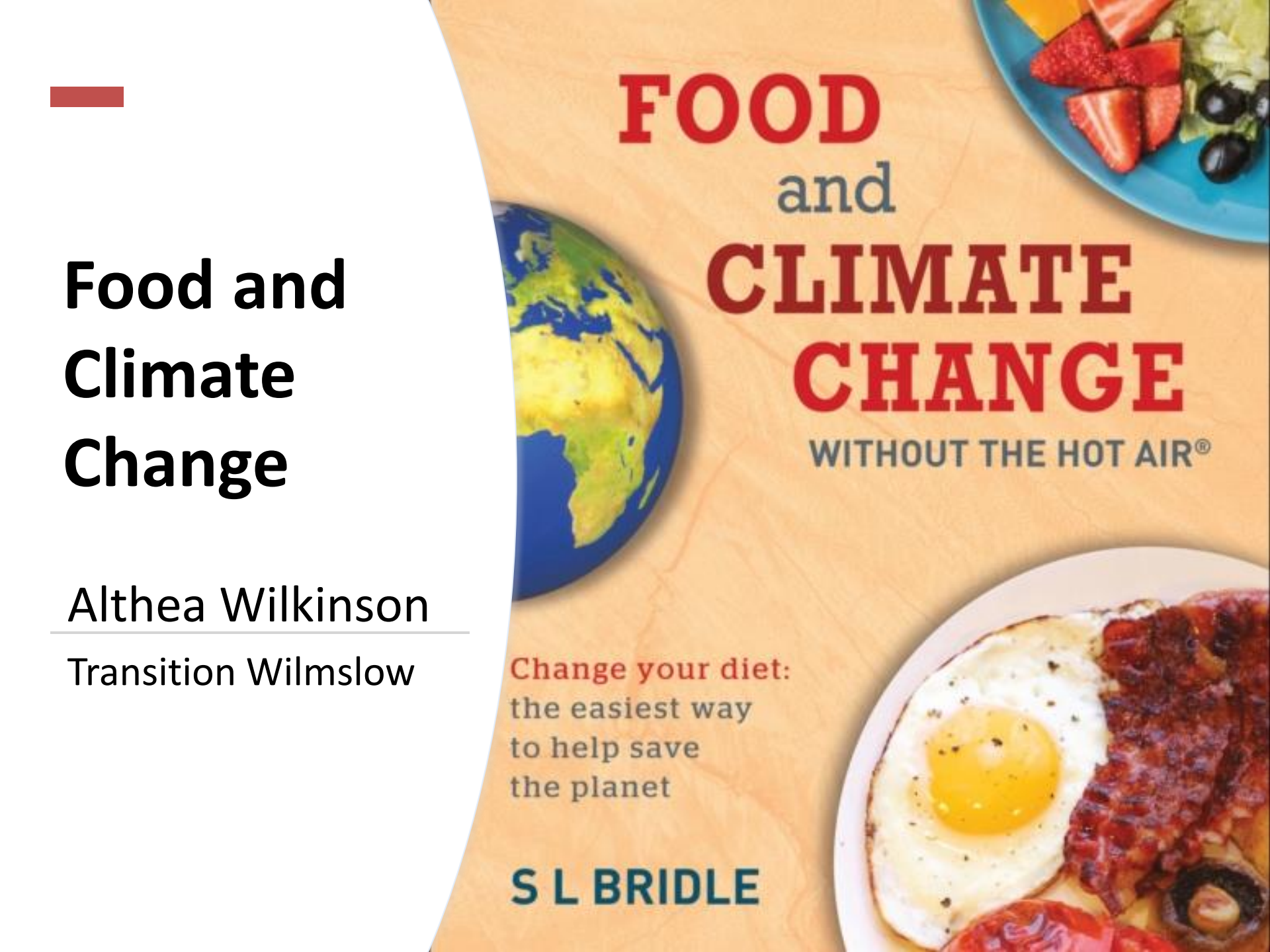




Food and Climate Change

Althea Wilkinson

Transition Wilmslow



FOOD and CLIMATE CHANGE

WITHOUT THE HOT AIR®

Change your diet:
the easiest way
to help save
the planet

S L BRIDLE



How do you feel about climate change?

