

ZOOM – Kids on the Move for Climate Action



CLIMATE VOYAGE AROUND THE ONE WORLD



Climate Alliance

Stopovers at a journey around the One World

1. **Europe I:** Floating Settlements
2. **The Arctic:** Polar Bear becomes Swimming Bear
3. **North Asia:** Permanent Frost into Permanent Mud?
4. **Europe II:** Skiing and Sledding
5. **Oceania:** Land Submerged!- Even Without a Storm
6. **Southeast Asia:** Palm Oil and Toilet Paper
7. **Australia:** Fireburg's Dance
8. **The Antarctic:** Splish-Splash Penguins!
9. **Africa:** Healing Rain, but When?
10. **South America I:** At the Other End of the Pipeline
11. **South America II:** The Warrior with a Camera
12. **South America III:** Light for the Rainforest
13. **North America I:** Is our barbecue party in danger?
14. **North America II:** Dancing Lights

Hello and welcome aboard our Climate Voyage around the One World!

Be prepared - our climate shuttle is just about to leave the city of Bonn!

It will take us on a journey at the speed of thought that leads us to different places all over the world.

At the window of the United Nations Climate Secretariat - from the roof of which we will take off - you see Patricia Espinosa. She is the head of the secretariat and is seeing us off. At the end of our climate excursion we will meet her again in Egypt. There, in November, at the 27th UN Climate Conference, we will hand over to her the green footprints collected by children all over Europe.

But first things first: now we are very much looking forward to our fourteen stopovers and all the things we will learn about our global climate. We will gain knowledge about the causes and consequences of climate change, we will listen to people telling us about their everyday problems, and we will look into what it means to polar bears and penguins when the ice melts away.

We wish you a very exciting trip around the globe!

Your Green Footprint-Team at the Climate Alliance

1. Europe I: Floating Settlements

Goedendag! My name is Matty and I live in the Netherlands. Besides endless tulips, bicycles and windmills, there is also a lot of very flat land here. Almost half of it lies less than one metre above sea level - and one quarter less than just 25 cm! These areas must be protected from flooding by huge walls made from earth known as dykes. This was not always the case though: an old saying goes that "God created the world, but the Dutch created Holland". Over the centuries, we have become real champions in reclaiming land from the sea. Every year, we pump ten million cubic metres of sand up from the seabed and spray it onto the beaches along the coast to create new land.

The rise in sea level caused by climate change threatens our entire country if the dykes are not high enough to keep the water out. To ensure that this doesn't happen, we now want to work less against the water and more with it: part of the land is being flooded again to give the water more space. Floating settlements that move up and down with the tides are being built to allow people to continue living there. My uncle already lives in one of the floating houses in IJburg. When we visit him, we are able to go swimming right outside his house in the summer and ice skating in the winter.

The idea has quickly caught on and many towns and cities in coastal regions are also now interested in floating homes. Maybe there will be floating settlements there too one day - after all, major cities such as Tokyo and London cannot simply be moved inland!

Maakt het goed! (Take care!), Matty



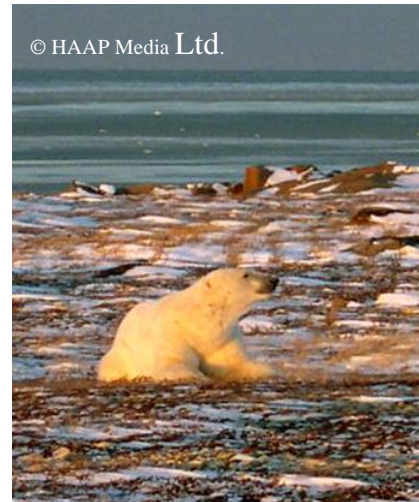
© Roos Aldershoff



2. The Arctic: Polar Bear Becomes Swimming Bear

The Arctic - or the North Pole - is the kingdom of the polar bear. He is one of the biggest carnivorous animals. In winter he lives on packed ice - ice that floats on the sea - and hunts seals. He eats a lot to build up fat reserves. In the summer he often starves for months at a time. Then he lives on the continent because the packed ice melts. The polar bear is only a successful hunter while living on the packed ice. Seals are too fast for him in the water.

