

How do **WE** affect the Earth?

Global warming and our contribution: a talk for The Abbey School



Andrew Nind

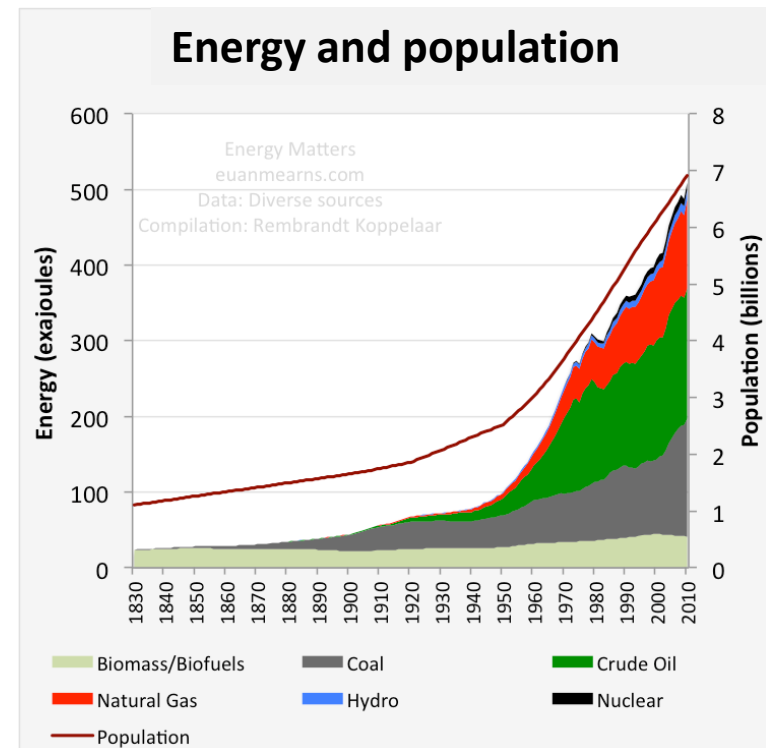
26 February 2016

100 years ago ...

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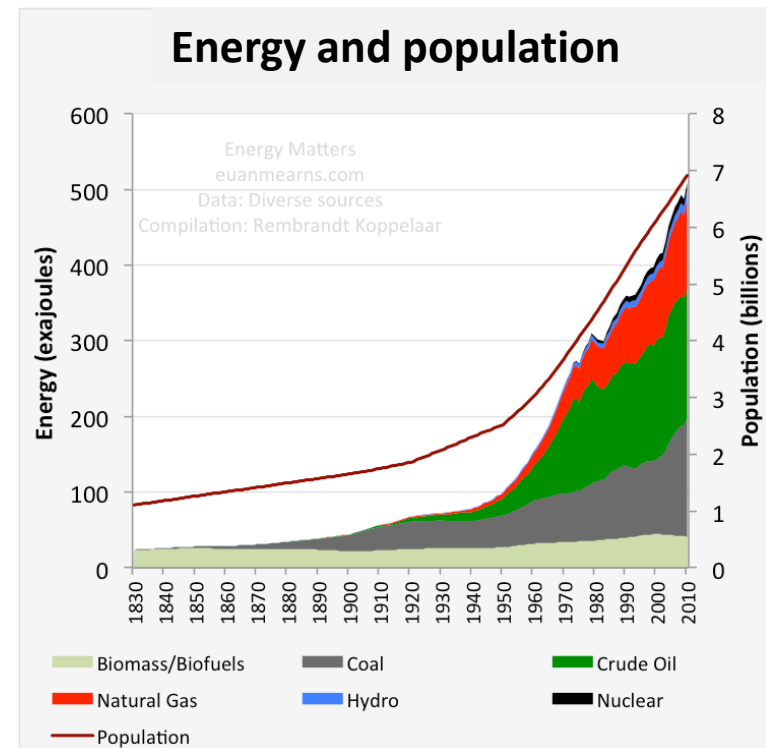


Source: UN data, Vaclav Smil

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- ▶ ... human beings **could not control the Earth:** its forests and oceans, animals, temperature.

