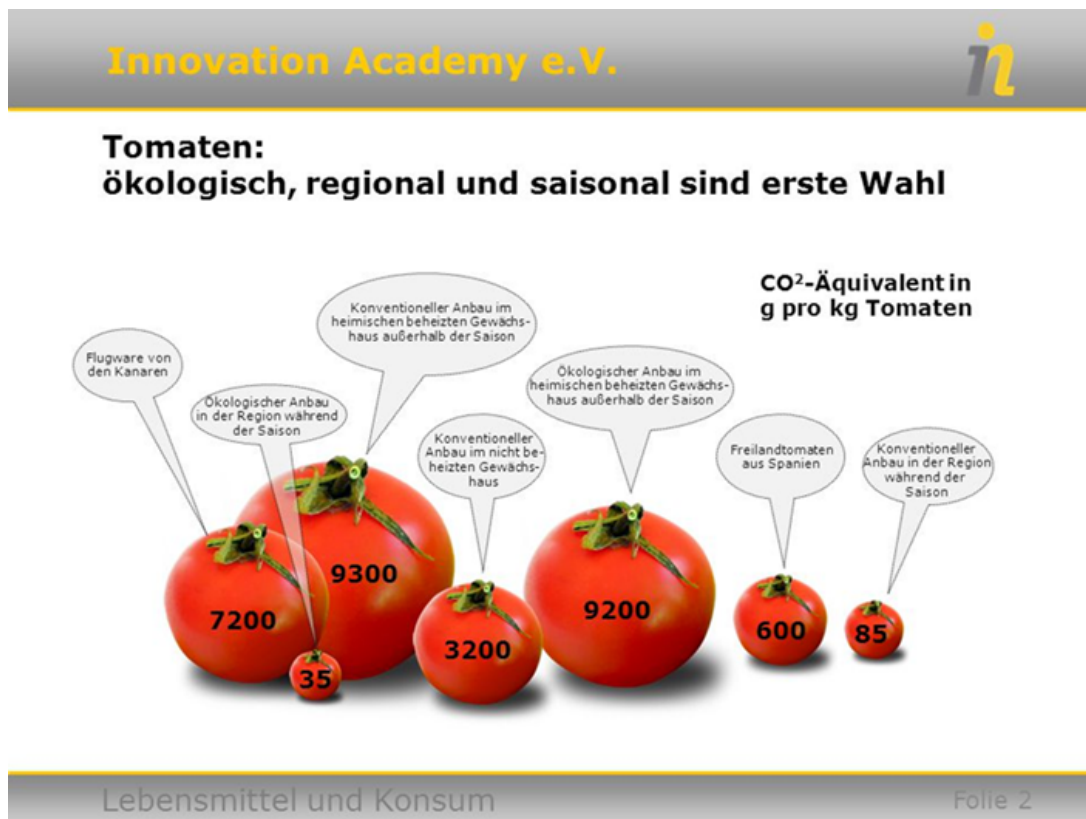
What is bread made of?

Right, from grain and grain also grows here in the region, just like vegetables. Why is bread still relatively harmful to the climate? Because we have to bake it! How hot is it in an oven? Most types of bread are baked at a temperature of 200 to 270 degrees for about 50 minutes. That consumes a lot of energy, mostly electricity. And electricity production (keyword: coal-fired power plants) is one of the biggest sources of greenhouse gasses.

While corrections are being made, information is also provided at the same time.

Here again summarized:

- Vegetables have a slightly better carbon footprint than fruit because they are often sourced regionally, meaning that there are fewer transport routes on average. In the case of tropical fruits such as pineapple, mango, banana, this is of course completely different). Big differences in the vegetable carbon footprint result from different cultivation methods: Sun-ripened tomatoes, for example, have a much better CO₂ balance than tomatoes that ripen in artificially heated greenhouses. Here's a comparison:



- 7200 g CO₂ for one kg of tomato coming by airplane from the Canarian Islands
- 35 g CO₂ for one kg of tomato regional, seasonal and eco
- 9300 g in a heated greenhouses in winter in the region
- 9200 g in a heated greenhouses in winter in the region, but also eco
- 3200 g in a greenhouses in spring/summer in the region
- 600 g open-air grown tomatoes from Spain
- 85 g open-air tomatoes from the Region during Tomato-Season

- In the case of bread, the CO₂ emissions are mainly caused by the baking time in the oven, which requires a lot of energy. Often 50 minutes at 200 - 270 degrees.
- Keeping chickens in big stables is very energy-intensive, and chicken-excrement also release a lot of methane. Factory-farmed chickens eat soy, corn and grain. Much of that is imported from Brazil to Germany. The soy often grows where the rainforest once stood. Eggs from your neighbours' chicken, which are fed with kitchen waste, are of course much more climate-friendly than those from factory farming.

(-> Free-range farming is more climate-friendly)

- Beef and milk: The ruminating cattle produce high methane emissions (burping and farting), as well as nitrogen oxides from their manure. Here it makes sense to explain that in addition to CO₂, other greenhouse gases contribute to climate change, in particular methane and nitrous oxide from animal husbandry and fertilization of the fields. **A cow that lives a year and thus produces methane for a year damages the climate like a car that has driven 18,000 km.**
- Milk has a better carbon footprint than meat because the cow produces a litre of milk much faster than a kilo of meat.

In the end of the workshop it should be clear what has a bigger or smaller climate footprint:

- Transportation
- Way of production
- In season or not
- Processed food or not
- Fresh or frozen

A few more facts:

Vegetables grown in a heated greenhouse in winter cause an average of 30 times more greenhouse gases than vegetables in the open air.

Butter is 8 times more harmful to the climate than margarine.

Animal products cause 70% of the greenhouse gases in the diet, although they only make up 10% of the diet in Germany.

Conceivable conclusion:

Approx. 25 - 30% of the global greenhouse gases caused by humans are due to food, agriculture and the destruction of forests that have to yield for fields.

If you want to do something good for the climate, you do not need to eat less, just maybe something different more often.

NATURE EDUCATION for CHILDREN and YOUTH

Introduction to Nature Education

It is important to have sustainable nature education for children and youth. While giving information about nature it is best to avoid using an academic language. Conventional education methods which are often restrictive should be left behind and more experiential learning spaces should be created. Focusing on the experiences in these kinds of educational activities would ease the process of “getting to know” nature and would offer a more valuable learning experience.

Only focusing on one side of the subject would be less effective in awareness raising. Didactic methods are not enough to get introduced to and comprehend topics such as: ecosystems, environmental sciences, environmental rights, animal behaviors, climate and all the other aspects of nature. To offer the opportunity to meet nature face to face and firsthand also helps the learners appreciate the importance of nature.

When the benefits of introducing children and young people to nature education is seen the value of it becomes apparent. For example, in activities done for the sustainable development goals the involvement of children and young people are crucial. Both as the target group and the implementers their ideas and suggestions for resolving issues regarding nature are needed by “nature” itself.

The participation of children and young people to activities regarding the climate crisis has helped to raise awareness in many different target groups. Also the multiplying effect of peer learning should not be ignored.

Every experience had with nature will support ethical and sustainable life practices in the learners. Educational activities done with suitable methods will reveal the importance of spending time with nature. Therefore it should be said that it is significant to have children and young people’s involvement in decision making processes. The fact that movements such as Fridays for Future are on the rise and globally active is due to the involvement of the age group of 15 to 18.