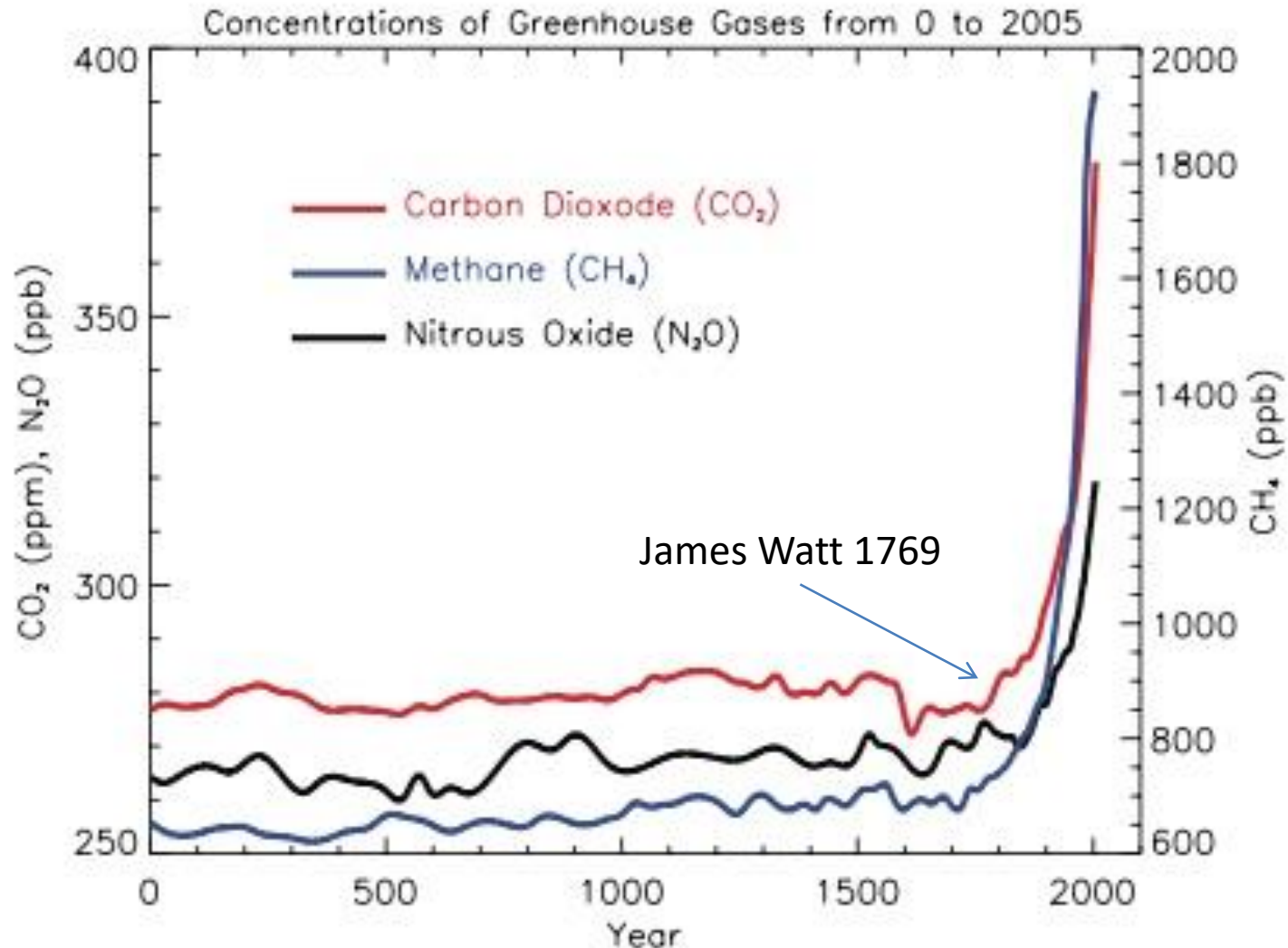
- Don't really believe it? It won't affect me.
- Convinced and worried?
- So terrified I have shut my mind to it.
- I can't make any difference.
- Is it worth making changes if China and India don't?
- I don't want to change my lifestyle.
- It's too expensive to change
- Fed up with being told I should go vegan?

As David Attenborough says...