Source: UN data, Vaclav Smil



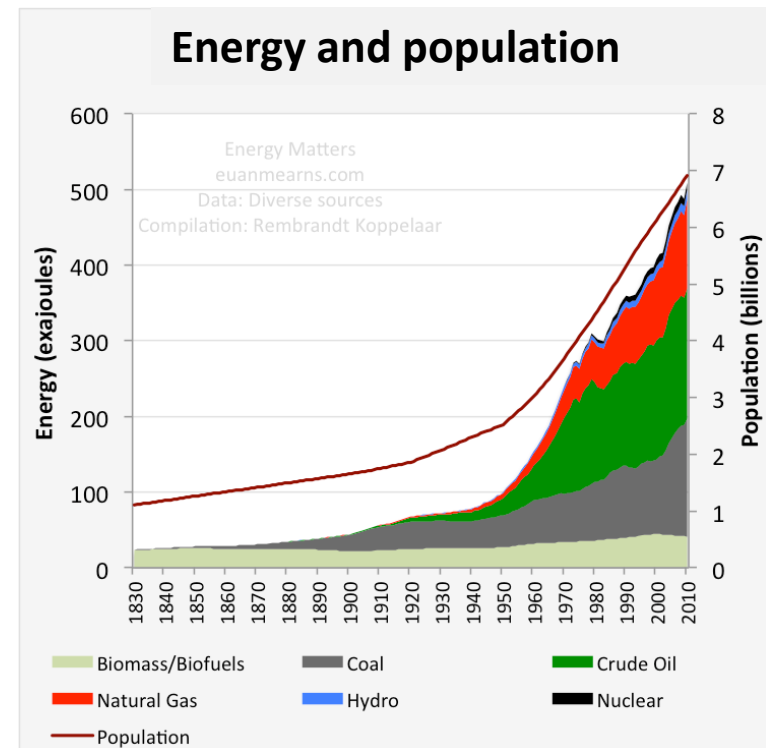
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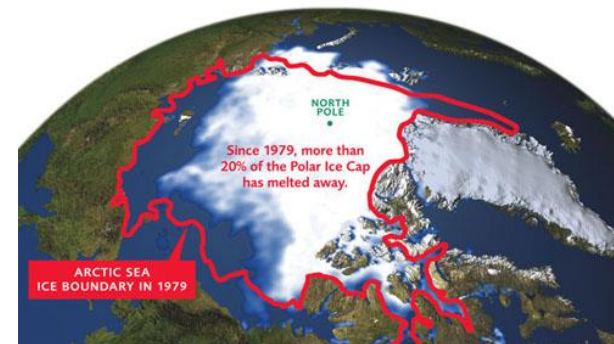
- ▶ **Today, we can**

Source: UN data, Vaclav Smil



Evidence of human impact

- ▶ Great Barrier Reef – 50% loss in 30 years
- ▶ Arctic Ice Shelf – 20% loss in 30 years
- ▶ Amazon Rain Forest – 10% loss in 15 years

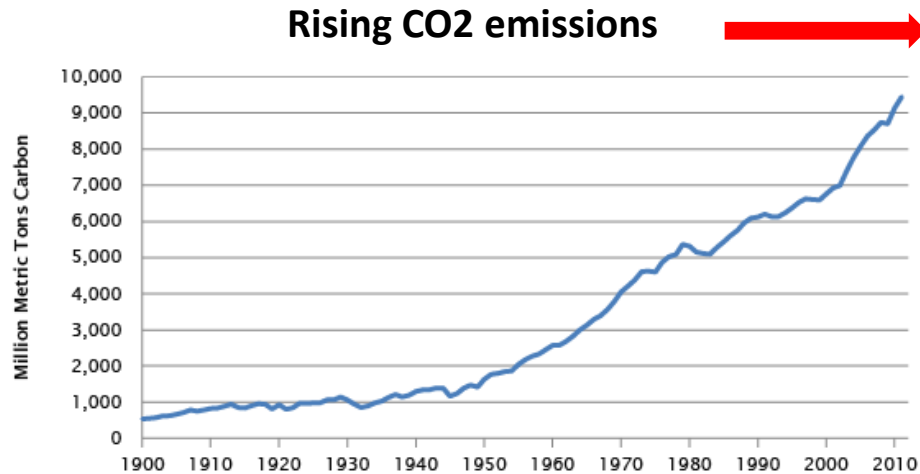


Source: David Attenborough, NASA, World Wildlife Fund

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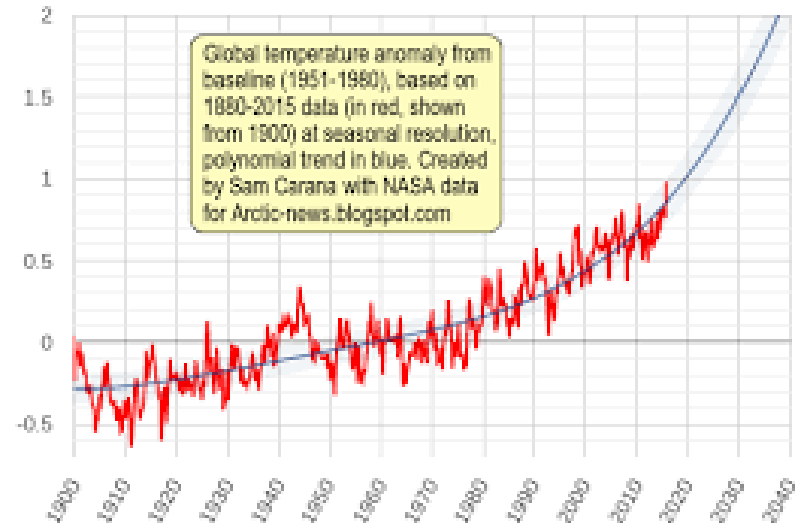
► Climate change

- Human beings pump **greenhouse gases (GHG)** into the atmosphere that warm the planet:
 - CO2 and methane
- Scientists are worried about a 2 degree rise from 1951-1980 average
 - We are halfway there



