



THE GREENBAT

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INTERNATIONAL SCHOOL OF ALMERE
THE NETHERLANDS

My name is Nathanya Seyed Mehdi. I am a 17-year-old student on the International School Almere in the Netherlands. I am born in the Netherlands, but my mother tongue is Farsi. My family left Iran due to the corrupt government 25 years ago. I have attended a Dutch primary school, and attended the International School of Almere for the 6th and last year now.

I am a hardworking student, and I do not give up easily. In my free time, I play volleyball. I also enjoy taking pictures and as well as videos which I edit into a short video.

I also enjoy getting involved in many projects, and helping the community around me as well as on a global scale. One of the most eye-opening experiences I experienced was my volunteering trip to South Africa in which I fundraised 1600 euros and helped at a community in a township named Lethabong.

Last year, I participated in PGC and this year I joined again. Not only to learn more but to get to the top and make my dream a reality. I believe that with Turning Green, I can make this big. I talked about this in the exam I wrote, and mention it in more detail on the next page.

My 10 favorite submissions, which I am most proud of are:

- Day 5 – Greenest
- Day 6/7 – Greener
- Day 12 – Greenest
- Day 13 – Greener
- Day 16 – Greenest
- Day 18 – Greener
- Day 19 – Greener
- Day 24 – Greenest
- Day 26 – Greenest
- Day 28 – Greener

I chose these submissions because they include collaborations with other teams as well as groups of friends, they include facts I was most shocked by and thought were most interesting. Especially the Greenest challenge of day 26 displays what I wish to do in the future – what PGC inspired me to fight for.

In this world we are living in, there is a lot of inequality. We are not treating each other fairly, and this reflected back when we learned about unfair farming, or how our clothes are actually made. We buy so much stuff, too much of things we do not need - and we end up trashing them. Where do they end up? In the ground, or they are burned and released as gasses and toxics in the air. I did a volunteering work in South Africa, where I fundraised and supported the community of Lethabong, a township in Pretoria. These people have NOTHING compared to us. Whenever I walk into my room, I am reminded of my 10-day journey there. They live in sheds made from metal pieces, their roofs are broken down, many live in dirt, they hold onto small items they find in the trash, and some don't even have windows in their homes. The space they live in, is smaller than the room I sleep in. This shocked me, and since then I have been wanting to change this. Not only do they not have access to education, but also not to clean water and proper food. Neither do they have enough money for medicine to cure themselves or their families. I want to change this, and PGC motivated me to stop dreaming this and to make it a reality. I learned that no matter what age, I can make a change. I can do this, and I will not give up. I want to provide these people the things we have access too. Most importantly - clean water and healthy foods. Organic foods, no chemicals involved. I want to offer them medicine, affordable ones made from natural ingredients.



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International School of Almere – Energy consumption

The school's buildings use a lot of energy, to heat/cool the building, light the rooms, power the digital white board, charging the MacBook's and iMacs, etc. However, our school aims to be sustainable, but how close are we to this goal?

I have done an investigation on the energy consumption of my school building. There are a few things which should be taken under consideration;

- **Transport.** Students travel by car, train, bus or bike. As we are an international school, we also have many students living far from the school location. Most teachers travel only by car.
- **For snacks and drinks during the day,** two vending machines are working all day. They probably use up a lot of energy, as they are lighted up, include a timer, temperature adjustments and other gadgets using up a lot of energy.
- **Heating.** The school has big windows, allowing a lot of sunlight to come in. During the day, the blinds are pulled up and after school the blinds are put down and the windows are closed to keep the warmth trapped. Besides this, there is floor heating in the school, instead of heaters. We have two floors in the building, and approximately 15 classrooms and big wide halls. Thinking about this, the floor heating uses a lot of energy. But it is not very effective, as it is mostly cold in the school building, and for sure not very sustainable.
- **Lighting.** The classrooms, cafeteria, halls, teacher room, aula – are all lit up by big lights in big amounts. Way more than we need, with our big windows.
- **iMacs.** We have 21 iMacs plugged in, using energy from 8am to 4pm (or later). They are not shut down completely, but are on sleep mode when the school is closed. They also have a build in feature in which they

delete all documents from the day. However, they are not plugged out of the power. They are running all day, even during the weekends! Which means a lot of energy is used and wasted when they are not even being used...

- **Cooling.** We do not have air conditioning in school. This is also good, because in the Netherlands it is generally quite cold. In summers however, it is a problem. The building is either too cold or too warm.
- **Printing.** For years, the teachers had been printing a lot of booklets and worksheets. In the previous two years, the school has focused on reducing and limiting the amount of prints made. All teachers and students are now only able to print with a card, which has a printing limit. However, the machine is plugged all day – thus wastes energy even when it is not being used.
- **Cafeteria.** Here, students purchase their foods. Either snacks, drinks, cold and warm. The products that should be kept at a certain temperature, are placed in a closed machine. Either the fridge, freezer, or foods are warmed up in the microwave. These all use energy, and are also plugged during the whole week.
- **Teacher room.** When I walked in to ask a question to a teacher, I realized a line for the microwave and coffee machine. These two machines are used frequently by the teachers. On a school day, we have approximately 15 teachers present, which means at least 15 cups of coffee or tea are produced per day. This consumes a lot of energy, too.

All of these use a lot of energy, most are wasted or misused during the day. I agree that some areas need lighting, but the amount of lights we have should definitely be reduced – and most rooms can use the sun as a light source instead of the switching the lights on. Also, many things are left plugged – which as we learned, consume the energy even when they are not being used. This shocking fact should be taken seriously. For this reason, I decided to ask around f

for more details on the energy consumption in our school building.