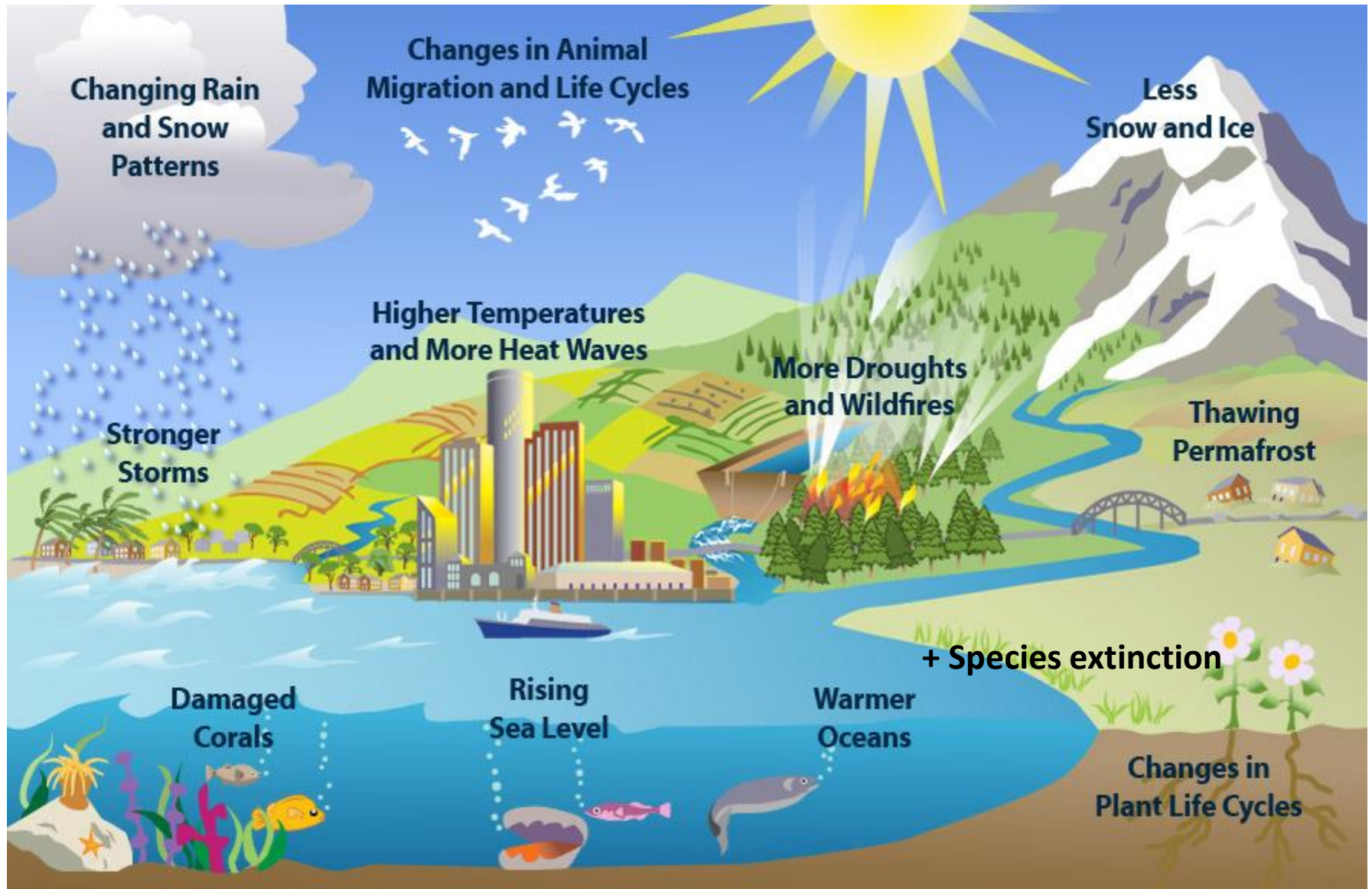


"Climate change is humanity's greatest threat in thousands of years. It could lead to the collapse of civilisations and the extinction of much of the natural world"