Source: US Environmental Protection Agency 2015

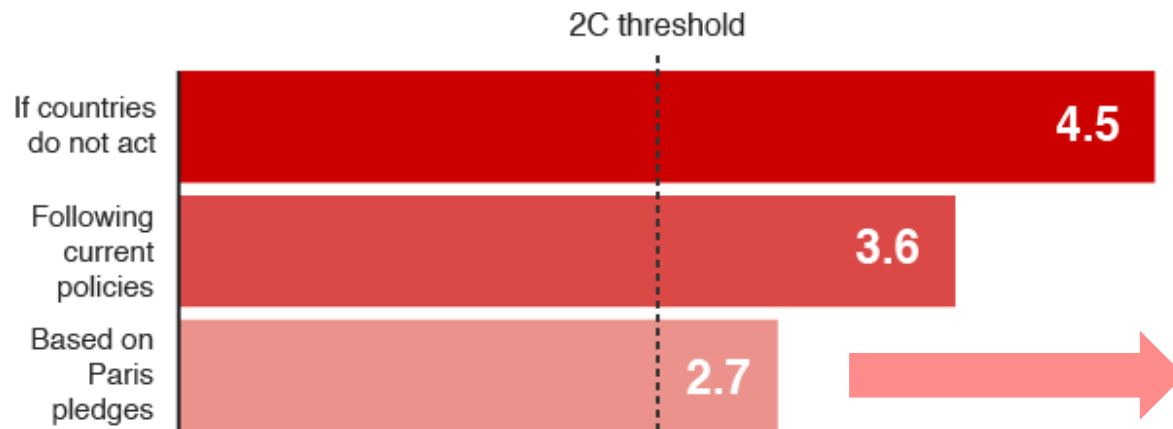
A temperature rise of 1.5°C could be reached in 2024



How do we affect the Earth?

- ▶ **Political promises will not prevent dangerous climate change**
- ▶ More storms, droughts, land covered by rising seas, loss of jungles and animals, ocean acidity and loss of fish, growing deserts and famine

Average warming (C) projected by 2100



Source: Climate Action Tracker, data compiled by Climate Analytics, ECOFYS, New Climate Institute and Potsdam Institute for Climate Impact Research.



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How do **WE** affect the Earth?