Today, 6th of October, I had a meeting with the head of school regarding the energy usage. After finishing the meeting, I was shocked that even the head of the school was not sure about the energy usage! We have solar panels on the rooftop, however, she does not think it is completely efficient. The energy company the school is using, is NUON (<https://www.nuon.nl/>). The company is said to be increasing its sustainable energy usage from the Dutch sun, water and wind. The school seems to be paying a lot of money to this company to support sustainability.

Another thing Mrs. Borges mentioned is that the energy generated from the solar panels, are supposed to be used to power the electricity needed in the school. The excess, from for example the weekends, goes to the NUON company. However, she is unsure if the system is working the way it should be. She will investigate this further and get results about the energy usage for me.

The school's future plans aim on using less energy. This year, the school has already promoted less printing. Teachers and students work with a card system with a limit to the pages printed per year. Besides this, the school is thinking of investing in electronically censored lights. This way, the lights in the halls, classrooms, etc. will only be lit when they are being used or when someone walks by. I suggested, however, to look into this further as sensors might use more energy. I stated this because sensors have to 'watch out' all day for movement, whereas the lights we have now are turned on and off by a simple light switch.

There is no usage in fossil fuels, Almere does not use gas. The government is very good in promoting and striving for sustainability. Our school also has no Bunsen burners build in the lab, there are only 2 portable ones which are used for experiments.

Also on the 6th of October, I have spoken to the care taker regarding the solar panels on the rooftop. Together with two other teams in school (Guardians of the Environment and Greenades) we got a 'behind the scenes' of the solar panels. Here, we were shown

where the energy comes in and how it is distributed in the school.

After school, I went back. I was wondering how many solar panels we actually have. I talked to the care taker and he was interested in this amount, as well. So we took out a ladder and counted. I have also taken some pictures of the view, and counted approximately 340 solar panels on the rooftop of our school building.

Also, as I was wondering around in my free hour, I found myself staring at the lights. The hall from the entrance door to the aula (approx. 20 meters) was lit with 30 lights alone. The aula has huge lights, as well as the library, classrooms, bathrooms. While our school has huge windows, enough access for the sunlight to light up the room. Shocking!

On the 10th of October, I was supposed to received more detailed information on the energy usage of our school. Unfortunately, I did not get all the information I wanted. But, the head of school did contact the people in control of the energy usage in our school, and the ones controlling the printing system. For me, this is an achievement as the school is trying to get the information. Ms. Borges said "I will contact them this morning again for the last push on the button". Soon, I will be getting more detailed information on the school's energy consumption.

I emailed the head of school again today, 11th of October, but unfortunately no luck. I will be getting the information soon, but as she receives a lot of emails I have barely any luck on a response. Today, she is not in school and therefore I cannot contact her personally. When she is, I will be asking her for the details.

I wished to have more information on the energy consumption, more detailed information of the annual consumption for example. Even though the deadline is tomorrow, I will not give up. Personally I've gotten very curious on this topic, and will therefore investigate it further once I get the detailed information. With the information and facts which I did learn, however, I put into a short and

and facts which I did learn, however, I put into a short and powerful analysis.

Titled; We got 5 problems, but solar panels aint one!

Ever wonder where the energy to light up the classrooms comes from? Or the energy used to charge the 21 iMacs running all day. Or how our floors are heated? I did wonder, and realized the truth behind ISAlmere's energy consumption.

On the rooftop of our school, we have 340 solar panels. The energy generated from these solar panels is supposed to power the electricity needed in school. The excess energy is send directly to the energy company the school uses, Nuon. The school seems to be paying a lot of money to this company – but is Nuon really as sustainable with energy usage as they say?

I plan on investigating this further. ISAlmere offers students a sustainable environment, and we must do our very best to live up to this. Not only the head of the school, administration staff, or teachers – but also the students.

ISAlmere does not have full details on the energy consumption, and I insisted for more information and insight on this. There are 5 main things our school needs a lot of energy for to run.

Heating is one not everyone is aware of. If you haven't realized yet, we do not have big white heaters in our classrooms. Instead, the entire building is provided with floor heating.

Lighting is another. Our school has a very nice architectural design, with big halls and windows. For this reason, I am confused why our school has so many lights. Together with Mahdi, a student in DP1, I counted the lights in the hall from the entrance door to the aula (approx. 20 meters) and in this area alone 30 lights were being used. This amount is ridiculous for a distance of only 20 meters, especially with the big windows and sun access we have in our halls.

Energy used for food is also a major factor in the total energy

consumption of our school. The microwave, coffee machine, teapot all need energy to higher the temperature. These machines are often used during the day and left plugged in. Which, surprisingly, consumes energy as well even when the machine is not being used. Besides this, the vending machines use up a lot of energy too. They have a build-in screen, and money counting gadget which is running all day. The vending machines have adjusted temperatures for the drinks and snacks to last long. This, however, uses up a lot of energy – also in the weekends.

Lastly, we make use of 21 giant iMacs in school. They are left on each day, for students to use. After school, they are not unplugged or shut down. They automatically go into sleep mode, and programs on the iMacs are running continuously.

We can easily adjust these 5 factors, and reduce the amount of energy consumed in the school.

What can you do? Firstly, think about the energy you waste in school. Do you close the iMac off when you are done using them? Do you turn the off when you leave the classroom? Or do you avoid using the microwave, by bringing food with you which does not need to be heated? These things can help reduce the school's overall energy consumption.

If you have ideas, or are interested in contributing to the 'ISAlmere consumes less' motto, do not hesitate to speak to me! I hope this informed you well, and that it has inspired you to stand up. We, as students, have a voice in this school. We are students of the International School Almere, of the school offering a sustainable environment. Lets work together to live up to this!