Greenhouse gases in atmosphere



Twelve Global Warming indicators





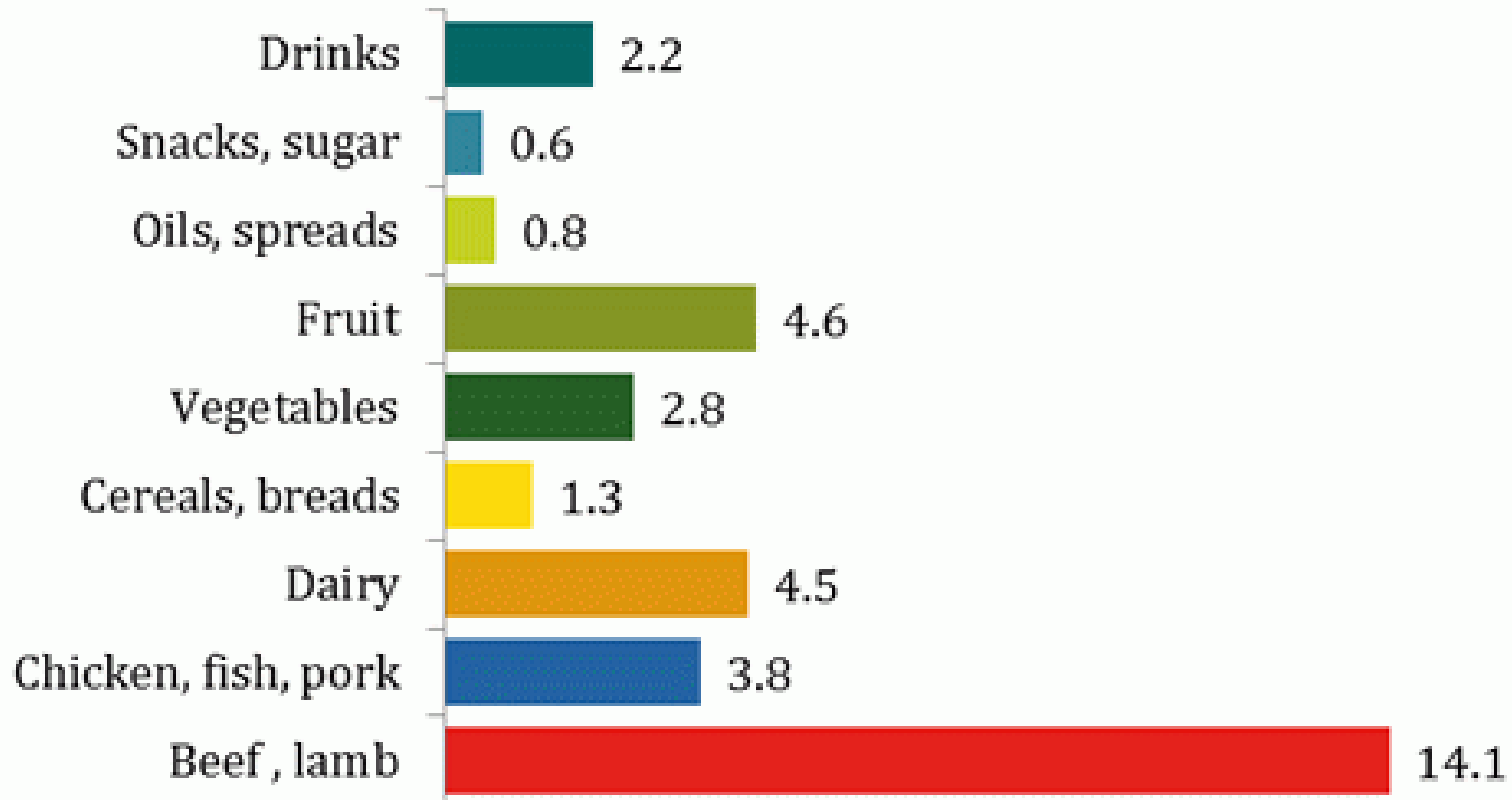
Should this upset us?

- If we do nothing, climate change will make life on earth impossible for all plants and animals, including us. As an astronomer – know what runaway greenhouse effect has done on Venus
- It leaves us mourning the destruction of our home
- Every extra bit of warming matters – your actions are NEVER irrelevant!

There is
something
we can all
do!

- We all need **to recognise our responsibility!**
- Flying planes, driving cars, generating energy, making food, clothes, buildings, generally living all produce Green House Gasses
- We all have to eat!
- What fraction comes from food?
- Including agriculture, processing, transport and packaging, between **a quarter and a third** of all global warming arises from food production!