TRAVEL



HEATING



ELECTRICITY

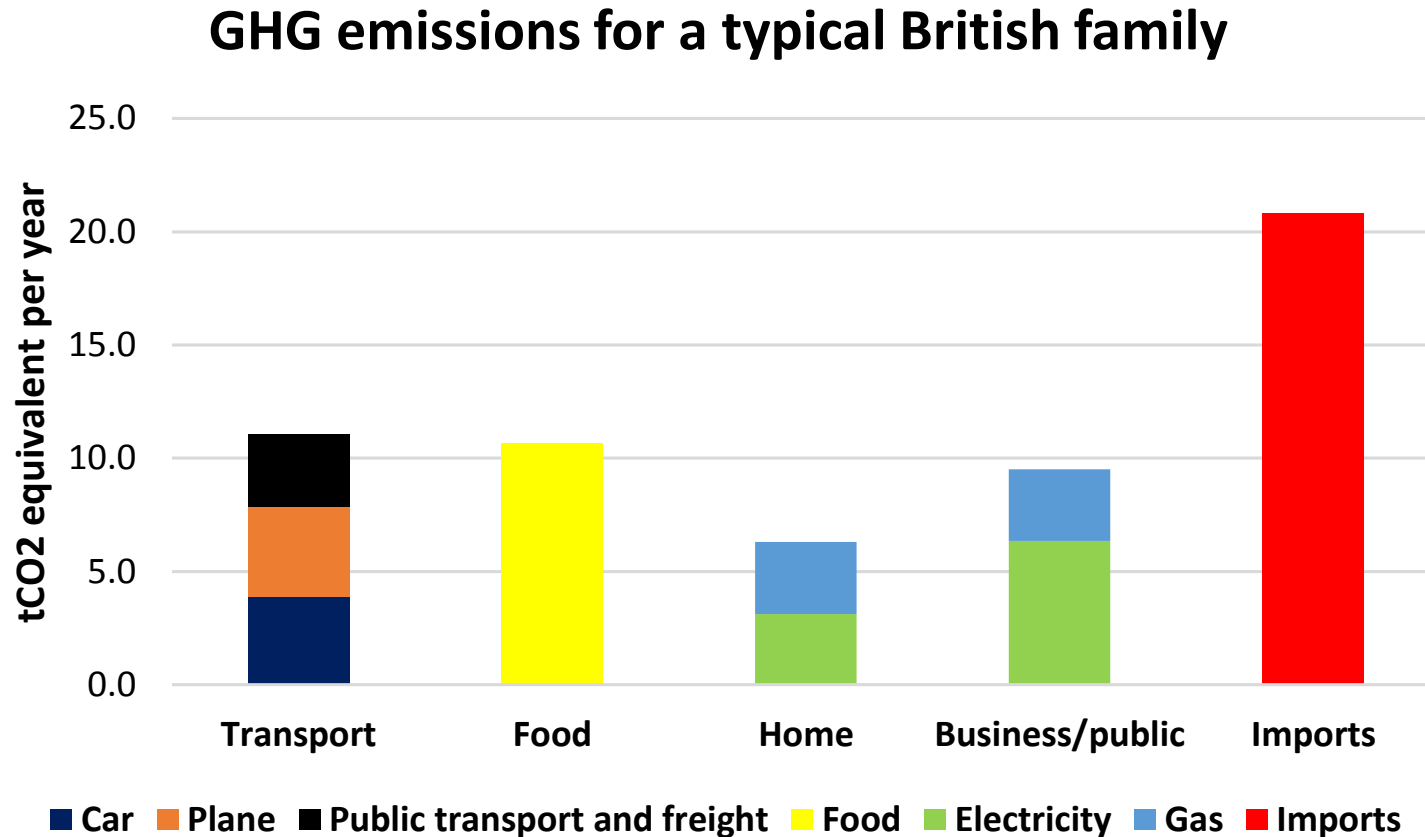


FOOD



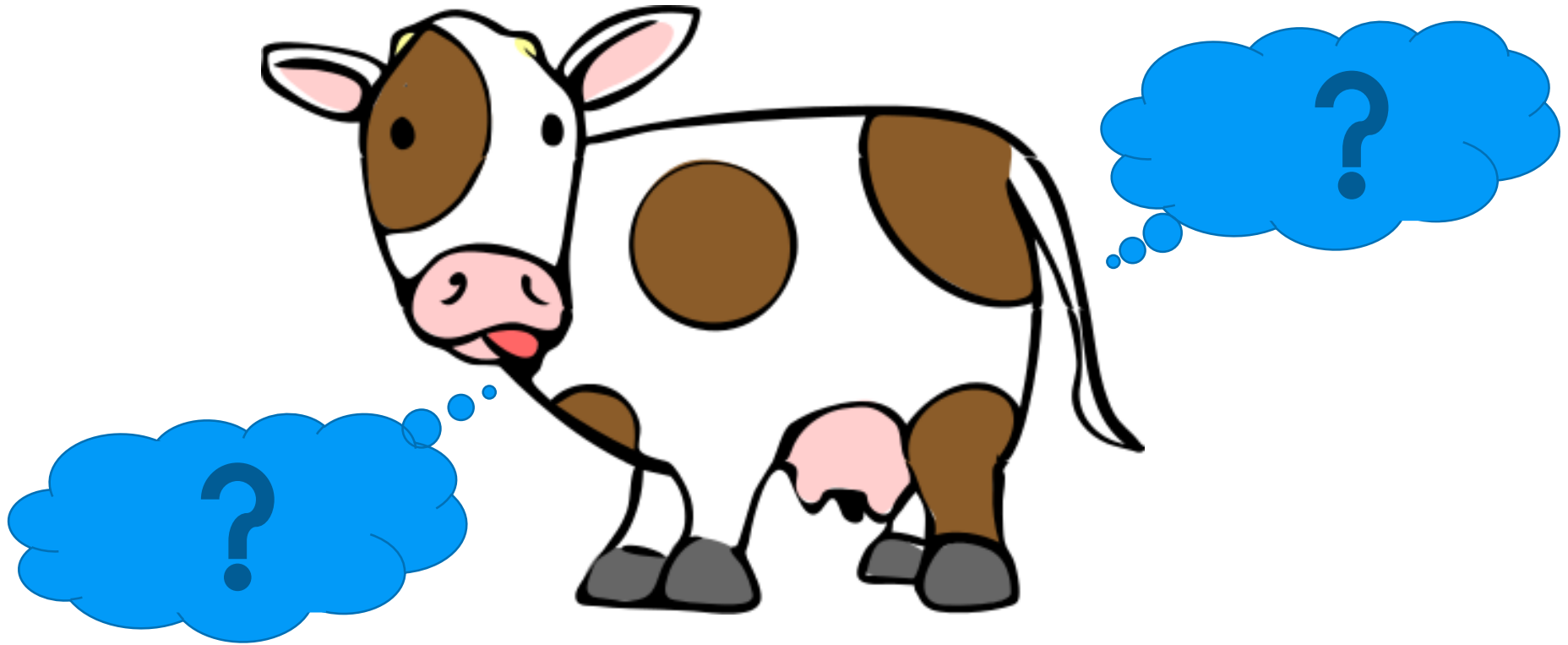
BUYING
STUFF

How do **WE** affect the Earth?



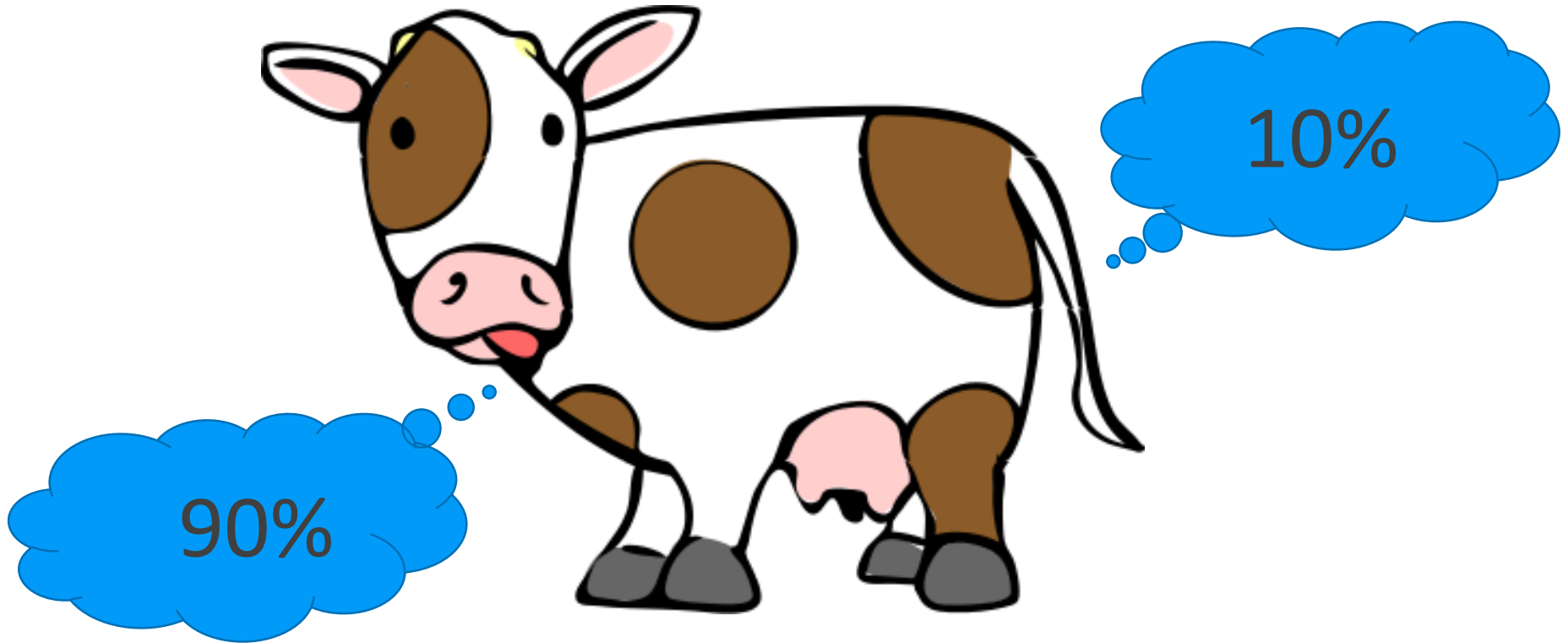
GHG based on an average 4-person family in Britain