- Nathanya Seyed Mehdi. DP2 student.

Vending machines



Energy storage



Solar panels (approx. 340)



DAY 5 - ENERGY

DATE: 12th OF OCTOBER

CHALLENGE: GREENEST



THE GREENRAT
These two are shots taken by Hylke Jellema, a student in my classroom who filmed the school building from above with a drone.



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This challenge is all about preparing your own FLOSN meal, including an entrée, dessert and beverage. However, the aim is to stay below 4 dollars a person. For this reason, I thought of using the same ingredients for more than one of the different meals.

I, myself, am a big fan of bananas and strawberries. Therefore, they will be part of my menu for sure. My menu involves ingredients like; almond butter, bananas, strawberries, lemon, avocado, spinach, walnuts, cocoa, honey, whipped cream and gorgonzola. I will try to buy all or most of these products organic and fresh – without any packaging. When purchasing the ingredients, I will be bringing my own bag to the grocery store. I will not accept or purchase a plastic bag from the store.

The ingredients will be purchased at the grocery store, Albert Heijn.

Hereby, the complete menu I designed. To give it a bit of irony, each dish' name makes use of alliteration. Tasty Toast has double T's, and Fresh Fluid has double F's.

Entrée: Tasty Toast

Ingredients: almond butter, slices of bananas on a toasted bread

Main: Sweet Salad

Ingredients: strawberries, avocado on a bed of spinach with a honey dressing and walnuts.

Desert: Banana Best

Ingredients: heavy whipping cream, cocoa (powder), sugar and bananas.

Beverage: Fresh Fluid

Ingredients: water, strawberries and lemon.

I went to the grocery store, and noted the prices of the products I would need for my complete menu. Adding all the prices up, I ended up with a total of 17.02 euros. Which means 4.25 euros per person. However, most products are bought in big amounts – bigger than needed for the menu. Such as the spinach or cocoa powder. These 'extra' from the products can be used another day, to make a delicious FLOSN snack.

Instead of sharing the meals with friends, I thought of an idea to have teams in our school share the meals they researched and designed with each other. One team loved the idea, and so we made a plan.

After school, we met up at my house to prepare the meals. We divided the dishes from our menu to prepare for everyone. This way, we could all share our dishes (and beverages) from our self-made menu's and enjoy the FLOSN meal! The teams prepared the following dishes;

- Guardians of the Environment will be preparing the entrée which is crackers with greens and the dessert, which will be bananas pieces with melted chocolate
- The Green Bat will be preparing the main dish, which is a sweet salad. And the beverage, which will be a 'fresh fluid' lemonade.

The costs of the dishes we made were 15 euros! Which means 3.75 euros per person.

We collaborated, and worked together to discuss about FLOSN foods, share our findings and ideas. PGC should not be all about the competition, and it was really nice experiencing this with the other team. Instead of competing, we worked together and shared this experience. I believe that in order to bring change, a team of motivating students can do more one motivated individual. This is exactly why this shared meal was so inspiring and motivating.

DAY 6: FOOD

DATE: 6th OF OCTOBER

CHALLENGE: GREENER

Besides this, we had also invited a friends to join the meal. Together, the five of us loved our teamwork, loved learning, making and eating the FLOSN foods.

We tried to avoid packaging as much as possible, as buy our products at bulk at organic.

Hereby, pictures from the ingredients bought and pictures from the grocery store.



DAY 6: FOOD

DATE: 6th OF OCTOBER

Below, the pictures of the food made.



CHALLENGE: GREENER

DAY 6: FOOD

DATE: 6th OF OCTOBER

CHALLENGE: GREENER

Hereby, a picture of the waste we produced together.



We have separated this waste, and recycled it at the recycling dump near my home. The fruit and vegetable waste will be used as compost.

It was an awesome experience, and the food was delicious! We did not expect the spinach to be tasting that good, in combination with honey, banana and strawberries.

And even though the desert does not look as fancy, it was very tasty as well!

Together, we have also made a video showing the progress and teamwork. It can be found on the YouTube channel of the Guardians of the Environment - <https://www.youtube.com/watch?v=MSb0GTWFIVg>

The leftovers were half a bag of spinach, one avocado, organic olive tapenade, 20 toasts (the last two ingredients are from the other team's menu), and honey. They will be used the next day for breakfast, lunch or snack!

DAY 6: FOOD

DATE: 6th OF OCTOBER

CHALLENGE: GREENER

Social media post of our meatless FLOSN meal!



urbatgurl our delicious FLOSN meal!! it was great working together with @guardiansoftheenvironment, sharing ideas and recipes from our menu's. I loved the salad, and my friends were surprised too - they didnt think spinach would taste this nice! its easy to make! cut strawberrire, bananas and avocados in small slices and pieces. put some spinach leaves in a bowl, and add the pieces. crumble some walnuts, and pour some honey on top. and youre done!! a delicious, healthy meal you wont regret. #FLOSN #PGC2016 @turninggreenorg

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In our school, or outside our school campus we do not have plants of flowers unfortunately. Therefore, no pesticides, insecticides or herbicides are being used.

There is non one in charge of our school's landscaping protocols, the only person whom would have authority is our head of school Mrs. Borges.

Our school promotes to have "a personal touch in a sustainable environment". To live up to this even more - besides organic or fairtrade products, sustainable energy consumption and meatless days – we should create a biodiversity-rich habitat by planting pollinator-friendly plants on campus.

