How an individual can make an impact

For a sustainable future, people should not cause over 2 tons of CO2 per year. On average, a German produces 11. In order to lower your personal CO2 footprint, it is important to understand how high it is, and what factors go in to it. To do so, I recommend the calculator by WWF:

https://footprint.wwf.org.uk/#/

The calculator shows that there are four main factors that decide how big a persons carbon footprint is: Diet, travel, housing and consumption. For the average German, diet makes up 15% of their footprint, travel 23%, housing 25% and consumption 25%. In the following, I will analyze each of these aspects for those behaviours with greatest impact on our CO2 footprint.

Diet

Kilograms of greenhouse gas emissions per serving
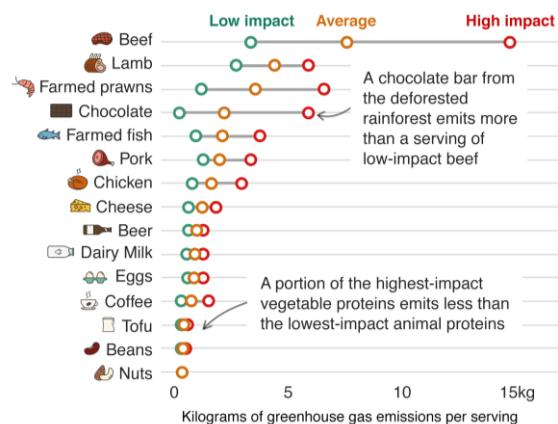
Source: Poore & Nemecek (2018), Science — BBC

-A meat-free diet is one of the most influential ways an individual can lower their CO2-emissions
-The emissions of food can vary, depending on how environmental-friendly it was produced
-It's important to buy food that is in season.
-> In winter, tomatoes from Spain are better for the environment than tomatoes from Germany, beacause they don't require heated greenhouses.

Travel

Carbon Intensity of Travel: g CO2e/pkm
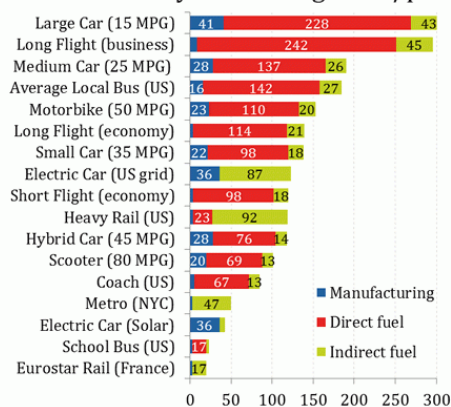
Note: All figures are grams of carbon dioxide equivalents per passenger kilometre (g CO$_2$e/pkm). Figures include direct fuel emissions from combustion, indirect fuel emissions from production and vehicle manufacturing emissions. Average loading is assumed for each mode of travel, 1.6 for all cars and 1 for motorbikes. Miles per gallon (MPG) is on road efficiency in US gallons. No radiative forcing multiplier is used for air travel. The electric car is assumed to achieve 200 Wh/km.
Sources: DEFRA, EIA, EPA, GREET 1.8, Chester & Horvath — Shrink That Footprint

Emissions from different journeys
Emissions per passenger for journey

London to Madrid

-Travel and transportation is responsible for 23% of a persons CO2-emissions
-We can not always avoid travel, but we can inform ourselves about the possibilities.
-In Germany 57% of people use their car daily while only 20% ride their bike every day.
-When travelling, you should avoid flights, especially short ones, and rather travel by train.
-Emssions caused by train can vary, depending on the type of train and how its powered.

Sources:

https://www.theguardian.com/environment/2014/jul/21/giving-up-beef-reduce-carbon-footprint-more-than-cars#maincontent [16.04.2020]

https://www.bbc.com/news/science-environment-46384067 [17.04.2020]

https://www.bbc.com/news/science-environment-49349566 [17.04.2020]

**Can individuals make a difference?** – Handout - Gregor Rommelspacher – 21.04.2020

Housing

25% of a persons consumption are caused by
their electricity use and heating.
In the following are some tips how you can lower
your CO2-emissions. They are sorted from sorted
from easy to high-effort.

CO₂-Pro-Kopf-Emissionen Deutschland:

Mobilität 23% · Ernährung 15% · sonst. Konsum 25% · Infrastruktur 11% · Strom 7% · Heizung 18%
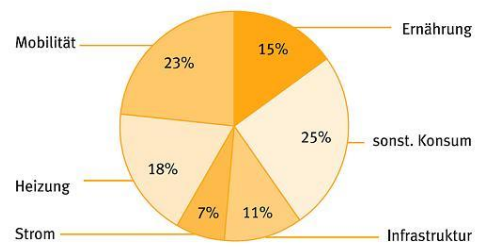
-Unplug chargers - they still use energy, even if there is no device plugged in
-Turn down the heat in your house by a little bit
Streaming videos causes 300 million tons of emissions annually
-Watch shows and movies together instead of alone
-If you don't want to watch the music video, stream music from apps like Spotify, not from YouTube

-There are water saving taps or shower heads, which will lower your hot water waste
-You can buy reflective panels to put behind your radiator. They will keep the heat from escaping
through the walls

-Isolating walls, windows and doors will stop the heat from escaping more effectively
-Solar panels are a great way to produce green energy at home
-> The changes with the biggest impact are also the most expensive ones. However, they will also
save you the most money in the long run.

Consumption

On average, a quarter of a German's CO2 emissions will be caused by their consumption.
-A single t-shirt causes 2,3kg of CO2
-A smartphone causes around 47kg

Problem:
-We dont have to face the consequences of our consumption
(Germany ships a lot of our waste to poorer countries, droughts and floods have an higher impact on
under-developed countries…)
->Out of sight, out of mind

We have to remind ourselves that our consumption hurts our planet and try to limit it!

Conclusion:

My aim was to show that every individual has the power to reduce CO2 emissions. Nevertheless, one
individual will not be able to make a significant impact on the environment alone. That can be
achieved when a large number of people collectively apply the small measures described above.

Sources:

https://www.theguardian.com/environment/2010/jun/21/overconsumption-environment-relationships-annie-leonard
[18.04.2020]

https://www.youtube.com/watch?v=pY6fAYkscTY [18.04.2020]