While coming up with solutions to issues that may arise the right to speak does not belong to a certain age group. Nature is related to every living being in the world and for this reason involving ageism in decision making processes is wrong. Every nature education created and conducted will empower children and young people. Children and young people being empowered by nature education will help them advocate more and better for their rights to live in a greener and fairer world and help everyone realize that they are a part of the solution.

Why is it good to take kids to nature?

Children love nature. Really, it is true! Also it often does not look like it.

If you ask a child while watching TV, "Do you want to come with me to the forest?", she/he will probably say "no, not really". It is often not easy to get them into nature, but if they are there, they usually enjoy it a lot and it might be difficult also to get them out of nature.

(The following probably surprising numbers are the result of a scientific research, done in Germany) 80 % of all children asked in Germany like to spend time in nature. For 83 % of all asked children it is relaxing to be in nature. 62 % of the children even think that nature is the best place to be at, if you would like to relax. And 42 % of the children think nature is the best place to be at, if you would like to think about something important.

These results show us, it is not just a goal to go with kids into nature because you want to make them more motivated to protect the environment and to inform them more about nature. Time in nature is good for your health and soul, to get a rest from hectic, noise and a sensory overload.

A good question is: Why is it so relaxing to be in nature?

The philosopher Friedrich Nietzsche found a good answer already a long time ago: "We like to be in nature so much - because nature does not have any opinion about us." If you enter your school-class, if you meet friends, if you come home, people make up their mind about you, how you are dressed, how you might feel etc. If you walk into a forest, no tree pays attention to you! You can feel free. You can behave as you want and nobody cares. Try to behave silly in a bus or school-class. You will understand the difference.

There is a second probably more important reason: Psychologists say. "People wish to have changes in their life. They do not like to get bored. They do not like to listen to the same song again and again. And they do not like it when each weekend is like the others. On the other hand if everything always changes it is stressful. That is why we also need routine in our life to feel good. These are opposite wishes. A combination of both at the same time would be perfect for us.

Nature gives us the opportunity to have both at the same time.

That is why it is so relaxing to be in nature. How does nature do this? Imagine an old tree you do know. It is always the same tree and in each season it looks different. If you go there again and again, because it is maybe your favorite tree, it is always the same tree but each time you will experience something different. One time it is windy and you can hear the leaves rustle, or maybe a bird is singing, or the leaves have changed their color since your last visit. Each time you will experience something different under the same tree. This combination is what relaxes us in nature.

Some other thinkers even believe time in nature makes better persons out of us: The old philosopher Emanuel Kant, born 1724, even wrote down: „By absorption into nature the development of the morals of human beings can be raised.”

A little easier to understand is, what the Dakota-Indian Luther Standing Bear (1868 – 1939) said: "The old Dakota knew that the heart of a person, who lost the connection to nature, will become harsh. They knew that people who are losing respect for everything that is alive and everything that grows, will also lose respect for people / human beings. That is why the influence of nature, which makes young people tactful, is part of our education."

Go and take kids to nature!!

How to create a good nature program?

How to create a good program, if you plan to go with a group of people to nature

If you create a program for people, especially children, imagine your workshop like a movie. Also your activity in nature needs a dramaturgy. It needs highlights, relaxing and thoughtful moments and finally a happy end. Maybe the following structure is interesting for you.

Stage 1: Awaken Enthusiasm by your participants

- through a game
- a story
- a surprising beginning of the activity

Stage 2: Focus Attention & getting into the topic To the area where we are at or/and the topic

- games
- a story
- a meditation
- focusing on something and connecting it to a story
- a song
- a poem

Stage 3: Direct Experience

Don't talk too much; don't try to explain too much in advance. Make it possible that the participants do have a direct experience in and with nature. Try to arrange the activities that way so that the participants...

- know what to do
- are getting surprised
- are becoming active by them self
- are becoming creative
- are from time to time team-working with others

Stage 4: Share Inspiration & Experiences

Also if everybody did the same at the same place and at the same time, everybody is gathering different experiences, impressions and thoughts, and is noticing different things in nature. Come together from time to time, sit in a circle under a nice tree for example and let the participants share their experiences and thoughts with each other. Often it happens that participants just understand and notice their experiences & emotions, while sharing them with others.

Stage 5: Putting the experience into a bigger frame

Explain how things are connected in an ecosystem, how human beings are influencing the balance of nature. If the participants become interested, you also have the chance to explain more complex things in a theoretical way.

What are our goals? What do we want to reach while taking kids to nature?

Our goals are for example:

- that people do know more about nature
- that they do know more about how things are related to each other in nature
- that they get an understanding how human beings are influencing nature
- that they understand that nature is important/valuable for human beings and our well-being today and in future
- that nature is valuable because of itself not just because it is useful for us
- that people are getting emotionally connected to nature
- that they become more interested in nature
- that they are having a good time in nature and afterwards good memories about their time in nature which helps to create a positive attitude towards nature
- that especially kids spend some time in nature, without Computers, TV and Gameboys, enjoying fresh air, the weather
- that people are spending time at a quiet and peaceful place, relaxing
- that kids are losing their fear against deep forests, spiders or other animals
- that people like to go again into the nature
- that people get to know more about your home area
- to have fun
- to become curious (in general and about specific topics)

Create a magic moment

“There is a time in the age between 5-12, when an impression, probably just a short one for some seconds, can stay forever in the heart of the person”

Try to create a happy impression during your workshop in nature for your participants. I do like to call them the magic moments, the highlights during such an activity, connected with your main message

MEET A TREE

Overview

This is a simple exercise to experience that every tree is different and unique. The participants do this exercise in pairs of two. One person is blindfolded or closing his eyes and led by the partner to a tree. The aim is to get to know the tree just with the hands and later to find it again with the eyes.

Group size & Target Group

From 6 – 80 years, group size does not matter. The exercise is always done in pairs.



Time - Duration

20 minutes, somewhere in nature, where you do have a lot of trees, if possible with trees of different shapes and kinds.

Material & Preparation

No material and preparation is needed, but if you can organize Blindfolds, it would be good and especially for children easier to fulfill the task. For kids it is not easy to keep eyes closed all the time.

Instructions how to run the workshop

The goal is to raise empathy for nature, to motivate observing nature with different senses. It is also about trusting each other while playing the game in pairs of two.

One is blindfolding it's Partner and leading him (after turning him around a few times so he/she loses a bit the orientation) through the forest to any tree that he/she chooses. (How far the distance is should also depend on the age of the blinded participant and the number of trees around. It should not be too difficult to find the right tree. For all, except for very young children, a distance of 15 meters is not too far.) After arrival at the chosen tree the blind-folded person is now getting to know his tree with the hands maybe for 2 or 3 minutes: You can also help the "blind" participant to explore his tree and to feel its uniqueness. For that specific suggestions are best. Instead of saying "Explore your tree," be specific. For example: "Is this tree still alive? Can you put your arms around it? Is the tree older than you are, what do you think? Can you find plants growing on it, like moss?" Also it is possible to announce the direction of extraordinary signs: "Feel some signs nearby the roots...above your head...!" When your partner finished exploring, lead him back to where you began, but take an indirect route. Turn him a few times around before taking away the blindfold. Now, remove the blindfold and let the participant try to find the tree with his eyes open. Suddenly, as he searches for his tree, the forest becomes a collection of individual trees. Each one looks different and the participant is now looking at all the trees to find his tree. After the participant found his/her tree you change and now the other one is the blinded person.