We have huge green fields around the school, as it is located in a new area of the city of Almere. Our school building is near train rails, and further than that there are no buildings near (for 500m at least). These fields are owned by the government, but we do have a rooftop and short fences. School could purchase hanging plant pots to support pollinators. I do not know how to explain them, hereby visuals of what I mean.



These would be effective, especially because they are on the rooftop and no one will step on them or bike over them. It will also give a nice touch of color to the school, which is beneficial. They are also not very pricy, especially when bought in big amounts.

This could be a great way to create a pollinator-friendly environment with native plants from the Netherlands. Instead of pesticides, DIY alternatives could be used. I had investigated this for the greener challenge; using hot peppers with garlic or onions, orange peels with hot water and castile soap. There are many DIYs, however, student and staff allergies should be taken under consideration when they are being applied to the plants. Besides the 12 plants investigated in greener, vegetables and fruits could be grown and sold as well.

In school, we have an eco club. It would be cool if they took care of the plants in school as well. An awesome idea would be growing vegetables and fruits – and selling those to students. To provide them fresh and healthy crops. We could have our own little garden. In front of school, we also have a lot of grass and sand lying around. Perhaps, school could invest in another piece of ground to build a greenhouse to grow these crops. Besides it being beneficial to students, it will attract parents and publicity as we would be the first school to own a greenhouse. Also, it would add to the sustainability of the school.

I plan on proposing this to the head of school. Both ideas of the plants on the fences, and ISAlmere's greenhouse. It would probably take a year or two for the plan to finalize, but I do not give up easily. I think this idea would benefit the school and students in many ways. It would also attract publicity, and a good status for the school. I will be investigating into specific prices and possibilities. I have already found websites selling the pots for only 5 euros per piece.

Sources

- https://www.nationalebeeldbank.nl/shop/products/919319-bloembakken_aan_hek
- <http://www.tuinadvies.nl/tuinwinkel/product/753>
- <http://2dvxfm48odni22182s4bfu1x-wpengine.netdna-ssl.com/wp-content/uploads/2015/10/pollinator-toolokit.pdf>
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Fairtrade has an impact on farmers, whom grow the crops we consume. Such as coffee, coco, quinoa – BUT many farmers don't even know the products of the crops they grow, what they look like or how they taste. How is this fair?

This is what happened to the cocoa farmer, N'Da Alphonse. He has been growing cocoa for decades in Ivory Coast, but never knew what the cocoa beans were used for after. Ivory Coast is the largest exporter of cocoa beans in the world – but the farmers are not being treated fairly. They don't earn much, and they have no clue what “the white people” do with the beans.

“The life of a cocoa farmer is tough”, states N'Da Alphonse – he cannot afford a bar of chocolate. “To be honest I do not know what they make of my beans, I'm just trying to earn a living with growing cocoa. They make good food from them, but I've never seen it. I do not even know if it's true.”

This is sad. A hardworking farmer, working in the cultivation of cocoa, has no idea what the dry beans he harvests and dries are used for. I am glad that farmer N'Da Alphonse and his friends now are aware of Fairtrade. But for years, they worked hard for a very low wage. We take things like chocolate for granted, while many have not even heard of the term.

The first time N'Da Alphonse tasted chocolate, he could not believe something could be this sweet. He shared it with his fellow farmers, wife and kids. “So this is made from our beans? And white people love it?” said one of his fellow cocoa farmers. “Are you sure this is made from our beans?”

Fairtrade has given them a fair chance. Before, all they did was cultivating cocoa, they try to make a living from them to feed their families and themselves. Now, they are earning more and gaining knowledge on the products their cocoa beans are used to make from.

The video made me appreciate the things I have, the life I live and the opportunities I am given. These farmers work hard everyday, through tough conditions, and used to earn very little. Before Fairtrade, they had no clue, the farmers didn't even know what chocolate was; "what did you call it?" "chocolate".

Many people, including me, take small things such as chocolate for granted. They have been made with care and hard work – and this should be appreciated more.



The Green Bat

2 mins · 🌐

These cocoa farmers are tasting chocolate for the first time!

Hardworking farmers, in the cultivation of cocoa, have no idea what the dry beans they harvests and dry are used for. I am glad that farmer N'Da Alphonse and his friends now are aware of Fairtrade. But for years, they worked hard for a very low wage.

We take things like chocolate for granted, while many have not even heard of the term. Check out the full video of their story here:

<https://www.youtube.com/watch?v=woAG4tp90Dc>

#PGC2016 #FairTradeWorld Turning Green Dr. Bronner's



Sources

<https://www.youtube.com/watch?v=eXBLDSxfgxc>

<https://www.youtube.com/watch?v=woAG4tp90Dc>

<https://www.youtube.com/watch?v=Rcbal2PQrMA>

<https://www.youtube.com/watch?v=zEN4hcZutO0>



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The Conscious Living 101 (CL101) packet.

This includes; an introducing video; one video giving tips on becoming a conscious shopper; and one video mentioning the top 10 brands/shopping destinations!

I decided to make videos, instead of a letter, as nowadays more and more people get engaged with technology. Fortunate or not, it will be our future. Thus, instead of working against it, people whom are trying to make a change and have a voice should adapt to this. Therefore, my CL101 will be shown as a daily or weekly YouTube channel. Where I will potentially post tricks and tips on living a conscious and sustainable life. This is where I will be sharing my wisdom, the knowledge gained during the past 16 days and further into my PGC journey – and this would actually be a really cool thing to continue further with instead of only doing it for the challenge.

The introduction video includes a few facts on why a conscious living is important. It is where I motivate and inspire students to make better choices. I will also advice using these tips and tricks as a college student designing your new dorm. A fresh start, should mean a fresh life – thus healthy and sustainable. I have mentioned that I linked the checklist PDF below, but in reality I didn't do this as I don't know how. It is just to give an idea as to how I would allow students to access the checklist if I were to do this online.