But his living space is literally melting away under his feet due to the climate change; the temperature of the Arctic has risen by 5° Celsius during the last 100 years. And because of this, the packed ice is getting thinner and thinner. Lately, in the spring the ice has been melting much earlier than usually does and it is freezing much later in the autumn.



This creates a lot of problems for the polar bear. The earlier the packed ice melts, the less he can eat to build up his fat reserves. At this rate, many polar bears will die of hunger during the ice free periods. This is especially bad for the polar bear's babies. Only every second baby survives the summer.

Because the ice can be very thin in the winter, it is not strong enough to support the heavy polar bear. In some places the packed ice collapses due to the polar bear's weight. Since they cannot stand on the ice it is getting more and more difficult to hunt seals.

Climate change is a big problem for the polar bear as there are more rainstorms. Due to this, the glacial caves the polar bears give birth to their cubs in can collapse. Both the mother and cub can be hurt or even killed.

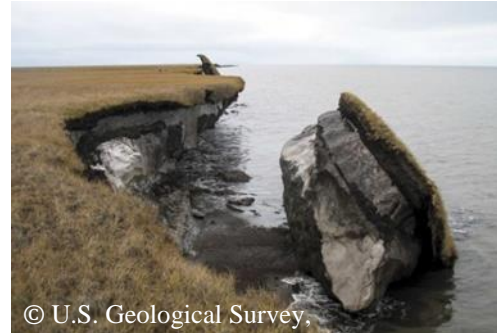
If climatologists are right and the Arctic will be ice free in summer by the end of this century, polar bears will become extinct...



3. North Asia: Permanent Frost into Permanent Mud?

North Asia includes a large area that you might know as Siberia. A large part of Siberia belongs to Russia. Hot summers (up to +40°C) are being replaced by extremely cold winters (to -70°C). It often snows 9 months out of the year.

In many regions, the ground is completely frozen - scientists call this permafrost. In many places the ground has already been frozen for many thousands of years, sometimes up to 1km deep! Now, in the warm summer months, some of the surface thaws. This has created a large amount of swamps and marshes. These wet areas have produced billions of flies and mosquitoes, which are a big nuisance to animals and humans.



© U.S. Geological Survey.



© bopohex.

It creates a problem in Siberia when the earth is frozen deeply and then softened quickly, because it is difficult to safely construct roads and houses. This is why buildings are being constructed on piles of deep earth that are known for staying frozen for the entire year.

Climatologists now fear that there is more thawing of the permafrost in summers than there ever was before. Roads and houses that were not built on the deeply frozen earth could sink into the "permamud". In Yakutsk, a city

in eastern Russia, many buildings are in danger of collapse because of this freezing and thawing.

Also, the railroad and electricity lines have been built on the permafrost. Experts are warning that the worst damage could be to the crude oil and gas pipelines. In the deserted and inaccessible areas of Taiga and Tundra, it could take a long time to locate and patch a leak.

Many climatologists say that if the permafrost continues to thaw, large quantities of the greenhouse gasses carbon dioxide and methane that are associated with the last ice age will be released. Satellite data shows that the lake areas in Siberia have increased by 12% in the last 30 years. Places where before there had been nothing but Tundra, are now covered by water, from which methane bubbles.

The Russian Government hopes that due to the permafrost thawing in southern Siberia, new land for grain production will be created for the northern hemisphere.



© Ronald Aveling

4. Europe II: Skiing and Sledding

Hallo (Hello), my name is **Katharina** and I really love snowboarding and skiing. I also like sledding. How about you?

During the last winter holidays, my family and I went skiing in Austria. The mountains were around 2500 meters above sea level. Because there was not enough snow, the slopes had to be covered nearly all day and night with artificial snow from snow-cannons. Snow-cannons need a lot of energy and they cost a lot of money. The artificial snow is also much heavier and harder to ski on.



© Climate Alliance

Where I live it only snows for a few hours in winter. There is hardly enough snow to build a snowman! It is also impossible to even think about sledding or snowboarding.



© PixelQuelle.de

My grandmother lives in southern *Germany* and she told me that when she was a child sometimes she didn't have to go school during the winter because of all the snow. There was so much snow during the winters that the streets could not be cleared in time. Have you ever experienced something like that?

My father says that in a few years, snow will only be on top of the mountains, and even then it will only be there for just a few days or weeks. He says the glaciers in the Alps will not last much longer if the world keeps warming up.

