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Carbon Footprint analysis

The following report describes two calculators that were used to measure my CO2 footprint. The results are presented and brief analysis is given.

WWF Footprint Calculator:

The first calculator was designed primarily for UK citizens and as such is most accurate for people living there. The overall experience is very intuitive and they also provide some insights into their methodology. The survey was designed by the WWF-UK, with participation of Universities of York and Leeds.

I tried to provide the most accurate information possible, however the calculator assumes that a person lives in UK for travel estimation and that he is staying in one place for whole year. That is not the case for me and other PERCCOM students. One thing that differs in this calculator is the way they account governmental policies as additional emissions per person.

YOUR TOTAL ANNUAL CARBON EMISSIONS
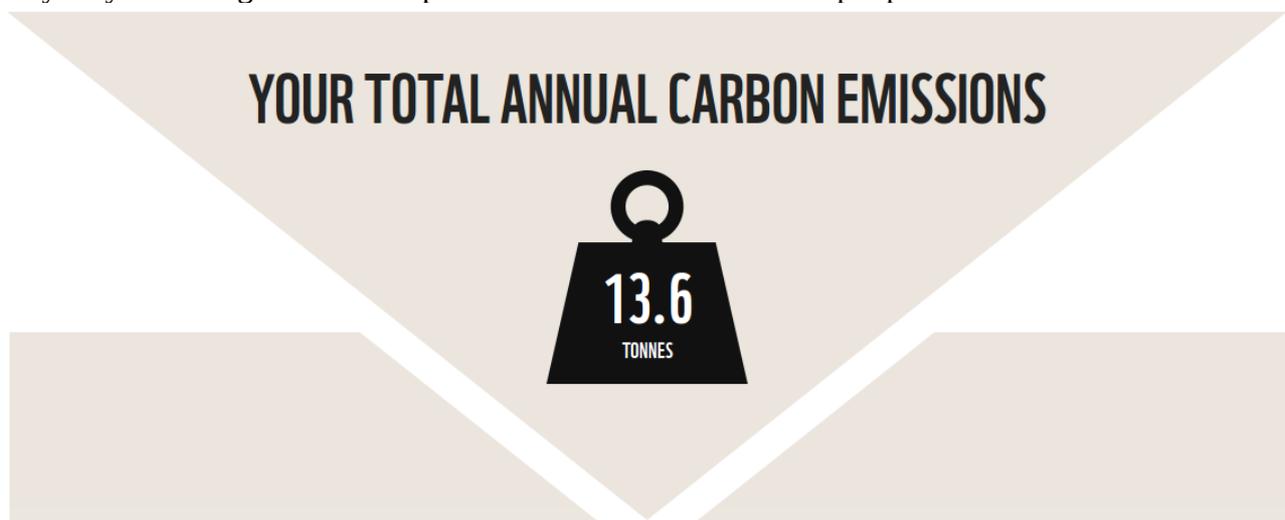
13.6 TONNES

My total result was calculated to be 13.6 tonnes of CO2 annually. This is quite a lot considering I am not a heavy consumer in terms of both food and other things. The breakdown with some tips is presented below.

YOUR CARBON BREAKDOWN

How your footprint is measured and tips on how you can
make improvements to reach the targets.

FOOD 23%	TIP	BUY MORE SEASONAL FOOD.
HOME 46%	TIP	CHECK YOUR HOUSE FOR INSULATION AND DOUBLE GLAZING.
TRAVEL 26%	TIP	TAKE UP CYCLING, CARPOOL, OR WALK TO WORK.
STUFF 5%	TIP	RECYCLE AND BUY SECOND HAND.

+ 3.06 TONNES GOVERNMENT EXPENDITURE

As I am renting my housing I am not entirely aware of any energy efficient measures installed. It is the biggest category contributing to my CO_2 emissions. I cannot say for sure whether this data is accurate as I have to move to different countries each 4-5 months and all of them have different composition of electricity market and construction standards.
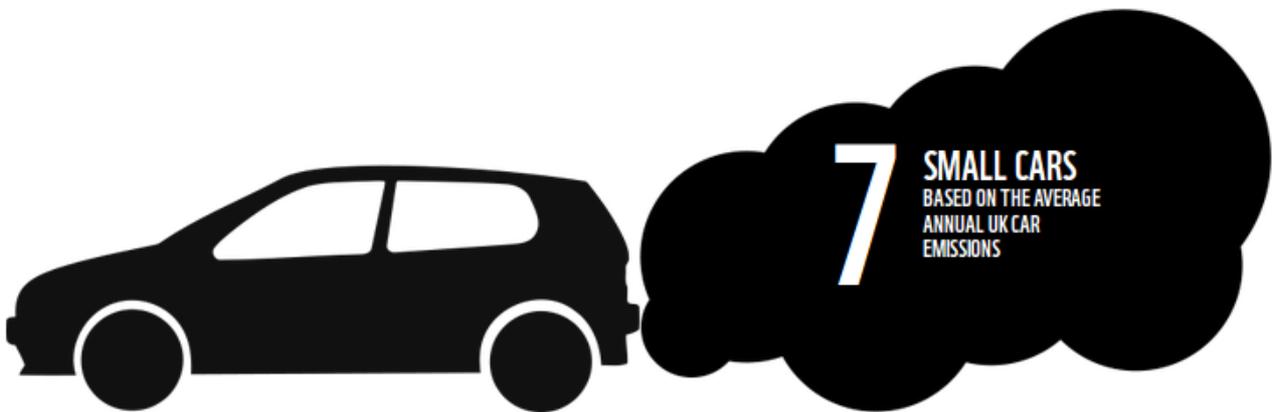
I was glad to see the feature that shows participation rates that might motivate people to use some of the tips proposed by the website in order to reduce their footprint.