Food emissions include livestock methane

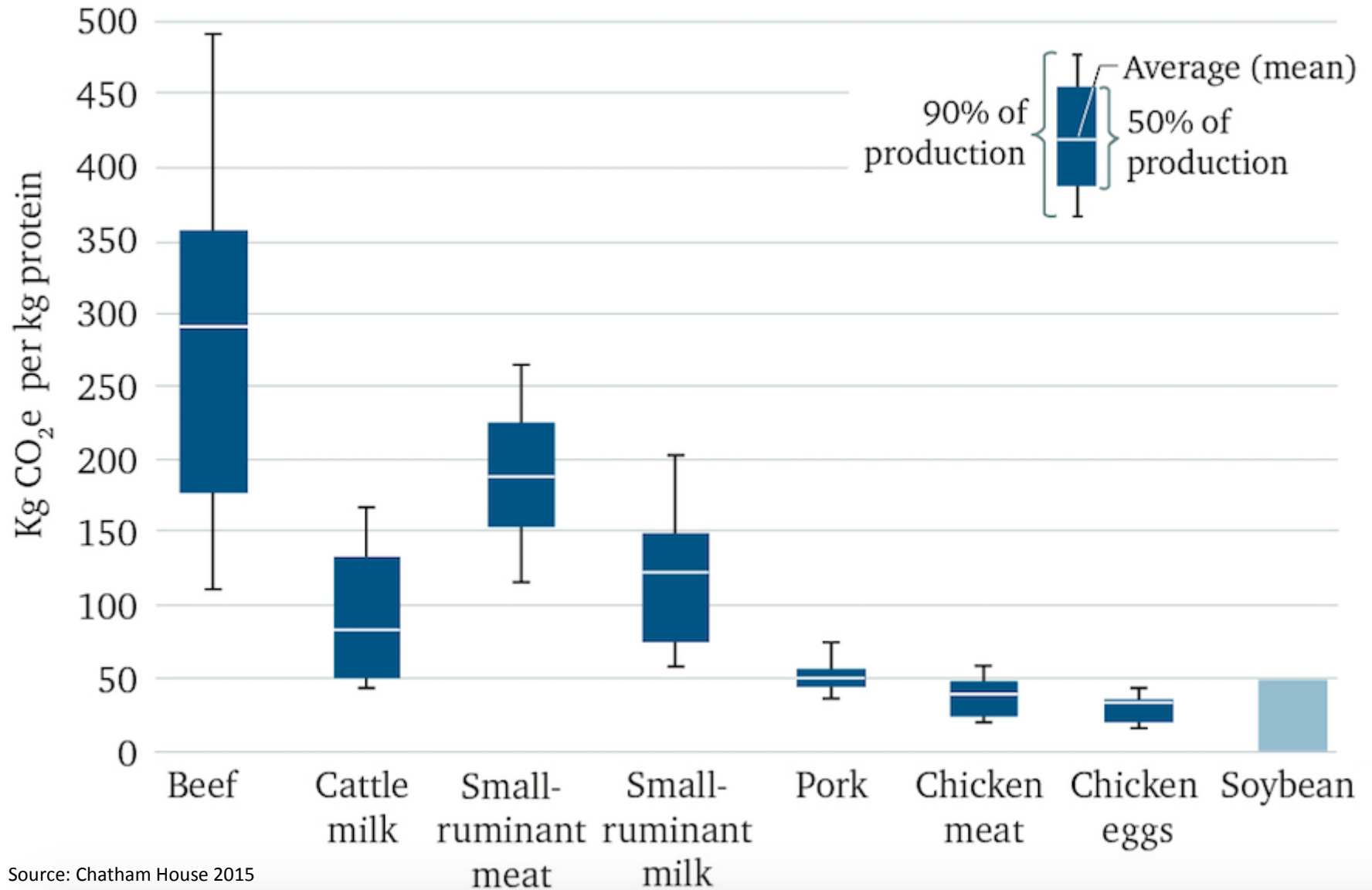


But which end?