Tschüß! (Bye), Yours Katharina

5. Oceania: Land Submerged! – Even Without a Storm

In the Pacific, many islanders suffer from the global warming. The islands are getting smaller because of the rising sea level. Due to the frequent storms, there are more landslides on the coast and drinking water mixes with salt water. Some islands are running out of food because sweet potatoes and other vegetables cannot grow on the land because it is too salty. Sharks and stingrays are sometimes found swimming in the fields after severe floods.

Dario Schwörer is a mountain guide in the Swiss Alps. In 2009 he was sailing with his wife Sabine and his two children through the Pacific for the "Top to Top-Global Climate Expedition". They visited schools there and told the children about the climate change. The following report Dario sent us about a school visit on Huahine:



Iaora (Hello)! In beginning of June we visited a school in Fare on Huahine, an island that belongs to Haiti. To get there we had to sail for 24 hours from Papeete. Papeete is the capital of French Polynesia and is located on Tahiti Island.

The next day we explored a little bit of the island and enjoyed the wonderful flowers and the blue-eyed eels living in a little river. Sometimes we saw traditional island houses with solar panels on the roof to heat water, this is a good example of how the abundance of solar energy in the South Pacific can be used.

In the schools we talked to the students about problems of the climate change and what we could do to change it. When Sabine wanted to explain how solar cells work, the sun hid behind clouds, so there was not enough power to drive the solar mobile that we brought.

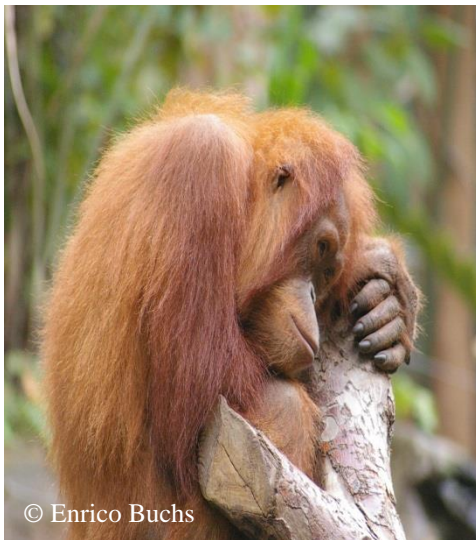


Nevertheless, the children were so impressed by our sporty little solar car that we decided to give it to their school.

Na na! (See you soon!) Yours Dario

6. Southeast Asia: Palm Oil and Toilet Paper from the Rainforest

Here in Germany, one can buy recycled paper everywhere (it is marked with the Blue Angel) - it is just as smooth and soft as regular paper. Nevertheless, only 24% of the people buy it! Also, the proportion of old paper used for the production of recycled paper has shrunk by 20%! This means that the majority of our hygienic paper (toilet paper or tissues) is made from so called fresh pulp fibre - it is taken directly from wood from the forests.



© Enrico Buchs

But what does this have to do with Southern Asia, Orangutans and Sumatra Tigers? Their homes are in the rainforests in the 14, 000 Indonesian islands. Many large mammals that live in the rainforests don't live anywhere else, such as Java and Sumatra Rhinos, Sumatra Elephants and naturally, Sumatra Tigers and Orangutans.

Rainforests are often called the green lungs of our Earth. They provide us with oxygen and are large conservers of carbon dioxide and water. Therefore, the rainforests play an important role in our climate and environment.

Soon there may not be any more forests in Indonesia. If there are no forests, the Sumatra Tiger would not be able to hunt anymore. Currently, every minute that passes a forest the size of a soccer field is being cut down.

Every year, the Indonesian paper industry produces about 14 million tons of paper. For this, huge amounts of wood are needed, 70% of which comes from rainforests. Since 2011, for environmental reasons, it is prohibited to cut down rainforest areas in Indonesia, but it happens anyways - illegally.

The virgin rainforests are not only cut down for paper though: they're also burnt down to create palm oil plantations. The palm oil is shipped to Europe and used for foods such as margarine, chocolate bars, soups and ice cream. It is also used in laundry detergents, shower gels, and many other skin care products - the EU is the largest palm oil importer in the world! The oil is also processed into bio-fuel because our acres are not big enough to produce sufficient amounts of rapeseed oil. Though the EU has decided in 2018 that this should end, it is not very likely to happen before 2030.