SHRINK YOUR FOOTPRINT

JOIN 69,520 OTHERS
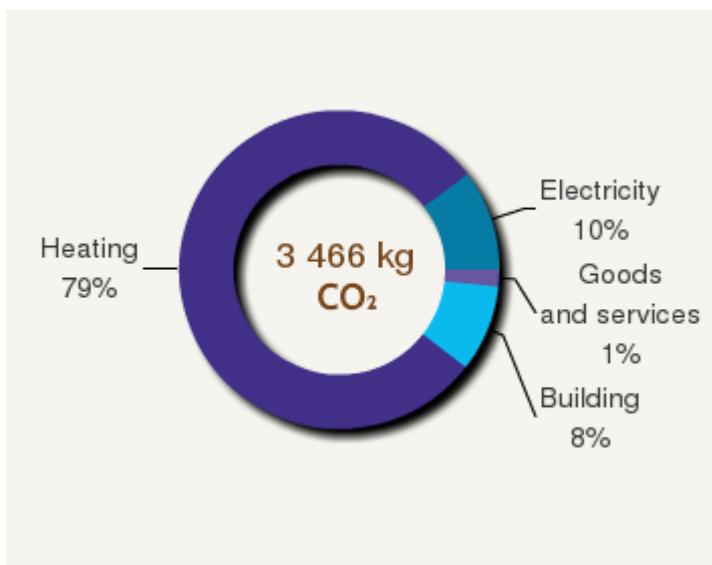
VIEW OUR TOP TIPS TO SHRINK YOUR FOOTPRINT

Other features of interest include conversion of my CO_2 emissions into equivalent flights and cars.

MEDIUM HAUL FLIGHTS 14 BASED ON FLIGHTS LONGER THAN 5000KM

LHR > ATH

SMALL CARS 7 BASED ON THE AVERAGE ANNUAL UK CAR EMISSIONS

SYKE calculator:

Unlike previous calculator, this one was designed by a governmental organization, namely Finnish Environment Institute. Below are pictures of sections existing in this calculator. They include Housing, Waste, Food, Mobility and Consumption. Each section has its own forms that need to be filled out. Unlike previous calculator it asks for some specific numbers such as amount of meat consumed or distance traveled. It also provides options for estimates that are made based on statistical data from the region that user indicates as his.
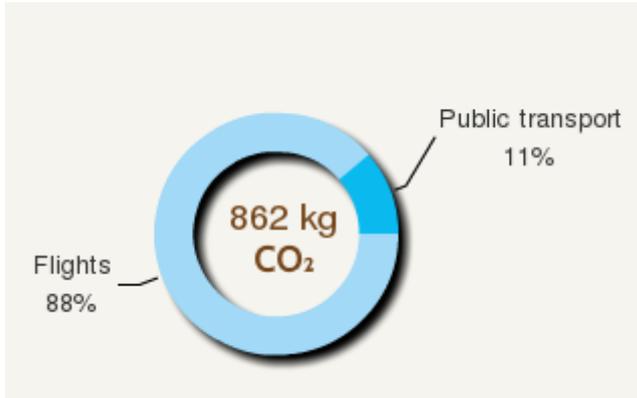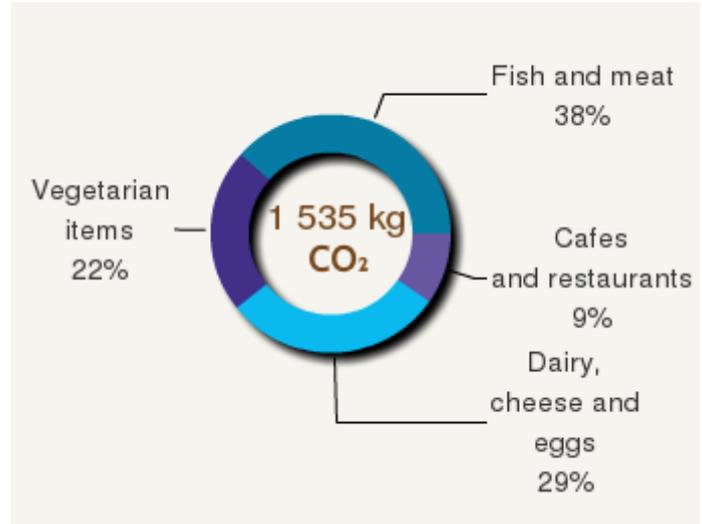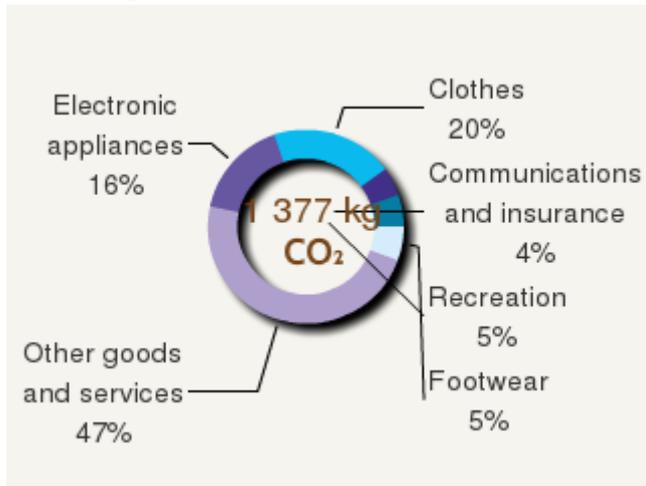
House energy