Link to the video: <https://youtu.be/HjuAG-mxTX8>

The second video is all about being a conscious shopper. Ideally, I would have weekly tips and tricks videos. For this video, it will be the top 10 tips on how to become a conscious shopper.

Link to video: <https://youtu.be/9MZwbfuEV20>

The next video is part of the tips and tricks series. This time focusing on the top 10 brands/shopping destinations based on company's ethics and values. Ranging from food to clothes to beds.

Link to video: <https://youtu.be/v3Twxltuqgk>

DAY 16: HOME

DATE: 16th OF OCTOBER

CHALLENGE: GREENEST

Sources:

<http://www.made-to-travel.com/2012/10/08/fall-into-good-habits-ethical-shopping-101/>

http://www.bats.org.uk/pages/why_bats_matter.html

<http://www.batcon.org/why-bats/bats-are/bats-are-important>

https://www.youtube.com/channel/UCgjwtZNYjR_8zIFDsIPpww/videos

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In the Netherlands, fortunately, GMOs are forbidden. At least, that's what I thought...

“Since 2004 the Netherlands has required producers to indicate on the label if a food product contains more than 0.9% genetically modified ingredients. In this case the words “genetically modified” or “produced with genetically modified” are placed before the name of the ingredient. However, there few genetically modified products on the market in the Netherlands”.

BUT – “It is not necessary to indicate on the label if a product contains milk, meat or eggs of animals that have eaten genetically modified feed, Likewise, if cotton from genetically modified cotton plants no longer contains viable seed, this need not be indicated on the label”

This is stated by the Government of the Netherlands. I knew that if I researched official documents, I'd find out the truth. And it is BATSHOCKING. The following information is from the Library of Congress.

“According to a report on biotechnology in the Netherlands issued by the US Department of Agriculture (USDA) in June 2013, “there are no genetically engineered (GE) crops under development that will be on the market in the next five years.”[2] However, the Netherlands does import large quantities of GE crops and derived products”

“The main imported GE crops and derived products are soybeans from Brazil and the United States and soybean meal from Brazil and Argentina”

“the Dutch livestock sector depends on feed imports from third countries [that consist] mainly of GE soybean meal.”

If I understand all of this correctly, the Netherlands does not grow genetically modified crops but we are probably consuming GE crops imported from other countries, such as soybeans.

Besides this, there is a high chance of us consuming products from animals whom have been fed genetically modified foods. These facts shocked me, as I thought the Netherlands forbid the use of GMOs. Even though it must be mentioned in the label or ingredient list, like this;



I am shocked that with the advanced technologies in the Netherlands, and knowledge, we have not forbidden them from our foods. Even more shocking is that companies are not expected to write this when the animals have been fed genetically modified foods. Meaning we 'indirectly' eat genetically modified foods.

"Even animals ask for healthy food". An article states that a farmer in the Netherlands realizes that his pigs do not accept the genetically modified corn anymore. Neither do chickens of a farmer named Strilli Oppenheimer in South Africa. Only when they have no other choice, and are hungry, they will consume the GE foods.

In 2015, an experiment was done with genetically modified foods and organic foods by testing the effects on animals. More and more bad results are shown, and problems regarding fertilization, immune, accelerating aging, changes in major organs occur. Humans don't have the natural feeling to stay away from bad food, nowadays many consume junk food without thinking about it. But more food allergies, irritations and illnesses rise because of it.

There are some GMO-free regions in the Netherlands, but it is not forbidden or avoided everywhere. I have researched all of this because I was investigating three packaged food items I regularly

consume. I was going to mention how we don't have GMO foods in the Netherlands. This got me thinking, and got me researching. Now you see, some things are unknown when you don't look into official documents. People have opinions, many rumors go around. But what's important are the facts, science is all about facts, and as a student hoping to study in a scientific field I had to gain more knowledge and look into the facts. I'm glad, but also sad, to have found honest answers.

Three food items I regularly consume, are bananas (conventional), ham slices for on bread (conventional), and milk (conventional). I put conventional in brackets, because I can easily switch these to organic and make sure it is chemical-free, animal friendly and made without GE.

The ham slices and milk do not mention genetic modification in the ingredients lists, but with the research done I can assume that the cow has probably been fed GE foods. In the Netherlands, no genetically modified animals are used for foods. But, 90 to 100% animals are fed GE foods according to 'Duurzaam Thuis'. Meaning that when I consume the meat or milk – I can indirectly consuming GE foods too.

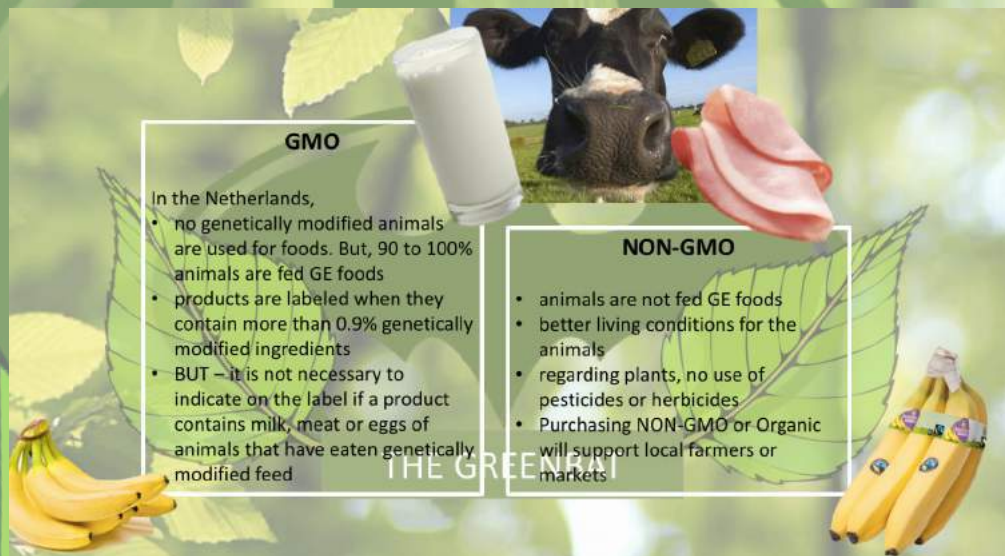
The NON-GMO version in this case would be buying the products from local farmers or markets, ORGANICALLY. This ensures me that the cow from which the milk is produces, and the meat slices, has not been fed unhealthy foods or has not been treated badly. It might be pricier but it doesn't have to be.