© Climate Alliance

7. Australia: Where the Firebugs Dance

Australia is the driest inhabited continent. It rains very seldom and irregularly. The long dry seasons and times with severe floods are normal there. Climate scientists are worried now that both periods of drought and flooding will exacerbate with climate change. In the inland many people gave up farming because the water is even scarcer than it used to be.



© USDA Forest

Hello, my name is Kyle and I live in Brisbane, a big city in the east of Australia.

I like to go to school by bike, although temperatures can get up to 50° C in the shade in summer (which is during winter where you live). Our classroom has air conditioning, but this needs electricity, of course. The power is produced in coal-fired power stations, which release a lot of CO₂ and increases the effects of global warming.

In the last years, it has been terribly hot and dry, and everything has withered. Due to the drought, there are more and more bush fires. A couple of years ago, nobody really noticed because small wild fires in summer are common around here - many plants even need them to grow. Today, however, there are more and more heavy fires because large amounts of dry materials gather. Last year, an area as big as 8,400 soccer pitches burnt down in a national park - there was smoke and flames everywhere!

In some areas, it hasn't properly rained in years. Only muddy broth comes out of the tap, so everyone has to buy water which is very expensive! In the cities, the water was so scarce in summer that it was forbidden to water your plants! At the same time, my uncle came to visit because there were such heavy floodings where he lived. He told me that illnesses spread easily because of all the dirty water. It's so weird to think that people here either have way too little, or way too much water!

Well, see ya down under! Yours Kyle



© Ryan Johnson

8. The Arctic: Splish Splash Penguin

The Antarctic - also called South Pole - is a nearly untouched wilderness at the end of the world. As far as the eye can see there is only ice, snow, mountains and glaciers. It's the coldest place on earth and the temperature can sink to -90°C !

Only a few people live in Antarctica. Most of them are scientists that investigate climate change. They found out that the west side of the Antarctic is warming up considerably. Keep in mind that penguins in Antarctica live above ground on the packed ice. However, often it is so windy that the sea cannot freeze. Now, instead of packed ice, there are only sheets of ice. The penguins need the ice to rest and to hide from predators, such as the hungry leopard seal.



© HAAP Media Ltd.



© HAAP Media Ltd.

Sometimes, the blowing wind can quickly close up gaps between the ice sheets. This is often very bad for the young penguins living on the coast because their parents, who were off widely searching for food, return home and cannot find their babies because of the newly formed ice. Many young penguins starve to death. A few attempt to find their own path to the sea. But numerous sea birds lurk over the sea as their favourite food is baby penguins. Only about half of the baby penguins survive their first year.

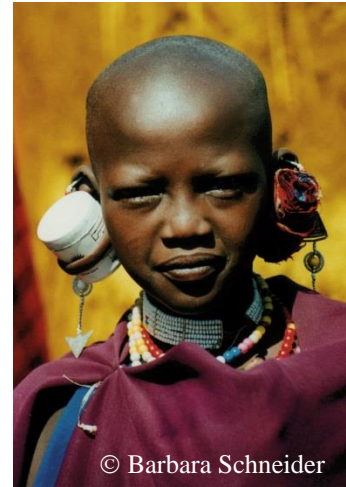
If the water keeps getting warmer, the krill (small crabs) and fish, the favourite food of penguins, will retreat deeper into the sea in search of colder water. Because of this, penguins must search for new homes. Unfortunately, many areas have already been taken by other penguin colonies. The more penguins that live in an area, the less krill and fish there is, so penguins are forced to swim further out into the ocean to satisfy their hunger...



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9. Africa: Healing Rain - But When?

Supa! (Hello!) My name is Esiankiki and I am a Massai girl. I live in a little village with cottages made out of mud and cow dung in southern Kenya. Our village is enclosed by bushes with thorns that protect us against wild animals. We have a little cattle herd, a few goats and some sheep. My brothers tend the animals, every day they go with the animals to drinking holes. They have to walk very far because the drinking holes near the village are dried up. Since there isn't very much water left, many animals have died of thirst. This makes my father very sad. The animals are all we have. We cannot plant fruits or vegetables - the land is too dry for that.



© Barbara Schneider



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Sometimes it does not rain a drop for months. Drinking water is very rare. At night my mother and I often walk to drinking holes that are far away.