Food emissions include livestock methane



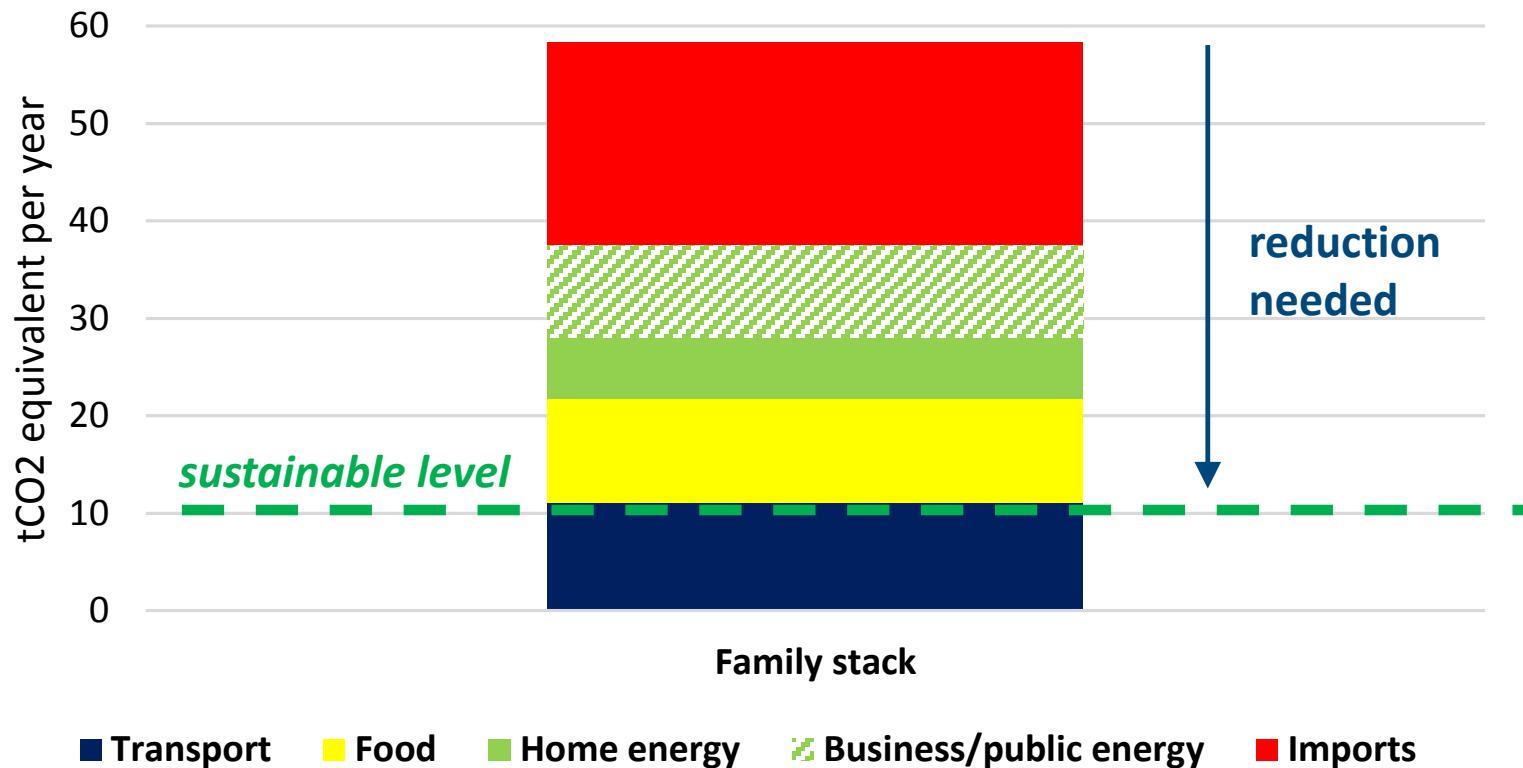
Beef consumption produces most emissions