Listen to Your Surrounding

Overview

We are surrounded by sounds. But normally we hardly pay attention to them. This exercise makes us aware of how much and how many different sounds we hear. Depending on the place, these can be more or less beautiful and pleasant. It is important to talk about what we have heard afterwards.



Group size & Target Group

From 4 – 80 years, group size does not matter.

Time - Duration

10 minutes, somewhere in nature, or if you do it more than one time in different surroundings like in the city, near a river ...

Material & Preparation

No material and preparation is needed

Instructions how to run the workshop

The participants lie down on their backs (or sit or stand separately) and put their both fists up in the air. They close their eyes for “to hear better”. Now they count all new noises by extending one finger. When they have heard 10 different noises, they may open their eyes, waiting for the others. There are some variations: Can you count until ten without hearing a bird? Catch only natural sounds ...

The following questions are suitable for the subsequent discussion:

- Which sound was the most beautiful one?
- Which one did you not like?
- Was there a sound that you did not know what it was?
- Did you hear a sound for the first time in your life?

Bat & Moth

Overview

This is a very funny and energetic game that usually all children love to play. It explains in an unforgettable way how bats hunt at night by using their ultrasound.

Group size & Target Group

10 – 16 participants, that is the best size, age from 6 to up

Time – Duration

Minimum 15 minutes, but most participants love it and they usually do not like to stop.

Material & Preparation

one blindfold, no preparation

Instructions how to run the workshop

When the group has formed a circle of around 3 - 4 meter in diameter, choose a participant to be a bat. Then let him/her come to the center of the circle to be blindfolded, because



bats orient while hunting with their ears, not with their eyes. Choose two or three other participants to be the moths and ask them also to come to the center of the circle.

The hunt begins and the bat tries to catch the moths. Whenever the bat calls out “Bat!” the moths has to answer as fast as possible “Moth!”

Explain to the participants: “Every time the bat shouts 'Bat!' It's like his radar/ Ultrasound, searching for something to hunt, for example a moth. The ultrasound-signal that hits a moth reflects the sound. That way the bat knows where the moth is. The return signal is the word 'Moth!' that the moths shout. Now the bat knows moths are near - and he's ready to hunt! – to touch the moths with his hands. The moths, who can see, see the bat coming and try to escape from the bat, but just inside of the circle that is built by the other participants. The bat tracks down and tags the moths by listening to their responses and making fast steps. Because the moths are moving all the time the bat needs to shout „Bat“ again and again, to orient. It takes good concentration to be a successful bat. The circle built by the kids is the hunting area. If a moth is touched it is out.

This way the children learn how bats hunt and they do have a lot of fun playing it.

Eco-System-Net

Overview

This game explains in an easy way how an ecosystem works and that in an ecosystem everything is connected to each other, mainly through eat or be eaten.

Group size & Target Group

6 – 14 participants, that is the best size, age from age 8 to up.

Time – Duration

15 minutes

Material & Preparation

A Woolen Owl

Instructions how to run the workshop

You need to build a circle and one of you gets the ball of wool.

How the game works: The first person who holds the ball of wool in his hands needs to decide what animal or plant he or she is and whom he/she eats or by whom he/she is eaten. Like “I am a small bird and I am eating a worm”. Now this first participant needs to throw the ball of wool, by keeping the end of the wool, to one other participant by saying “I'm a little



bird. You are a worm and I am eating you". This chosen worm is catching the wool-ball. Now he/she needs to decide whom the worm is eating or by whom the worm is also eaten. For example "I am a worm and I am eating a leaf", throwing now the wool-ball to the chosen "leaf", by holding one piece of the rope until everybody is part of it and everybody is a plant or an animal holding the rope together. Now it should look like a web where everybody is connected directly through the rope with two other participants of this game. It now looks like an eco-system-net. Now in our game one of the animals or plants disappears (become extinct). To show that this affects the other animals the chosen animal or plant should pull the rope a little bit. That should show: If you are not part of the ecosystem anymore, it affects the ones you eat or the ones who eat you. The two who are directly connected with the one who pulls, feel through the rope that you are pulling at it. If they feel that they are affected, they also need to pull what is again affecting others. In the end every participant in the circle is pulling the wool-rope. This demonstrates, everybody is connected in an ecosystem.

That is why it is important to protect everybody in nature, because everybody is needed to keep the ecosystem stable. If your participants are older or if your program is dedicated to a specific ecosystem, you can also appoint an ecosystem like "forest" and that all the participants (chosen plants and animals) should belong to this ecosystem.

Camera-Game

Overview

This simple exercise is designed to get participants to look at nature in detail and pay more attention. At the same time it is a good exercise to build trust between the two partners who are doing this exercise together.

Group size & Target Group

Pairs of two, age 6 and up, participants under eight years should be in a pair with an older person.

Time – Duration

30 minutes

Material & Preparation

No material is needed, if blindfolds are available, they can be used



Instructions how to run the workshop

One player takes the role of a photographer, and the partner plays the camera. The photographer guides the camera, who keeps his eyes closed, on a search for beautiful and interesting pictures. When the photographer sees something he would like to take a photo of, he points the camera's lens (eyes of the other participant) at it, framing the object he wants to "shoot." Then he presses carefully the shutter button (which is the shoulder or the head of the camera) to open the lens. After 3 - 5 seconds the photographer should press the

“button” again. That means the camera needs to close its eyes again. While having the eyes open for this short time the camera is not allowed to move his head to look around, just straight like set up by the photographer. Now the photographer moves on together with his blind camera to search for the next nice place to take another picture. It's important that the camera keeps his eyes closed between the pictures, so that the 3 to 5 second “exposure” will have the impact of surprise. Encourage the photographers to be creative in choosing and framing the pictures. Tell them, “You can make stunning photographs by taking shots from unusual angles and perspectives. For example, you can both lie down under a tree and take your picture looking upward, or you can put your camera very close to a tree's bark or some leaves. Try looking down into a flower. Because the Camera Game uses nature experiences instead of verbal explanations, young children can participate just as fully as adults. It's very touching to watch six-year-olds guide their parents or grandparents, taking pictures and sharing their delight in natural things. It's also very important to encourage the photographers and cameras to talk only when it's unavoidable. Tell the photographers they'll have about 10 minutes to take pictures, and then they'll change roles. It works well to tell the photographers to take a certain number of pictures (three to five are fine), then to change places with their partners. With these rules, everyone will finish at about the same time. You should play the game also in that way, that the "camera" has to find with open eyes all the spots he pictured. After everyone has played both roles, there is also the possibility to draw the photos by remembering what was seen. The goal of the game is to give the players a more lively appreciation of nature's beauty.

Guessing Animals

Overview

A simple guessing game where you have to think about animals and find out which animal is meant by asking good questions. This way the participants learn more about animals.

Group size & Target Group

From 6 and up, the exercise is always done in pairs.

Time - Duration

10 minutes



Material & Preparation

Small papers with names of animals on it (as many as participants), maybe Adhesive strips, if you would like to stick the paper with the animals-names on the backs of the participants

Instructions how to run the workshop

Before the game starts the small pieces of paper should be prepared. On each piece of paper must stand a type of animal, for example: fish, cow, cat. The animals should be different and not too difficult. Now every child gets his or her own piece of paper/animal. But nobody should see what kind of animal they have on their own paper. Therefore the small papers must be taped on the back of every participant. After that every participant has to find a partner, because it's a partner task. Now they have to find out by asking their partner, which animal sticks on her back. The questions may only be asked in such a way that the partner can only answer "yes" or "no". For example: Can I fly? Do I have four legs? Do I live in the water? That way they come closer and closer and finally they find out which animal they are.