The way back is very hard and dangerous. We carry the heavy water jars on our heads. Unfortunately, the water we bring to the village is very dirty. Many children get diarrhoea and stomach cramps.

Only a few children of our village get to go to school. Most of them must stay at home because they need to help their parents with work or they are too sick to go to school because of the dirty

water.

Because of water is rare and precious in our country, there was an armed conflict between the Massai and the Gikuyu people. Many people were hurt or killed. To improve the situation, a well and a watering place for our animals should be built. If this works out, I would not have to walk so far to get water. And I could go to school more often - that would be great...



© PixelQuelle.de

Sere! (Bye), Yours Esiankiki

10. South America I: Light for the Rainforest

Only half of all households worldwide are connected to the electric grid, in Peru it is about 65% of the population. Electricity is also a luxury for the indigenous population in the Amazon.

Hola, I'm Pepe of the people of the Cocama and I live in San Martín in the "Reserva Nacional Pacaya-Samiria", a national park. Our village is only reachable by ship. To Iquitos, the next large city, it's 7-8 hours by speedboat, but that's expensive.

Here the sun rises at 6 a.m. and at 6 p.m. everything is dark. In our houses we have so far mainly oil lamps. But they smell and produce soot; apart from them there is no good light.



© Climate Alliance



© Climate Alliance

Recently we've gotten mobile LED Solar lamps. Their light is brighter and better for the environment. And we don't have to buy any more expensive petroleum!

The lamp's batteries are charged during the day with a small solar module (3 watts) or with a charging station (40 watts) that charges 10 lamps. Each gives off light for 6-8 hours. More and more people come from other villages and ask how they can also get such lamps.

We got our lamp from the AIDSESP, an Indigenous Organisation in Peru. But we must also do something in return: the children in my school collected the garbage between the houses and banks of the river Samiria in big sacks for a whole afternoon and brought it to the waste collection station - all together there was quite a lot. That's because of the strong high water, which left many plastic bags and water bottles under our stilt houses.

Our waste is brought to the landfill in Nauta with a load boat. Unfortunately for some people this is too expensive, which is why ever more garbage is landed in the rivers and creates problems for manatees (sea cows), sotalias (river dolphins) and other river dwellers.

I've heard you separate your waste - why?

**Adiós por ahora - bye for now
Pepe**



© Climate Alliance

11. South America II: The warrior with the camera

Sarayaku is an area comprising five Kichwa Indian municipalities on the Bobonaza river in the Amazon rainforest of Ecuador. Many endangered species like the tapir, the three-toed sloth and the rainbow toucan live here as well. The people of Sarayaku are known throughout Amazonia for standing up against the exploitation of their forests by oil companies. They say their ancestors and the Yachak, their shamans, bequeathed them the 135,000 acre area. They want the oil to remain in the grounds of the Amazon.

Eriberto Gualinga is a Sarayaku warrior. Instead of a bow and arrow, his weapons are a camera, a microphone and a Twitter account. In short videos, he tries to give a voice to all the creatures of the forest, pointing to the destruction of the rainforest and our unending hunger for resources. He also films the life of the Kichwa Indians and documents their legal battles against oil companies.

"My work began in 2002 when I documented conflicts with the oil companies and the military as they invaded our territory to conduct exploratory drilling. Back then we launched a website because we wanted to defend ourselves against false information from the outside and to present our views. Since then, I document everything we do with the camera so that others can resist like we did. My films have already achieved much, especially in other villages that share our problems but are still in doubt about what they should do. That's a good feeling.



We in Sarayaku feel very connected to our culture, our traditions and Pachamama. We believe that we can't be who we are without the spirits of the forests, the rivers and the mountains. We know that the Amazon is much more valuable than oil. For us, the forest is life. Its importance cannot be reduced to money alone!"



Learning from the Global South: Eriberto wants to prevent the forests, the lungs of the earth, from being forever destroyed due to short-term economic interests. Therefore, he is traveling through Europe in 2015 to advise us how to treat Pachamama, our Mother Earth, with more respect just as the indigenous peoples of the Amazon have done for hundreds of years. For them, the rainforest is their church, their supermarket, their garden, their pharmacy and their building supplies store - it is the center of their lives.