I can bring my own container for the meat slices, or jar for the milk. That way the farmer can reuse his/her container, and I will have zero waste.

Especially after the research done on GMOs in the Netherlands, I will be more careful when purchasing foods. Next time I do groceries (or my mom) I will be purchasing organic alternatives or from local farmers. That way I can support them, and eventually I will be cheaper off (as learned from previous

assignments/challenges and research.)

Hereby, a visual side-by-side comparison of the three food products I can easily purchase organically which is better for my health, the animal's health and the environment. As mentioned in one of my reliable sources, 'Only if the product is certified organic, you can be sure that no genetic engineering had taken place'.



Facebook post:



Sources

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INTERNATIONAL SCHOOL OF ALMERE
THE NETHERLANDS

As mentioned in the overview, 'cotton is one of the fashion industry's most used materials, and also the most pesticide-intensive crop on the planet.'

Some facts I thought were interesting, and shocking "It's estimated that one pound of cotton requires at least one-third of a pound (136 grams) of pesticides. To put this into perspective, it takes half a pound (227 grams) of cotton to make your average t-shirt. Plus, cotton requires more water than most other crops – to produce one pair of jeans alone takes more than 1,800 gallons of water. All in all, the \$3 trillion fashion industry is the second most polluting industry, just behind oil."

And then to think that the hard working people making my t-shirt from conventional cotton, have to work with this pesticide intensive crop and pollution.

This got me thinking about my sweaters and shirts made from cotton. Today, I am wearing a half sleeved t-shirt, and a dress-like clothing piece.

The shirt is

- From the Zara (as well as my shoes)
- Made in Portugal
- 66% cotton, 31% polyester and 3% elastane

The dress is

- From the C&A
- Made in ???
- 97% polyester, 3% viscose

After doing some research, I came across articles on how Zara makes children work for the clothes and shoes they sell. "Children across the city of Felqueiras in northern Portugal have been found to be working long hours as they working on shoes and clothes for the internationally renowned clothing company Zara". The children, as well as adults, as living in horrible conditions; "families were forced to share cramped quarters in a mess of sewing machines, needles, threads and children. The places were dark

without lighting to sew and no ventilation.” Many work from 7am without a break until as late as 11pm. Its insane...

Not only do they work in horrible conditions, they do not earn enough for the hours they work! “The immigrant workers, one of whom was reported to be just 14, were living in dangerous and unhygienic conditions, forced to work 12-hour shifts for between £95 and £176 a month.”

And this is only what I found on my t-shirt. The dress label doesn't even mention where it is made!

The facts are shocking, and many are not aware of whom our clothes are made by and in what conditions. As a way to symbolize that we need to pay more attention to what clothes we are buying, and where they are from, I wore my clothes inside out to give attention to the tags.

By researching my shirt's tag, I learned more about its impacts on the people who produce it and the environment. I am saying NO to these brands, and will not support them further. Instead, saying YES to supporting Fairtrade!

When my mom came downstairs, she looked at me weirdly. “You know your outfit is inside out, right”. I replied, yes, and explained her about todays challenge. She was shocked, and proud, that I gained so much knowledge during this PGC journey. I told her about the facts I learned, and she didn't believe me at first.

Because how could hundreds of workers benefit from a 2 euro clothing piece. As she was going to work, I couldn't convince her to wear her shirt inside out. But when she got home, she surprised me. She usually goes upstairs to change into her comfortable clothes – and I am proud to say that she wore her shirt inside out.

I also walked my dog while wearing my clothes inside out. Many bikers passed, giving me weird faces. I continued walking, with a smile.

Facebook post:



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Sources

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As mentioned in green, sustainable clothing is also very important to keep in mind! “Many of the same harmful chemicals found in personal care products, cleaning supplies, and food lurk in our workout clothes and gear too.”

Jogging is something I like to do. With some music, or without. I like running through the forest, especially in the morning when the birds are making sounds. Also, I like dodging trees and jumping over branches. It keeps me alert and motivated, in some way. Lately, I don't jog much. But when I do, I mostly have a routine I follow. In which I jog a big, then walk, then jog, spring, jog, walk and repeat. Sometimes up to an hour, depending on how tired I feel.

For this activity, I would need good running shoes. I will defined not purchase them at Zara – where I learned that children stich the shoes up for long hours and little money! I would need comfortable shorts and shirt to run in. A sports bra would come in handy, too. I don't necessarily need gear, but I could include jumping rope in the routine. Making it more powerful, and requiring more energy. All of the items chosen are great for the environment, and the impact on the people – whom worked for it and whom purchase it.