P.S. Drawings by Johanna Lohrengel

Nature Connected Youth

Background

Nature Connected Youth was a digital youth exchange project that took place online among young people aged 18 to 27 years old from Germany and Turkey, aiming to develop intercultural learning and dialogue by using nature observation and art as a method and funded by Deutsch- Türkische Jugendbrücke and implemented by Neden Yaşam Boyu Öğrenme Derneği¹⁴ The program was based on thematic activities such as noticing; bird watching, tree watching & animal tracing; place making; expressing oneself with haiku; and mapping. The following four methods that you'll find in this booklet are taken from the "Activity Booklet"¹⁵ of the Nature Connected Youth project. All the methods have been designed by Burcu Meltem Arık and Banu Binbaşaran for Nature Connected Youth Project The following methods are also presented and shared by the Nature Connected Youth project participants in our workshops.

Make a Journal Sample

Overview

The method is about nature journalism, recycling and nature observation. You may use this method to realize how to upcycle used materials and to improve creativity.

Group size & Target Group

8-10 participants would be perfect. If the facilitator feels comfortable, she can have a bigger group. Suitable for young people between 18 to 27

Time – Duration

¹⁴ <https://neden.org.tr>

¹⁵ https://drive.google.com/file/d/1QvENUA4_1tAJcuyD55so8lkiTih06jG1/view

- 20 min. discussion about what is nature observation, why to observe the nature, and how to implement journaling
- 30 min. making nature journal using recycling or at-hand papers

Material & Preparation

Pencil, scissor, binding thread (any kind of thread works), papers and thick papers for cover

Instructions how to run the workshop

Preparation

1. Share the “Nature Journal Template” with participants to set an example.
2. Inform participants that they will need a bunch of wasted papers and other materials for this activity.
3. Prepare a padlet page to submit photos.

Instruction

1. Fold all the papers in half and cut them to the same size as the cover page.
2. Put the pages inside the cover page.
3. Punch two holes through the cover and all the pages and stitch them with a thread. Or you can simply staple them all.
4. Use any art supplies to decorate the cover of your journal.
5. Nature journal template simply shows the information you will put in the nature journal.

Debriefing & Evaluation

1. How did you find this experience?
2. Which part of the activity was most interesting for you?
3. What other used materials could you use for upcycling?

Zoom In Zoom Out

Overview

The method is about nature observation and drawing. You may use this method to write descriptively about the natural surroundings, to observe and note small details that make up the environment and to realize the changes in the natural surroundings.

Group size & Target Group

8-10 participants would be perfect. If the facilitator feels comfortable, she can have a bigger group. Suitable for young people between 18 to 27

Time – Duration

30 minutes

Material & Preparation

Nature journal, pencil

Instructions how to run the workshop

Preparation:

Prepare a padlet¹⁶ page to share the recordings.

Instruction:

1. Find a calm spot in nature. It can be a nearby forest, urban park or even your backyard. Stand at a distance from a plant where you can see it in its habitat. Observe it for 5 minutes.
2. In the middle of your page draw an image of the plant that is exactly life size. If the plant is larger than your page, only draw part of it. Add some written notes.
3. Then choose some part of the plant that you find interesting and draw a little circle around that part of your drawing. At the side of the paper, draw a larger circle and draw a magnified view of that same area showing details that are too small to be shown in the life size picture. Include written notes.
4. Finally, take a few steps back from the plant and make a final sketch, this time zoomed out to take in the whole plant and some of its environment. Use both, writing and drawing.

Noticing

Overview

The method is about nature observation and peer learning, it is providing a multisited, multispecies, multisensorial experience. You may use this method to practice “arts of noticing” to navigate the increasingly uncertain presents we inhabit, to notice something is also to realize that it has unsettled your worldview, the way you understand and inhabit the world, at least in some small (if not large) way, to perceive secret possibilities even in ruin sites

Group size & Target Group

8-10 participants would be perfect. If the facilitator feels comfortable, she can have a bigger group. Suitable for Young people between 18 to 27.

Time – Duration

We do “Sensory Walking”, “Sensory Sitting Still” and “Sensory Peer Meeting”.

- Sensory Walking (~ 40 min)
- Sensory Sitting Still (~ 30 min)
- Sensory Peer Meeting (~ 40 min)
- Experience Sharing in Groups (~ 45 min)

Material & Preparation

Journal, pencil, padlet

Instructions how to run the workshop**STEPS - SENSORY WALKING**

¹⁶ <https://tr.padlet.com/>

1. Take your nature journal with you.
2. Walk around your neighborhood/ at a park nearby/at a natural site.
3. While walking observe your surroundings and complete the “Sensory Walking” form

STEPS - SITTING STILL

4. Find a peaceful spot. Sit comfortably.
5. Observe silently for 30 minutes.
6. Take your notes on your nature journal.
7. Form is here

STEPS- PEER MEETING

8. Work in pairs.
9. Each of you will explain your experience.
10. Your pair will draw what you observed & experienced.
11. You will explain, she/he will listen & draw.
12. When you both finish drawing, show your drawings with each other.
13. UPLOAD photographs of your drawings to padlet

Meeting with Non-human Neighbors

Overview

The method is about nature observation, peer learning and drawing. You may use this method to explore nature and to strengthen the ties between nature, other living beings and humans.

Group size & Target Group

8-10 participants would be perfect. If the facilitator feels comfortable, she can have a bigger group. Suitable for young people between 18 to 27.

Time – Duration

- Meet a Tree (~ 15 min)
- Traces and Signs of Animals (~ 30 min)
- Bioblitz! Birds and Trees (~ 30 min)
- Make a Field Guide (~ 40 min)
- Field Guide Presentations (~ 10 min)
- Experience Sharing (~ 40 min)

Material & Preparation

Journal, Pencil

Instructions how to run the workshop

STEPS- Meet a Tree

- Select a tree to meet closer.
- Draw a map that allows others to locate your tree.
- Observe and write about the tree in your journal.
 - How does it look?
 - Is it healthy or does it appear dead or damaged?
 - Are all the branches whole or are there some missing sections?
- Identify the type of tree if possible.
- Sketch the tree from different perspectives.
- Are there any animals on or near the tree? Are there any signs of animal use on the tree or in the general area? If yes, what?
- What does the natural area surrounding it look like?
- Take a picture of your nature journal page and upload the photo to the padlet.

STEPS- Traces and Signs of Animals

1. Walk around your neighborhood / at a park nearby/at a natural site.
2. Look for the animal traces and signs.
3. Record your observations to your Nature Journal.

Bioblitz:

a fun activity that helps you find and understand the biodiversity near you.

- It is done over a set period of time (e.g. 1 day) in a specific area (e.g. your backyard) to find, identify, and record all of the organisms that live within the area.
- It can provide you with a “snapshot” of the biodiversity found in your area.

Today we will make our very own Bioblitz!

STEPS- Bioblitz! Birds and Trees

1. Find a natural place. It can be a nearby forest, urban park or even your backyard.
2. You have only 40 minutes to observe as much species as possible.
3. You can use online identification apps to identify the species. You can take pictures to share with your WhatsApp groups.
4. Record as much details as possible so that you get help from your group members for identification.
5. Try to identify at least 2 species of birds and 2 species of trees!
6. Take your notes on your nature journal.