Source: Chatham House 2015

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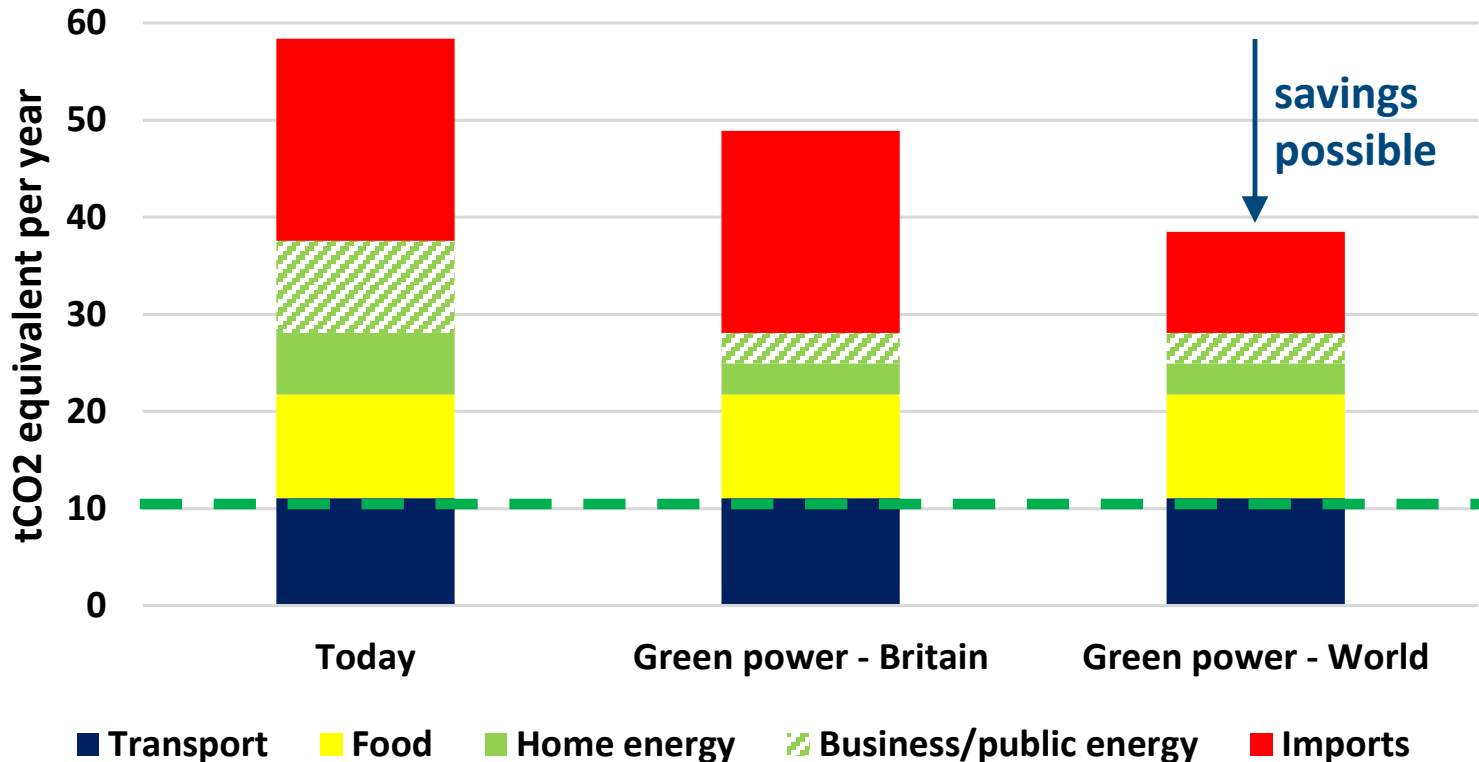
GHG emissions for a typical British family



GHG based on an average 4-person family in Britain

Can nuclear, wind and solar save us?

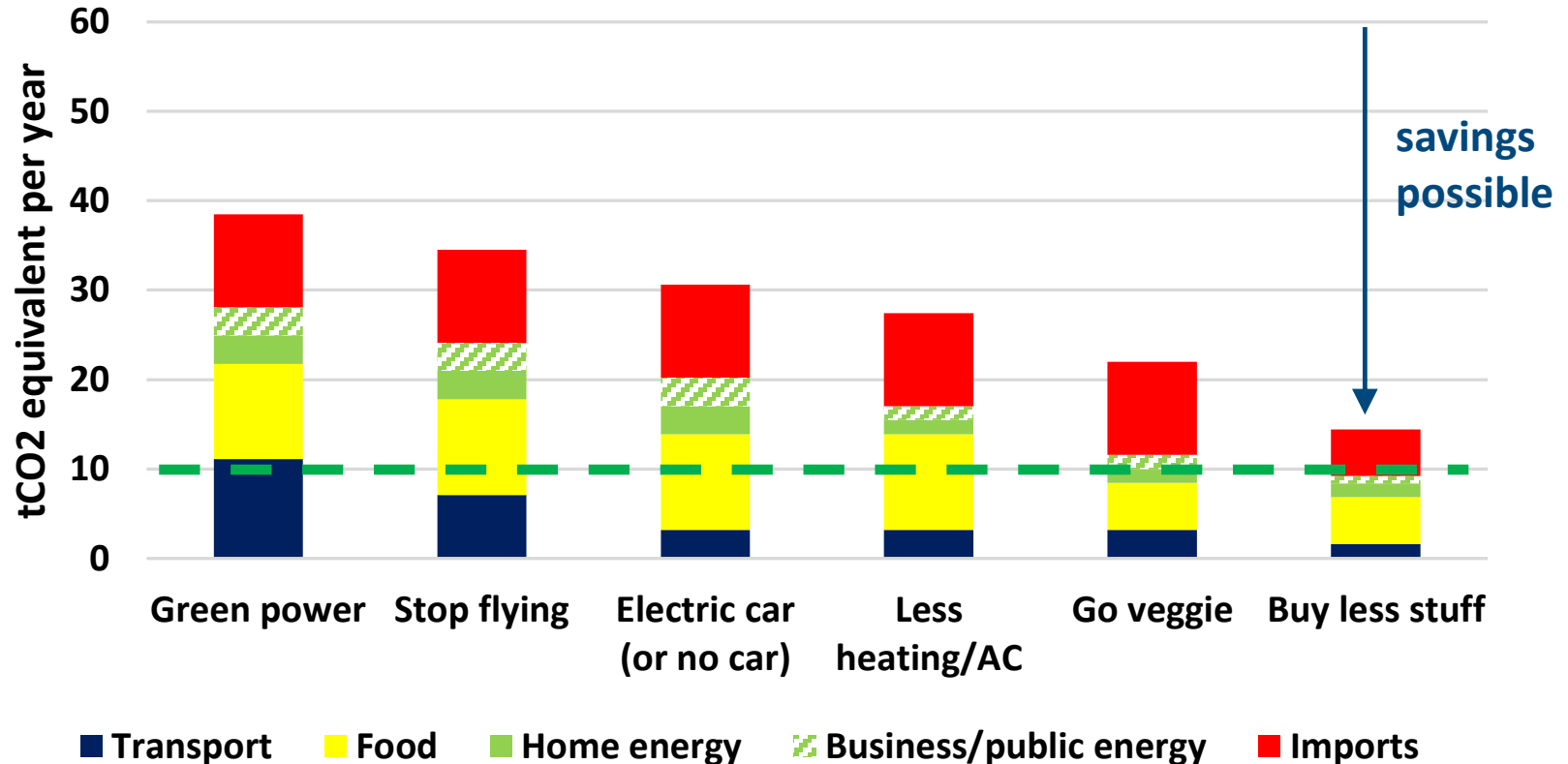
Green electricity?