Jumping rope

- By Greentoys, 10.99 dollars
- It is ecofriendly, and made with 100% cotton rope and 100% recycled plastic handles. Also, it has no BPA, phthalates or PVC.
- <http://www.greentoys.com/green-toys-jump-rope>

Reusable water bottle

- By Klean Kanteen, 20.95 dollars
- Made from stainless steel, BPA-free alternative to plastic. They are high quality, durable
- <https://www.kleankanteen.com/collections/kanteens/products/wide-mouth-27oz?variant=860251119>

Energetic snack

- By Cliff Bar
- 1.99 dollars for 1 bar, 21.48 dollars for 12!
- Comes in recyclable and upcycle-able wrapping. Healthy, organic energy bars, great for exercise; gluten-, soy- and dairy free.
- <http://shop.clifbar.com/Kits-Organic-Fruit--Nut-Cashew/p/CLIF-014214&c=ClifBar@Kits>

I found an awesome eco-friendly sports web shop located in the Netherlands. They sell sustainable sport clothes for dance, yoga and fitness. They started in 2011, and is called Souplesse Oblige.

Pants/shorts:

- By Souplesse Oblige, 45 euro
- Beautiful and comfortable yoga pants. Made from organic cotton and elastane.
- <http://www.sodancewear.be/a-39770439/stockverkoop-laatste-stuks/wellicious-yoga-pants-nude/#description>

Shirt:

- By Souplesse Oblige, 20.90 euro
- Simple and comfortable top. Made from recycled polyester and organic cotton.
- <http://www.sodancewear.be/a-39417527/stockverkoop-laatste-stuks/alternative-racer-tank-top-pacific-blue/#description>

Sports bra:

- By Souplesse Oblige, 17.90 euro
- Tight fit, and adjustable. Made from organic cotton and elastane.
- <http://www.sodancewear.be/a-25966067/stockverkoop-laatste-stuks/sport-bh-van-freddy-in-zwart-en-geel-l/#description>

Another interesting shop, FYE (for your earth). It is a French brand, and they make shoes from organic materials. The heel, the toe, the laces and sole are all made from organic materials. For the upper side and the lining, recycled polyester is used. Besides this, no chemical paint and glue is used for making these durable shoes by FYE. ALSO, yes it gets better, 5% of the sale is donated to projects aimed at promoting health, safety and education.

Shoes:

- By FYE, 80 euros
- Eco-friendly, vegan shoe. Made with recycled materials & natural fibers, and organic cotton laces.
- <http://www.veganwares.com/shop/fye-opale-sneaker-mid-greyelectric-blue/>

Visual:



How to exercise
sustainably

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I do not see myself as a true hero yet, but I believe I have the potential to be one for the environment. To provide the future generations a better planet.

To me, a hero is someone who inspires others, with confidence and honesty on a bigger scale. Throughout this month, I have inspired others to follow my journey to a conscious lifestyle. For example, my friend Nikki to go meatless once a week and purchase more organic products. My mom regarding cleaning products. My dad regarding personal care products, and the risk of conventional shampoos. Students in my school, about non-GMOs, fashion, biodiversity, carbon and water footprint, zero waste, Fairtrade, and more. Parents and guardians about energy consumption in our school through the newsletter.

I have received compliments from students whom follow my work, and inspired some to change an aspect in their lifestyle to better their footprint.

I do have a dream, to become a hero. One that helps not only in her community – but abroad. Changing people's lives all around the world, and in specific for people whom cannot afford to do so. This is my goal. To provide a sustainable and conscious living to these people. This is what I am passionate about, what I am striving for with my education, participation with PGC and future job.

I have learned that I can change the world. Each day is important and precious, each day results to change for the future. All of these themes are relevant, is what I learned. Each and every one of them include important facts to keep in mind. I have learned that living sustainably can be less expensive than I expected. However, for the communities in less fortunate cities and countries – this amount is too high.

Farmers working for crops don't get enough money for their living. But Fairtrade provides them better wages, a better environment to work in and education on how to grow the crops better – without the use of chemicals; pesticides or herbicides.


However, many are not farmers, many cannot afford to start a business, many rely on the government. The gap of rich and poor keeps getting bigger, and we must strive for more equality.

I got inspired by a volunteering project I joined last year. InSite, by the organization Reckoning. I fundraised 1600 euros, and joined a trip to Lethabong, South Africa. Here, I supported the community for 10 days by building houses, painting walls, fixing rooftops, cementing floors, preparing gardens for fertilization and more. The community here, this experience was life changing to me. This is when I opened my eyes, and started being grateful for everything I have in my life.

The people there are bright, many have big dreams for the future. Many want to provide their kids with healthy foods, and medicine to cure them. But they just do not have the money for this. Prince, one of the guys I met there, has dreams to become a financial accountant. He spends his time helping the community, and studying for his dream job. He works very hard, but realistically – the government does not care about these people. It makes me sad that the system is so corrupt. We are ignoring and forgetting the people that matter, we are walking away from equality in the world. I wish to change this. These people should be able to get what we take for granted. The clothes trashed, can give them the biggest smile. There is so much we can do for them.

What I want to focus on is providing them the tools and accessibility to a greener lifestyle. Providing them cheaper and healthier medicine. I am passionate about science, and chemistry – and wish to combine these two aspects to bring the most potential out of me. One idea I had was becoming a biochemist, working on more affordable, and sustainable medicine. I don't want to become popular, I don't care much about earning a lot of money, I don't need to be rewarded for what I want to do. All I want is accomplish this dream of mine, I want to be able to provide these people access to what we have. We have too much of stuff which they did not even know about, we waste money while they work hard to earn little. This must change, I want to bring this change.