STEPS- Make a Field Guide

1. Work in groups.
2. As a group you will make a Field guide of birds and trees.
3. Share your observations from the Bioblitz! Birds and Trees with your group. In group review your work, and complete all the details necessary to make a field guide.

CLIMATE CHANGE AND CLIMATE JUSTICE

[Introduction to Climate Change and Climate Justice](#)

In its simplest form climate change describes the situation of greenhouse gasses increasing in the atmosphere and thus changing the climate conditions. The changing of climate conditions does not only create regional problems, it creates interconnected and interrelated global problems. It shouldn't be assumed that these changes only affect the air temperature. Climate change causes; the air temperature to rise, intense air and weather events to happen, deterioration of cultivated lands, deforestation, and the endangerment of biological diversity.

In relation to climate change new terms have also emerged. The events and conditions first coined as climate change are later going to be referred to as "climate crisis" due to the severity of its negative effects on the environment. Then it is followed by the term "Climate Justice ". Climate justice (or injustice) is an important field of study that is both important not only for individuals but for states and governments.

Climate justice is used to describe the situation in which the countries or regions that contribute to climate change the least are suffering the worst effects of it. For example the continent of Africa, while being one of the least contributors to climate change is also one of the most affected by climate change. The increase in heat waves results in faster desertification. These problems which cause drought also create the conditions for lower agricultural productivity and soil pollution. These determining factors aforementioned cause almost irreversible damages to water resources.

Climate "injustice" starts at this very point. Climate change is a complex problem with many human created causes and everyday reversing the damages caused by climate change gets harder and harder. In this condition of injustice, the reality of us as individuals not having a personal fault does not completely leave us out of the complicity if we ever don't change our preferences regarding climate and how we live. Even though there are steps that could be taken by us individuals, in order for climate justice to be met, sustainability comes from the changes and enforcements made by states and governments.

It is important to point out that the wealthier nations are what create this situation of climate injustice. Climate injustice is a result of fast consumption, gender inequality and discrimination. In order to reverse the negative effects and damages the world has sustained it is not enough to only act for ecological changes. Every solution offered against every kinds of discrimination is also a conscious act against climate injustice.

Climate Justice

Overview

Using the examples of Brazil, Bangladesh, Madagascar, Germany, Canada and the United Arab Emirates, the focus is on the extent to which these countries are responsible to global warming, how people live there on average and how this lifestyle is influencing our world-climate. The participants will also learn about the consequences the climate change will have for people in these countries in the future. The aim is to show how unequally people cause CO2 emissions and how unequally they are going to suffer from it.

The aim of this workshop is to convey

- that the people who suffer most from global warming and will suffer most in the future are those who contribute little to global warming through their own lifestyle.
- that the industrialized countries are the main cause of global warming and therefore have the main responsibility to drastically reduce their own CO2 emissions. (80% of all man-made greenhouse gasses are emitted in the rich industrialized countries).
- that climate change is a global problem, requires global solidarity and is a question of responsibility and justice.

Group size & Target Group

recommended for grades 7 – 13 (age 13 – 19) / up to 30 participants

Time - Duration

30 - 45 minutes

Material & Preparation

Six country outlines, six clouds out of cardboard, six short country infos (Download at)

Instructions how to run the workshop

- 1. The first task for the participants is to guess how many people live in the six selected countries.**

For this purpose, sheets of foil/paper are distributed on the floor, showing the outlines of the six selected countries to scale. If time allows and the group is motivated, they can also have the students guess which country belongs to which outline.

Then the participants are asked to match up how they think this represents the population of the six very different sized countries. For example 30 participants will now divide between the six countries how they think that it represents the populations of these countries.

The participants probably won't get it quite right, as no one knows exactly how many people live in each of the six countries and this then has to be converted to the 25-30 participants.

Now it is time to correct it a little.

"You are too few, two more have to go here, there is one too many ...".

This table helps you to divide the participants correctly:

Country	Population	[%]	20 participants	25 part.	30 part.
Canada	37.411.038	7,0%	1,4	1,8	2,1
Germany	83.517.046	15,7%	3,1	3,9	4,7
Madagascar	26.969.306	5,1%	1,0	1,3	1,5
Bangladesh	163.046.173	30,7%	6,1	7,7	9,2
Brasil	211.049.519	39,7%	7,9	9,9	11,9
VAE	9.770.526	1,8%	0,4	0,5	0,6
In total	531.763.608				

If you include your own country the participants might identify more with the workshop.

2. Who is producing in what country how much climate-gasses?

After the participants have distributed themselves among the countries in such a way that it is proportionate, the "inhabitants" of each country, the first country-group gets its cardboard cloud that symbolizes the amount of CO₂ that is produced on average per person and year in that country. Symbols on the clouds illustrate the average lifestyle in the respective country. While the clouds are handed over one after the other to the country-groups, something is briefly said about it in a way that is clearly audible to all:

The texts for the CO₂ Clouds for the Global Climate Justice Workshop

While the German group receives their cloud:

You in Germany

This is your cloud, it symbolizes the average emission of climate gasses in your country per person, per year. (Some of you cause a bigger one, some a smaller one).

"Every second person in Germany owns a car. 87% of you have already taken a flight. You eat on an average of approximately 60 kg of meat per year. Every German household owns an average of 10,000 items, 100 years ago it was just 180 per family.¹⁷

This lifestyle causes an average of 10.4 tons of CO₂ per year. In fact, climate change is already making itself noticeable in Germany. There are more frequent floods and hot summers. Forests are becoming diseased because it is too dry in the summer, and agricultural output is also already declining. Spring now starts 15 days earlier than 50 years ago, but you are a rich country, you can cope with it better than poor countries are able to."

The next cloud goes to Madagascar.

"This is your personal cloud. Adults in your country, Madagascar, earn an average of €36¹⁸ a month. You probably don't have a car. Nor do you have a computer or a smartphone. You probably don't have electricity either, because just one in five of you in Madagascar has electricity at home. Per capita, you produce an average of just 0.2 tons of CO₂ per year. So you are not to blame for global warming. But you are already suffering from it. Storms, heavy rains, floods and droughts are no longer uncommon in your country. If your crops are destroyed, no insurance will help you, and your government has little money to support you."

You live in the United Arab Emirates.

"The oil in your soil makes the Emirates one of the richest countries in the world. You are not one of the 2.7 million Asian guest workers in your country, who do 95% of all the work and are paid very little for it. And thereby contribute little to the total emission consumption. Overall, your cloud is quite large: Because of the heat, your air conditioners are running at full speed, you are a rich country and can afford many things, such as large and heavy cars. All in all, you emit 23.2 tons of CO₂ per person. This is therefore your cloud.

¹⁷ Kern, Stefan (2014): Wie viel ist genug? Online unter: https://www.mz.de/panorama/magazin_artikel-Magazin-Wie-viel-ist-genug-__arid.20959.html

¹⁸ Länderdaten.Info (Hg.) (o.J.): Durchschnittliches Einkommen weltweit. Online unter: <https://www.laenderdaten.info/durchschnittseinkommen.php>

Your cities are threatened by sea level rise because almost all of you live on the coast. If the global temperature rises by another 3 °C, which is to be feared, heat waves of up to 60 °C await you. In the summer, you will hardly be able to go outside, because this temperature is life-threatening.

Brazilians, this is your cloud.

"In hardly any other country on earth is the gap between rich and poor as wide as here in Brazil. One in four Brazilians lives in great poverty. The cloud of the poor is much smaller than this one. But then there are the rich, whose cloud is much larger. The average result is 2.33 tons of CO₂ per person.