This shows the savings if all electricity globally is zero carbon

What can **WE** do to help?

Beyond green electricity?



Every ~~little~~ **BIG** helps

Travel less in cars and planes

Turn off television/computer; don't leave on standby

Go vegetarian 6 days out of 7

Turn off dripping taps

Shop less, keep things longer

Buy local apples rather than imported apples

Turn the heating down, air con up

BIG HELP?



X



X

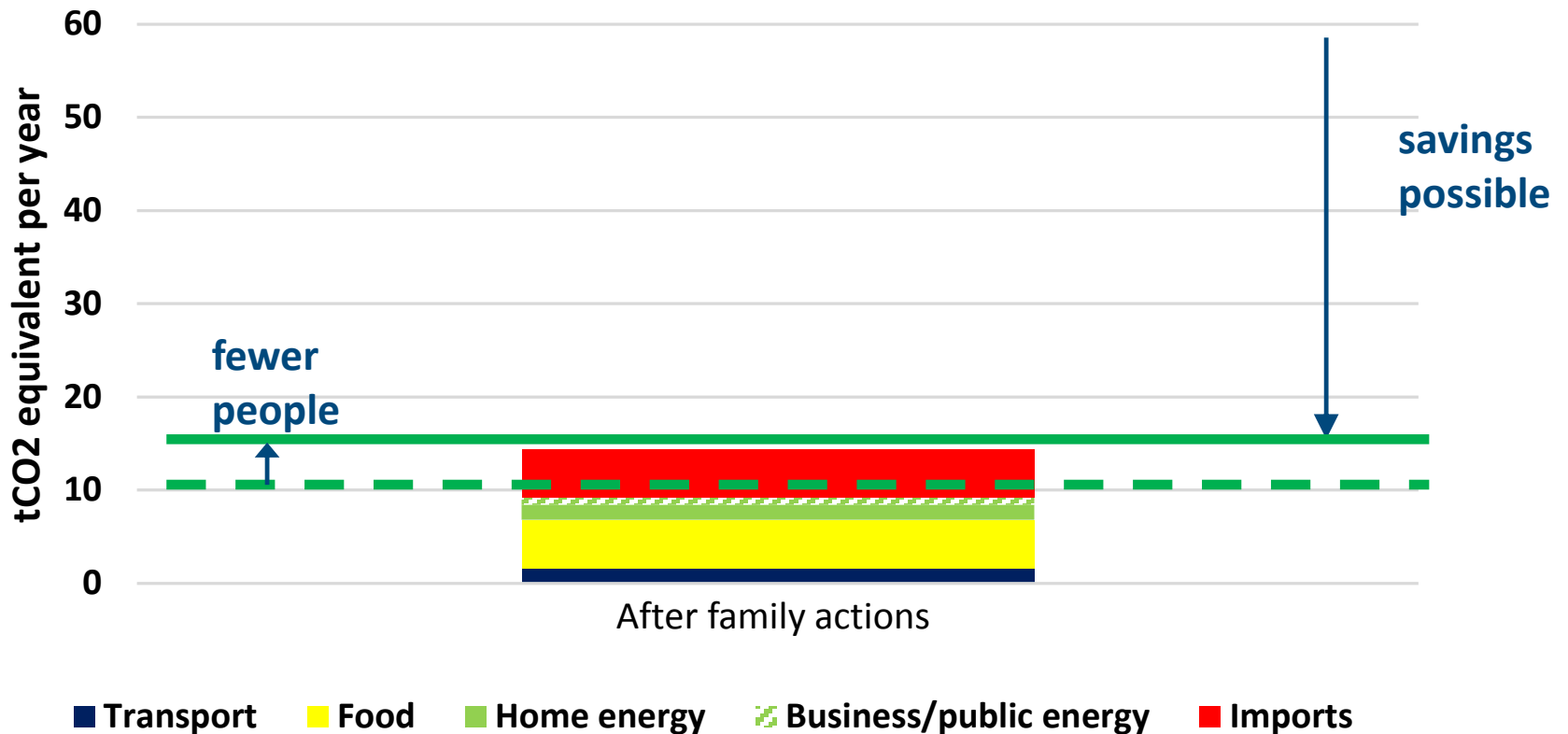


X



Finally, a politically difficult subject

What else?



If there were fewer people, we could emit more. Population matters ...

We only have one of these ...



... thank you for your attention!