Social media posts:

 **The Green Bat**
18 mins · €


Humans of the Environment

1/2 "Last year, I experienced something I wish I could take out of my memory and display it in a video for everyone to see. I went to Lethabong, a settlement in South Africa with InSite. This is when I realized how corrupt our system is, how badly we need to strive for equality, how we need to work together for a better future"

"How so?"

"The next generations need this from us. We are destroying mother nature; we are destroying the connection between us humans. Rich or poor, we are all human beings and our actions have consequences for each and everyone on this planet in the long run. This must change, and I hope to inspire others about the future I see for us. Where there is no such thing as the rich and poor gap, where everyone is able to live a sustainable life. Where we are aware of the consequences of our actions on the environment. We are polluting the air, contaminating the oceans and on top of that destroying humanity. We are destroying the connection with each other, while we should be working together. This reminds me of something Prince Ea said – 'every tiny stone thrown in a pond can create tremendous ripples'. Imagine what a group of stones can do!"

Turning Green #PGC2016 #ecohero



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 **The Green Bat**
Just now · €

Humans of the Environment

2/2 "What exactly are you hoping to change?"

"I am passionate about chemistry and biology, and hope to relate that with my vision. Just an idea for the future; developing medicine using organic products, and providing an affordable price for everyone to access. This is one of the many ideas I have. I am still trying to figure out how to combine all the ideas and thoughts into one big movement. There is so much we can do, so much that needs improvement and correcting. This is still a struggle for me, but I hope to make this my future. To not only talk about bringing change, but being the voice behind it, inspiring others to join me in this yet-unknown big movement"

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Susie's story is pretty interesting. "She created the world's first organic cotton tampons and pads in 1989 after learning about the harmful effects of conventional sanitary protection on women's health and the environment."

Inspired by a documentary, she started looking into the facts more. She learned that cotton fields are sprayed heavily with pesticides. She wanted to change this, and worked hard to make the first cotton tampon and pads. Nactracare.

Today, I participated in the 'PGC Marathon Days'. In 30 minutes, my friends and I brainstormed ideas and I quickly typed them up while we were sharing and laughing. Kework, Arka, Josh, Shenelva, Tirza, Dominick, Asman and I thought of different sustainable products and companies. Here are some of the (rough) ideas:

More sustainable batteries. Reusable batteries exist, you can recharge them and use them again. However, batteries are barely recyclable. Many just throw them along the landfill trash. A solution should be made, a battery made from recycled or recyclable materials.

The same goes for light bulbs, however energy efficient ones do help the environment and are an alternative to conventional ones.

Clothing is an example mentioned, we do have organic alternatives. However, these are expensive! Perhaps a business can be started, which does not work with profits. Perhaps a kind or non-profit organization, selling clothes for the prize they have been made for. The prize paid to the people whom made them, will then be the selling price. The shipping costs can be from sponsors or donators. This is a risky business, but could have a potential in the world.

Phones are really unsustainable, they use metals and they can only be mined in certain places in the world. For smart phones, as far as my friend knows. An alternative would be designing an alternative with more sustainable materials.

Packaging around products. There are products surrounded by recyclable or compostable packaging, however a lot products are packaged in plastic – one of the reasons being that it is transparent to the consumers. An alternative to transparent packaging would be buying products at bulk of course! Another idea would be selling products like salad in containers! This would also support zero waste as they will be reusing the boxes for other foods they will be consuming. It would cost more, as you would be paying for the container too. But it would motivate people to reuse it in other ways, too. Other ideas can be thought, with biobased, biodegradable and compostable properties. We did not get into this further, but do think it has some potential.

Ikea works a lot with wood, and more with plants. It is a big company, selling things from furniture to kids toys. Asman mentioned his project on Ikea, where he investigated ways they could be more sustainable. They need to think of an action or change, in which they can attract people to bring the products they purchase back. This way, they can reuse the products and repurpose them. For this, they would need less recourses and be more sustainable. This trick could benefit them to be a more sustainable business.

The building is quite sustainable, they use energy efficient light bulbs and have huge solar panels on the roof. However, the company is big and so is their store. It is open everyday for people to come and get a feeling of the furniture and beds sold. They could be more sustainable, however, by being open only in weekends for example. And providing a detailed online web shop in which customers can order and purchase products during the week.

Raising awareness on better alternatives is something Kework mentioned. This isn't necessarily an alternative for a product, but proving people with a guide on switches they can make regarding a sustainable living. For example, a guide on food. Informing people on the switches they can make, such as replacing rice with quinoa, soda with tea, vegetable oil with coconut oil, cream with yoghurt, croutons with almonds, and much more. These are switches which

Regarding solar energy, they are quite expensive. We could not figure out an alternative, but this is something to think about. After the 30 minutes, I mentioned a project I worked on last year for INESPO (International Environmental & Sustainability Project Olympiad). I designed a heater made out of recycled materials. Soda cans, wood from a drawer, tubes, and parts of a vacuum. I designed a passive heating system. A heater, using solar light to heat up the inside of the box and by convection, heating the room. There is a lot I can say about this project. It is an alternative for heaters, perhaps could be used during the mornings and afternoons during winters. Reducing carbon emission and energy consumption. This project got me to the international round of INESPO, together with 9 other teams chosen as finalists out of the 70. It was an awesome experience, and I got to participate in LIYSF (London International Youth Science Forum) because of it. Where I learned more about sustainability, as well as scientific fields and experiments from professors, doctors, researchers and even the Nobel prize winner in chemistry.

I was moved with the compassion my friends talked with. They seemed to get really interested into the topics discussed, and we shared tips and tops. I loved spending time with them, and thinking of ideas to better the environment – better the world.