You are known for your magnificent rainforests. They call the Amazon forest the air conditioner of the world. The forest is getting smaller and smaller, which is due to the fact that a lot of trees are cut down or burned. In the last ten years, it has released around 20 percent more CO₂ into the atmosphere than it has absorbed from it. It is also becoming drier and drier there, so many trees no longer grow as quickly and therefore absorb less CO₂.

The largest wetland on earth is also located in Brazil. It is called the Pantanal and is affected by great droughts, which repeatedly lead to massive wildfires. In the largest wetland in the world, it frequently burns. These are already the effects of climate change."

You guys in Bangladesh are really unlucky.

"Due to sea level rise, 20% of your country will probably be under water in 30 years. 25-30 million people will then have lost their homes. That's one in five people in your country. How many of you would be here? On average, you earn 144 € per month. That means that if you have to leave, you won't have enough money to buy land somewhere else. Half of you are farmers and you need land to live. And it will get even tighter in Bangladesh if you have to move together. Bangladesh is already one of the most densely populated countries in the world. For you in Bangladesh, climate change is a disaster. But you don't contribute much at all to this problem, with an average of 0.67 tons of CO₂ per person per year."^{19,20}

Here's the CO₂ cloud for you in Canada.

"Sixty-six percent of you own your own house, and many others rent one. That's comfortable living. But, heating those houses especially in the long cold Canadian winters costs much more energy than getting apartments in apartment buildings warm. 1000 Canadians* share an average of 685 cars. For every three people in Canada, two have their own car, including children. You probably drive your cars a lot. Bad for the climate. Canadians eat an average of 62 kg of meat a year, which also contributes to climate emissions. So all in all, you average 15.87 tons of CO₂ per person per year."

¹⁹ Südwind Magazin (Hg.) (2016): Warum der Klimawandel für Bangladesch so gefährlich ist. Online unter: <https://www.suedwind-magazin.at/warum-der-klimawandel-fuer-bangladesch-so-gefaehrlich-ist/>

²⁰ Butzengeiger, Sonja; Horstmann, Britta (2014): Meeresspiegelanstieg in Bangladesch und den Niederlanden. Ein Phänomen, verschiedene Konsequenzen. Online unter: <https://germanwatch.org/sites/germanwatch.org/files/publication/3346.pdf>

(You can also show the back of the cloud first, without the symbols on the front side. This opens up the possibility to ask: "Watching the size of the cloud, what do you think your lifestyle in Brazil etc. looks like?" After a few guesses from the participants, you can turn the cloud around and can now say something about the lifestyle based on the symbols painted on it. See text suggestions above)

(Another variant is, after the participants have divided up correctly into the country-groups, to guess which cloud represents the people in which country. The clouds can be placed next to each other for comparison of the huge size-differences and a better overview).

The aim is for the participants to identify more strongly with the topic and to be able to empathize with the global injustice when, for example, the neighboring group in this workshop gets a much larger cloud, i.e. lives much "better". And if you are in this activity „from“ Bangladesh, you will understand that you, with your lifestyle, are not the reason for global warming, but you will suffer a lot from it. That is the injustice!

3. Discussion

Now it is about getting the participants to discuss with each other and to take the position that represents the people they are representing.

The start of the discussion could look like this:

"So, you in Bangladesh, you hardly produce any greenhouse gasses, from 1000 just four are owning a car for example. But you are among the people who will suffer the most from climate change. In 30 years most likely 20 % of your country will be under water. 25-30 million Bangladeshis will have lost their homes.

What are you going to say to those in Germany, Canada, the Emirates, where people produce so much more greenhouse gasses than you do? What should they do and change? What would be fair"

4. The climate-friendly cloud

Finally, each group is given a second cloud. These clouds are all the same size because they symbolize how much CO₂ each person on our planet is allowed to cause per year so that the average global temperature does not rise by more than 2 degrees from the pre-industrial temperature in the long term. This can be said very precisely. It is 2.7 tonnes of CO₂ per person per year.

Now the participants compare their country-cloud with the climate-friendly cloud. The average German cloud is three times too big, while the people on Madagascar could produce 20 times more CO₂ per person on average than they do now. They would then still be living in a climate-friendly way.

In other words, if all the people in the world had been emitting as much CO₂ as we do in Germany for years, the climate would already be beyond saving.

How Climate Unfriendly Am I Traveling?

Overview:

In this unit, the participants learn in a playful way how different the climate footprint of various means of transport (bus, train, car, plane) is and why. In this way, an awareness can be created or strengthened that one's own mobility has also a great influence on the climate. The participants learn what different distances can be covered by car, bus, long-distance train and plane - with the same greenhouse gas emissions. For this purpose, four participants "travel" as far as they can get with the respective means of transport with half a gram of CO₂. This illustrates the different carbon footprints of the modes of transport. At the end, they discuss the result.

Group size & Target Group:

Recommended for grades 7 – 13 (age 13 – 19) / *up to 30 participants*

Time – Duration:

20 – 30 minutes

Materials & Preparation:

You need four measuring tape rolls of the appropriate length and cardboard / paper for eight signs + pen, string

Production of eight cardboard signs (two for each mode of transport) to put on

Shorten the measuring tapes to the appropriate lengths:

Air-plane: 2,83 m per half gram of CO₂

Car: 3,47 m per half gram of CO₂

Train: 16,22 m per half gram of CO₂

Bus: 17,17 m per half gram of CO₂

Source: Ministry of Environment Germany 11/2020.

Instructions how to run the workshop:

First, the participants name means of transport that are easy to travel with, until cars, long-distance buses, long-distance trains and airplanes emerge.

Then eight volunteers are sought and two signs are distributed to the volunteers for each mode of transport. Now the task gets explained:

The aim is to determine how far a person can travel by bus, train, plane and car if they are only allowed to cause half a gram of CO₂.

It is important to explain and repeat over and over again:

This also includes the average utilization of the respective means of transport. That means: The airplane consumes a lot more fuel than a car. But there are also a lot more people on the plane and everyone has half a gram of CO₂ at their disposal. In Germany (2019) an

average of 108 passengers sat in each passenger plane. Therefore, you have a total of 54 grams of CO₂ available. In Germany, an average of 1.4 people sit in the car, we are generous and assume two people. Together you have one gram of CO₂ available. In order to determine the climate friendliness, however, it is crucial: How far can I get with MY half gram of CO₂ in the car, plane, bus and train



Average utilization based on data from the Federal Environment Agency in Germany (reference year 2019)

Airplane = 70% (106 passengers)

Long-distance train = 56% (750 seats / 420 passengers)

Long-distance bus = 54% (60 seats / 32 passengers)

Car = 1.4 pers.

Four people set up an imaginary starting line and receive the respective measuring tape for their means of transport. The other four should later pull on it one after the other and walk backwards until it is completely rolled out.

The car starts. Now there is a reference value, because nobody has any idea how far you can get with half a gram of CO₂. The tape measure is rolled out. It ends after 3.47 m. Now the other participants have an orientation. Because the other three tapes are not simply rolled out, the participants should estimate the finishing.

The plane follows and the rest of the group estimates how far 108 people can get by plane until everyone in the plane has used HIS/HER half a gram of CO₂. So they are guessing how far the plane can go compared to the car. The group sends one person to the appropriate position. For example, you call "continue" until the majority say "stop" at some point. When the group has decided how far our "flight passenger" will go, the second person

on the plane pulls the tape measure and walks until the tape measure is completely rolled out. After 2.83 m it is over, so not that much worse than a car, many people think.