12. South America III: Living at the Other End of the Pipeline

The burning of crude oil releases a large amount of CO₂ and other gases into the air –in addition to the many other problems created during crude oil production. Silvia Marcelia Tibi lives in a region where crude oil is produced. Her father belongs to the Shuar people, her mother to the Kichwa people. Silvia is married and has three daughters. We talked with her about her life in the Amazon rain forest.



Alli puncha - Hello Silvia. Where in Ecuador do you live?

The name of my community is Yana Marú and 80 people live there. Yana is near the bank of the river Pastaza. There is one street and busses can drive there. You can also go boating where I live. Many children live here, but there is no school yet in Yana. The next school is 3km away. The lessons are taught in Spanish. Sometimes an Indian teacher gives lessons. This is a big advantage, because they can speak Kichwa and are able to help the children become bilingual.

Yana Marú lies in a region where crude oil is produced. What does this fact mean for your village?

Mainly we are annoyed by the noise created by the people, explosions and helicopters! Not far from here is a waterfall. Just 15 years ago this place was very mystical. Today, the spirit has left because it is too loud. My family tries to protect the rain forest, but there are many problems. A lot of people in the community exploit wood and other things, for example medical plants. Sometimes scientists come here and dig everything out. They took plants from here, processed them and sold the plants under a different name!

Today you can also not go hunting. Okay, we have fish and all that, but recently we had accidents where crude oil leaked. Smaller rivers and lakes were contaminated. For four years there were no fish and no life. We had a big demonstration, but it is not enough to just tell them to go elsewhere. If so, other people would suffer from the crude oil - this is no solution.

**Thank you very much and
Kayakaman - See you soon!**



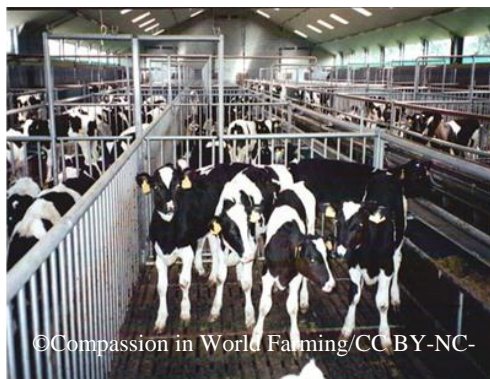
13. North America I: Is our barbecue party in danger?

Is there anything better than a barbecue party in summer? And thanks to the low meat prices, nobody has to go home hungry – no matter how long the guest list. But is that really a good thing? A look behind the scenes shows: for our planet, especially beef production is actually quite problematic.

Firstly, a lot of the beef on our plates is being imported from South America. But what is primarily harmful to our planet is the cultivation of soy beans which are processed into so-called concentrated feed that our animals here get: 80% of this soy is produced in Brazil. Oftentimes, rainforest is cleared in order to get the necessary acreages, a process during which a lot of CO₂ is released. Finally, everything has to be shipped across the Atlantic Ocean, which once again causes huge CO₂-emissions...



©Greenpeace/Ricardo Beliel



©Compassion in World Farming/CC BY-NC-

Most people are not really aware of these things and simply enjoy the fact that they're able to eat beef and meat whenever they want to. But to cover this demand, massive numbers of animals are needed. Another problem here is that cows in particular produce methane during their digestion: methane is a greenhouse gas whose effect is 25 times stronger than that of CO₂! Also, the animals often have to live under horrible conditions in those large farms.

Now - what does all of this mean for our barbecue party? Don't worry; it won't have to be cancelled. But next time, why don't you try grilling some bell peppers, courgettes or corn on the cob? It tastes amazing, you'll see! And if you really want to have some meat as well, check if there's a local, small farm close by where the animals are treated well and fed on regular, domestic grass - you'll be able to taste a difference!