Heating 79%

3 466 kg CO_2

Electricity 10%

Goods and services 1%

Building 8%

Waste

114 kg CO_2

Mobility

Public transport
11%

862 kg
CO₂

Flights
88%

Food

Fish and meat
38%

Vegetarian
items
22%

1 535 kg
CO₂

Cafes
and restaurants
9%

Dairy,
cheese and
eggs
29%

Consumption

Electronic
appliances
16%

Clothes
20%

Communications
and insurance
4%

1 377 kg
CO₂

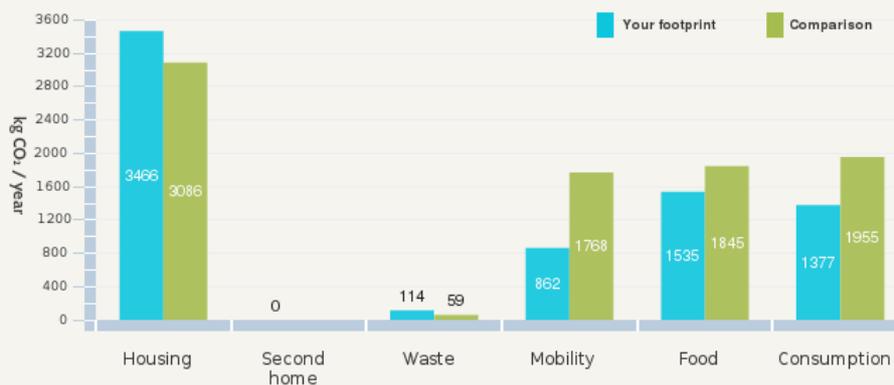Recreation
5%

Other goods
and services
47%

Footwear
5%

Your carbon footprint is **7 354 kg CO₂ per year**   Share on Facebook   Share on Twitter

When you are satisfied with the accuracy of your calculation, save the result. Please register if you wish to see your result history and track your progress.

Your carbon footprint by category   Compare with

Your footprint   Comparison

kg CO₂ / year

3600
3200
2800
2400
2000
1600
1200
800
400
0

Housing 3466 3086
Second home 0
Waste 114 59
Mobility 862 1768
Food 1535 1845
Consumption 1377 1955

All respondents

Average Finn

Respondents with the
same family size

Respondents with the
same postal code

Save footprint

This time the result was much less only 7.3 tonnes of CO2 per year. The biggest category was once again the housing. In this case as well a lot of information provided by me was approximate because of the lack of knowledge as a temporary tenant. The survey was divided in sections with small tips given for each section on reducing footprint. The tool allows you to save your results compare them with national average, average of the same sized household and the data collected from your region. Thus it is a tool that can be used extensively to collect relevant research data and to promote awareness.

Conclusion

Having used both calculators the discrepancies in numbers could be attributed to the fact that the way energy is produced in UK and Finland differs greatly and associated calculations are different. The calculator provided by the Finnish Environment Institute is quite sophisticated and, if data is available can produce very precise results. On the other hand the tool created by WWF is much more friendly for a general user and has many in-built features that motivate people to reduce their footprint as well as telling them small ways of doing it. Both surveys provided option of sharing your results on social networks (Facebook, Twitter). This is also can be used in order to collect more data and increase awareness.

From my perspective the purpose behind design of each tool was different. WWF tried to attract attention to the concept of personal footprint for people who are not really aware of that and did not focus so much on exact tidbits of data provided basing many calculations on statistical averages or assumptions. SYKE on the other hand built a tool that can be used by external researchers in order to collect data related to personal footprint. Both tools are very limited in that they are accurate only for their respective countries.

The results provided for me are far from accurate simply because they assume me being a permanent resident, at least for one year of either Finland or UK. This shows again lack of universality of these calculators. However, assuming they are filled out by intended audiences I expect the results to be more accurate in case of SYKE calculator, provided all input data is given correctly.