But, now it is necessary to explain in more detail:

In addition, the CO₂ has an even more harmful effect on the climate at high altitudes at which it is emitted by the airplane. Moreover, there are other climate-relevant emissions such as nitrogen oxides, soot particles and water vapor - these are the white stripes in the sky. These must be included in the overall emissions of a flight. The effects are roughly doubling the amount of pure CO₂ emissions. Our passenger has to go back now to 1,40 m, halve his traveled distance.

Because it is a bit abstract, especially younger participants in particular should always be reminded in between:

“If the plane can go further than the car, it is more climate-friendly to go by plane than by car. If it is more damaging to the climate, you have to call stop before reaching the car ”

or

“Of course a bus produces more greenhouse gasses than a car. But here 32 people are sitting together in a bus. If 32 people would take a car instead of a bus, an average of 20 cars would drive for example from Hannover to Berlin and not one bus. Now think about what is more climate-friendly: One bus or 20 cars? So if traveling by bus is more climate-friendly than by car, then the bus has to get further, right?”

The same process takes place on the train and finally on the bus. It becomes clear that traveling by bus or train is much more climate-friendly than traveling by plane or car.

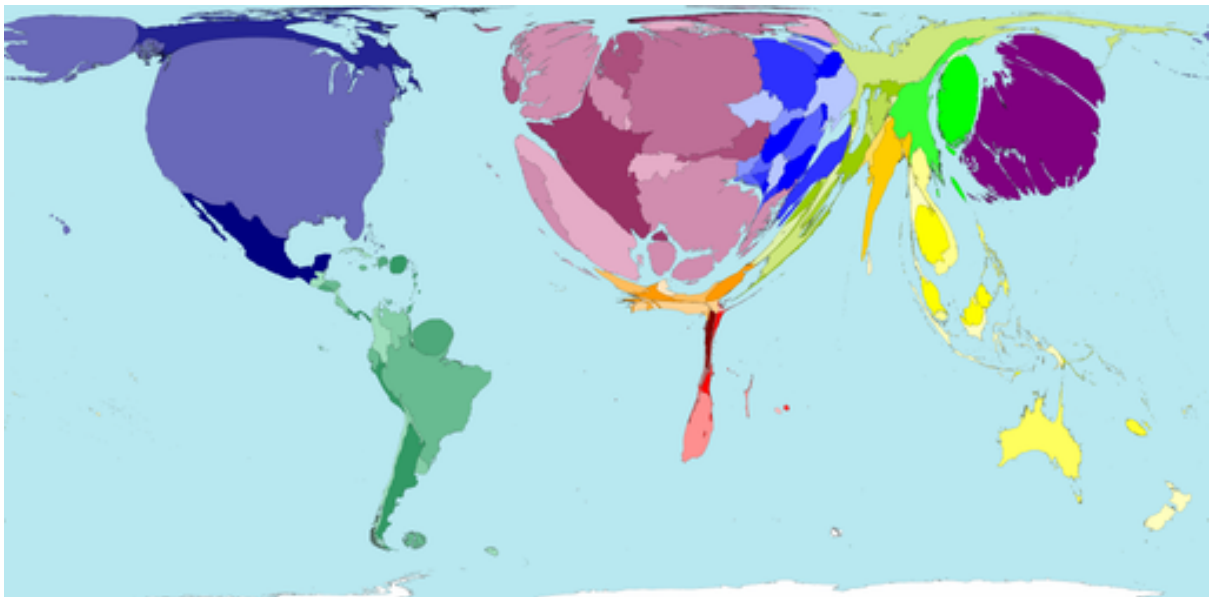
The following can be discussed:

- Are you surprised by the results?
- What makes driving and flying so harmful to the climate?
- What can you do yourself to travel more climate-friendly?
- What should politics do?

More facts about traffic

- In Germany there are 46.6 million cars and almost 82 million people.
- 90% of the kilometres driven in Germany are driven by cars.
- The average speed of a car during day in a city is 18 kilometres per hour, which is hardly faster than a bicycle.
- In the last 10 years before Corona, domestic German air traffic has increased by 26% and the one abroad by 62%.

Car density worldwide in 2002



Background information: Why are airplanes and cars particularly harmful to the climate?

- The enormous weight of an airplane (an Airbus 380 weighs 560 tons) has to be brought to a height of approx. 10,000 meters - that consumes an extremely high amount of kerosene. In addition, the CO₂ has a more damaging effect on the climate at this high level. There are also other climate-relevant emissions such as nitrogen oxides, soot particles and water vapor. These must be included in the overall balance of a flight. The effects are roughly double the amount of pure CO₂ emissions.
- On flightradar24.com you can see how many planes are in the air worldwide - this shows the extent of air traffic and the corresponding consequences.
- A usual car weighs 1,4 tons and it's goal is for example to transport a 15 kg child to kindergarten. That needs a lot of fuel to move. In addition, there are only 1.4 people on average traveling together in a car.
- Theoretically, every person has an annual budget of 2.7 tons of CO₂ available, which should not be exceeded in order to be climate-friendly. With a single long-haul flight over 9,350 km, this annual budget has already been exceeded.

Weather & Climate

Overview

The Workshop starts with the difference between weather and climate, then it explains in easy words what exactly the greenhouse effect is and what causes global warming. The workshop also shows that a temperature increase of one degree is already significant for our earth and life on earth.

Group Size & Target Group

Recommended for the age 13 – 19 / up to 30 participants

Time - Duration

Around 30 minutes

Materials & Preparation

2 photo series for download at: www.janun-hannover.de/klimawandel

Instructions how to run the workshop

The difference between weather & climate

The first question to ask the group in order to get started with the topic:

Are we lucky today with the weather or with the climate?

The participants probably say: weather!

The next question is:

Right, weather, what's the difference between weather and climate? Why do we say, today is the weather good, not the climate.

Answer: Climate is the weather of the last 30 years in one place

“Take the weather of the last 30 years and mix it up once. The mix of these 30 years is then the climate.”

There is also a world average climate, and this world average climate has a world average temperature.

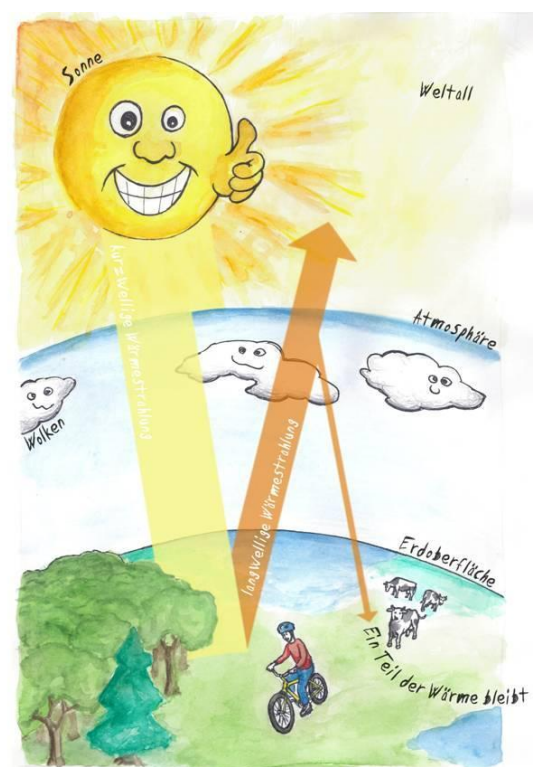
Guess how warm it is on average in the world if you mix everything, warmer and colder countries, summer and winter, day and night?