©Hari Nandakumar

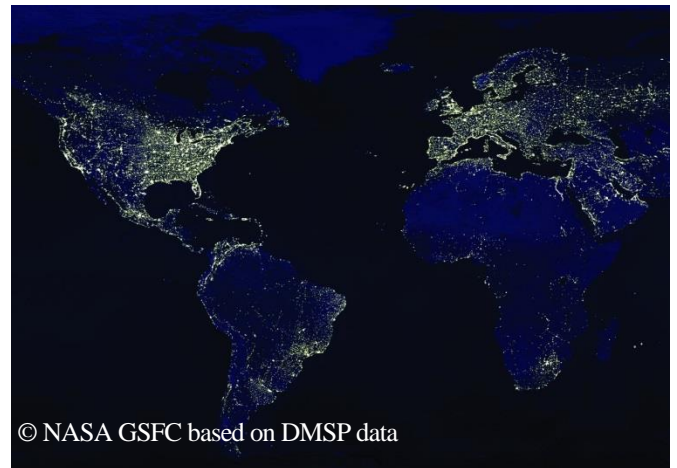
One last tip: have you ever payed attention to where your barbecue coal comes from?

14. North America II: Dancing Lights

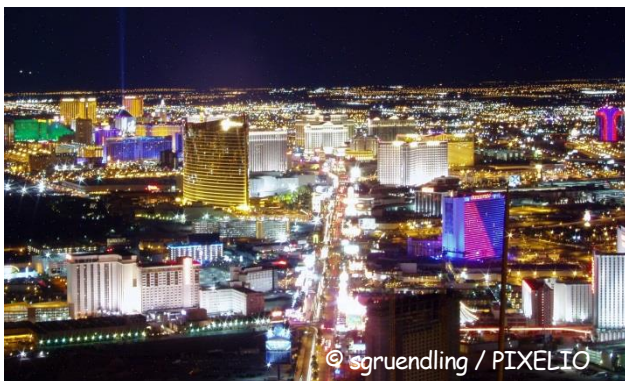
The industrial cities in the northern hemisphere use more energy than the developing countries in the southern hemisphere. The night photograph of the earth is a good picture of energy and electricity used in these regions. In North America, on the eastern side, it is especially bright. Europe shines very brightly, too but Europe has more than twice the people living there.

For many North Americans it is normal to leave lights on when they leave a room. They also love to illuminate their cities with advertisements, and because of this large amounts of electricity are used. The electricity is taken from coal and the burning of crude oil, which releases more climate harming CO_2 -gasses (carbon dioxide).

The houses are poorly insulated and the heating is not very effective, because heating oil and natural gas are cheap. Also, gasoline is considerably cheaper than in Europe, which is why many people can afford to drive big cars. They often drive long distances; trips to work, a restaurant or a cinema 100 km away are not uncommon. With an SUV needing up to 17 litres for this, you can imagine that this adds up quite quickly! (Here, new cars need on average 6,3 litres per 100 km.)



© NASA GSFC based on DMSP data



© sgruending / PIXELIO

People in poor countries complain that the industrial cities only think about the advantages and they don't think about the impact that their behaviour has on people in other countries. Above all, it makes them angry that the USA is the biggest CO_2 producer in the world and does not participate actively in the international efforts to stop the global climate change.

Now that gasoline and energy are becoming more expensive in North America, many people are considering exchanging their "gas guzzling" vehicles for smaller cars and putting better insulation in their houses. But, until the CO_2 balance (the carbon dioxide emissions per capita) is improved, we will continue to see lights dancing in North America...



© Jan37k / PIXELIO

Here we are: our journey around the world has ended!

The climate mobile has landed in Sharm el-Sheikh, Egypt. Here, at the 26th UN Climate Conference, politicians will be discussing all the problems we have encountered on our trip. As you have seen, we are not treating our planet very well - and this has to change! Ensuring this is the job of politicians from all over the world who meet here to come up with solutions together.

You probably understand that this is not an easy task at all - just think of how difficult it can even be to just divide something up between your classmates: it mostly ends in a fight. On the political level, this is even more complicated because every country has its own interests, and these often contradict each other.

Since almost thirty years, the politicians meet each year to talk about what needs to be done in order to protect our environment. In 2015, they all signed an agreement in Paris, in which every country committed to reach certain goals.



©UNOPS

Unfortunately, though, not all of them are keeping their word. And this is where your Green Footprints come in! They are meant to remind politicians of their promises, just like the demonstrations of "Fridays for future" are supposed to be a reminder to the respective politicians in their cities and municipalities.

Tell us about your ideas and the actions you have taken to protect our climate! Write us an email at zoom@climatealliance.org or send us a letter to the address below.

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Your ZOOM-Team at the Climate Alliance

www.zoom-kidsforclimate.eu

Zoom – Kids on the Move for Climate Action is a campaign of



Climate Alliance

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