What do you think is the world average temperature?

Right Answer: 15 degrees +: That is the average.

The greenhouse effect

The fact that it is relatively warm on earth is due to the sun and the greenhouse gases. The sun sends its rays to the earth. When these rays hit a surface, the light radiation is converted into thermal radiation. You experience that yourself, for example, when you run barefoot in summer on black asphalt, it's warm or even hot. But a large part of this heat is reflecting, it goes back into space.



There are greenhouse gases in the atmosphere. You already know CO₂. The clouds in sky also consist of greenhouse gases. This and other greenhouse gases ensure that part of the heat gets thrown back to us and does not disappear in space. You can see that here on the 1st picture.

It works like under a blanket. You lie in bed and your body radiates warmth. So that you do not freeze, you lie under a blanket that holds the warmth that you radiate.



On the **2nd picture** you can see how we are producing more and more of these greenhouse gases.

This leads to the fact that the “climate gas blanket” over us is getting thicker and thicker, more and more heat is thrown back, as you can see in the thicker beam on this 3rd picture, which points back to the earth.

This is due to human-made climate change. You are lying in bed under your blanket, where it is pleasantly warm. By driving cars, heating houses, turning on lights, buying plastic bags and and and, we put another little blanket over us and another and another. We start to sweat. That is exactly the same as a greenhouse effect, which is why it is getting warmer and warmer.

How warm is it again on average on earth?

Exactly + 15 degrees!

The temperature has been measured all over the world since around 1880, so since then we have also known how warm it was on average each year on earth.

What do you think, how much does it have gotten warmer worldwide since 1880 because of our production of additional greenhouse gases by driving cars, heating houses etc.

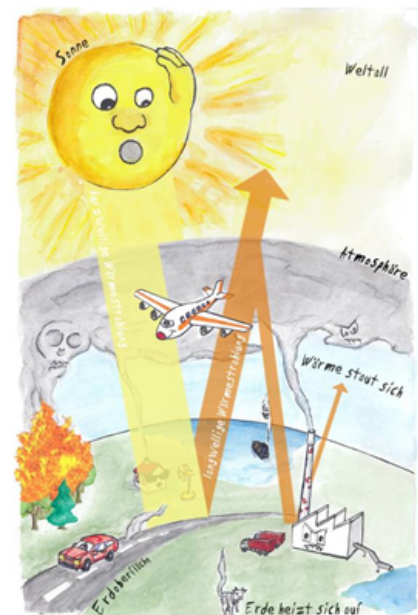
The correct answer: +1.1, degrees until 2020

(The participants mostly estimate + 4 - 10 degrees and are surprised that it is only 1.1 degrees. It is now important to make it clear to them that already 1.1 degrees is a lot for us and for our planet.)

This can be illustrated well with the following example:

The ice age ended about 10,000 years ago. Northern Germany was covered with thick ice, all of Scandinavia, England ... were under ice, how much colder was it on earth an average during the Ice Age than it is today?

Again, participants are guessing. Usual estimates 10 degrees colder, even 20 degrees colder than today)



The correct answer: During the Ice Age it was 4 - 5 degrees colder than it is today.

Message: 4 - 5 degrees colder than today and the world was completely different back then.

You see, even a few degrees make a big difference.

So it has already got 1.1 degrees warmer, mainly because we started burning oil, gas and coal to produce electricity and operate machines and cars.

Almost all countries in the world have agreed that it should not become more than 1,5 or at least 2 degrees warmer than in 1880. That means now, it can only get 0.4 or 0.9 degrees warmer, because we already reached 1.1 !

Why actually these 2 degrees and not 3 or 5?

Science has found that at 2 degrees more things happen that then contribute very strongly to climate change by themselves.

You've heard of permafrost. This is permanently frozen ground, it is found in Canada, Greenland, Siberia and northern Scandinavia. Lots of methane gas is stored in the ground under a frozen layer of ground. (Rotten plants have turned into methane-gas.) If the ground melts because it gets warmer, the gas gets out in large quantities. Moreover, this methane gas is 21 times more harmful to the climate than CO₂, for example.

So if it gets 0.9 degrees warmer, then that will happen and in order to that the greenhouse gas concentration will rise and it will get much warmer even faster. Then even more permafrost thaws, more methane gas is released and it gets even warmer and so on.

This must be prevented.

That way we need to try to stay under 2 Degrees Celsius, at least that we should manage to do!

What is causing how much climate change exactly?

"Now, if we want this not to happen, we also have to produce much less greenhouse gasses than we are doing right now.

If we want to protect the climate, we need to know what the main sources of greenhouse gasses are.

We will find out now."

Let's start collecting ideas.

"How do we humans cause greenhouse gasses?"

"What do you think?"

Now the participants name areas. Whenever an area matches one of the A2 photos that you hold in your hand, this is placed on the floor in front of the group.

"Okay. Yes, traffic ... here in the photo you can see cars, but the photo represents the entire global traffic, including flying, traveling by train, ships ..."

"What else ..."

Little by little, you put all seven large photos on the floor in front of the group.

Then you distribute seven A4 cards with a percentage on it to seven students. They do have the task of assigning the percentage cards to the photos.

So which area, viewed worldwide, is to blame for human-made climate change to what percentage?

Here is the right answer:

- Production of electricity (coal power plants ...) 26%
- Industry (production of plastic bags, cell phones ...) 19%
- Land use change (forest destruction ...) 17%
- Agriculture 14%
- Traffic 13%
- Heating of buildings (includes also cooling of buildings) 8%
- Garbage 3%

It probably than looks like this



It is important to remember...

"In the picture you can see a field with machines here, but it's also about animal husbandry, so the photo is representing agriculture in general ..."

"As I said, it is not just about cars, but all means of transport"

"Destruction of forests, that's not so much here in Germany, it's about forests in Brazil, Congo, Siberia ..."

(The participants usually rate the influence of garbage much higher. This is because the garbage issue is very present. Here it is important to say "Garbage is a big problem when we think of micro plastics for example. There are many good reasons to avoid trash, but it is not primarily a climate problem. School-Children often equate climate protection and environmental protection)

The numbers above are from the United Nations Intergovernmental Panel on Climate Change and refer to global greenhouse gas emissions.

Now we have an idea where, above all, something needs to be done and what we personally can do.

Here you can briefly talk about the aspects that are not discussed in the following.

"Electricity creates a big part of the problem. Saving electricity helps a lot, as we can see. Turn off the light, switch off standby or even change the electricity provider. Find out at home who provides your electricity and how!"

And what also helps: Don't turn up the heating, it's better to put on a sweater. The recommended room temperature is 20 degrees. Just 1 ° less room temperature lowers heating energy consumption by around 6 percent.

Sources Used and Further Readings

In this part of the booklet you may find some additional sources that we also used during our project implementation period.

1. Nature Connected Youth Online Youth Exchange Activity Booklet;
https://drive.google.com/file/d/1QyENUA4_1tAJcuyD55so8lkiTjho6jG1/view
2. good boss bad boss orijinali
3. How to talk to children and young people about climate change;
<https://worldslargestlesson.globalgoals.org/wp-content/uploads/2020/10/Final-Teachers-Guide-.pdf>
4. Your Plan Your Planet (fASHION)
5. <https://www.2000m2.eu/> (nutrition)
6. My Ecological Footprint (climate)