Carbon Intensity of Eating: g CO₂e/kcal



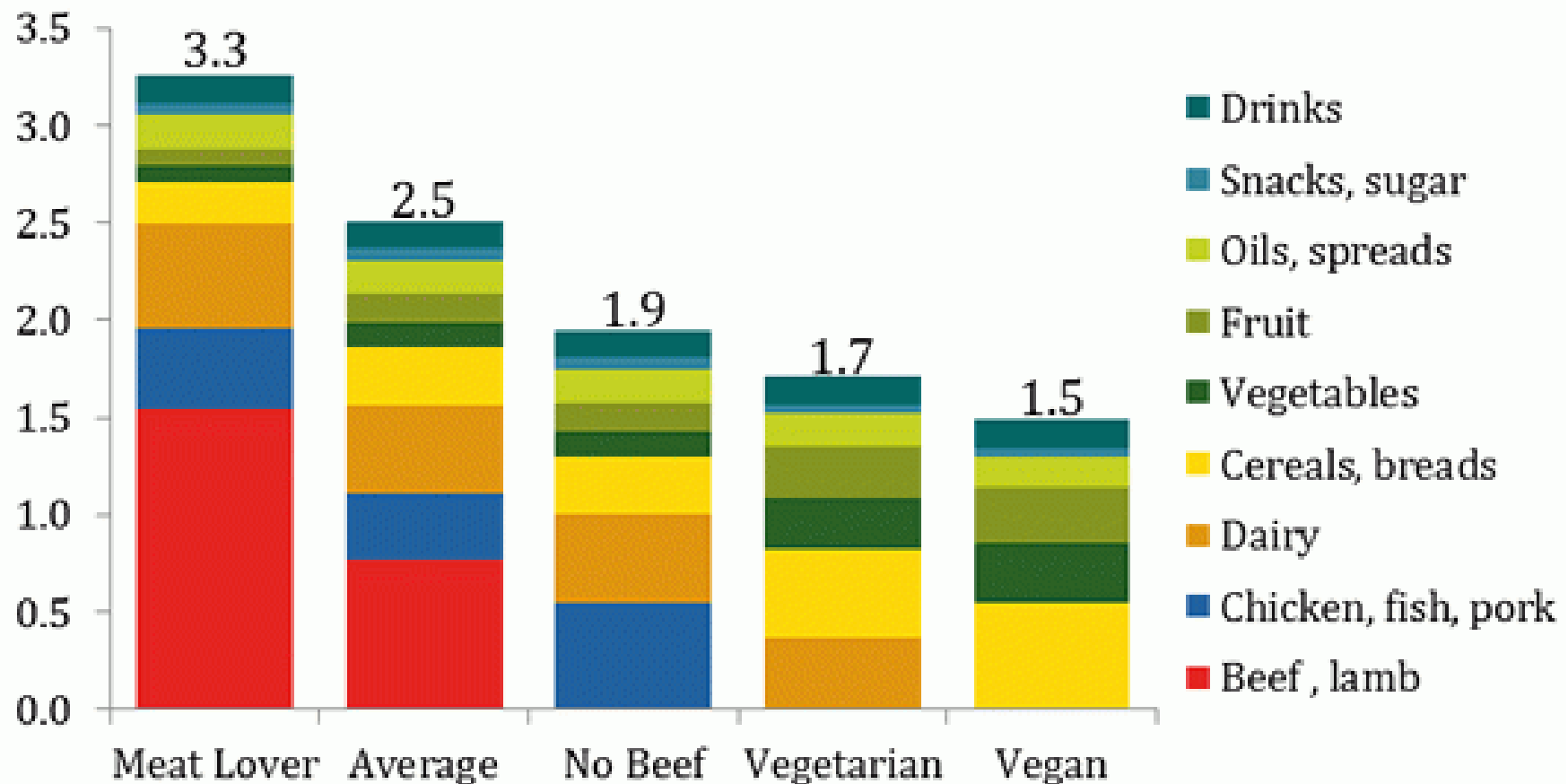
Note: Figures are grams of carbon dioxide equivalents per kilocalorie of food eaten (g CO₂e/kcal). Intensities include emissions for total food supplied to provide each kilocalorie consumed. This accounts for emissions from food eaten as well as consumer waste and supply chain losses. All figures are based on typical food production in the USA. Estimates are emissions from cradle to point of sale, they do not include personal transport, home storage or cooking, or include any land use change emissions

Sources: ERS/USDA, LCA data, IO-LCA data, Weber & Matthews



<http://shrinkthatfootprint.com/food-carbon-footprint-diet>

Foodprints by Diet Type: t CO₂e/person



Note: All estimates based on average food production emissions for the US. Footprints include emissions from supply chain losses, consumer waste and consumption. Each of the four example diets is based on 2,600 kcal of food consumed per day, which in the US equates to around 3,900 kcal of supplied food.

Sources: ERS/USDA, various LCA and EIO-LCA data

Bread, 2x per day, one slice per serving

- **Over 1 year your consumption of bread is contributing 43kg to your annual greenhouse gas emissions.**
- **That's the equivalent of driving a regular petrol car 111 miles (179km).**
- **OR**
- **the same as heating the average UK home for 6 days.**
- **Your consumption of bread also uses**
- **17,990 litres of water, equal to 276 showers** lasting eight minutes.
- **How starches compare - bread isn't as bad as rice**

But beef...

- 75g, equivalent to one typical fast food hamburger, 1 to 2 times per week
- **Over an entire year your consumption of beef is contributing 604kg to your annual greenhouse gas emissions.**
- That's the equivalent of driving a regular petrol car **1,542 miles (2,482km)**.
- **OR**
- the same as heating the average UK home for **95 days**.
- **OR**
- like taking **1 return flight from London to Malaga**.
- **Your consumption of beef also uses**
- **1,735m² land**, equal to the space of **6 tennis courts**.

What about cheese?

- If possible, local
- Sustainably produced
- Soft cheeses better
- Hard cheeses have highest GHG emissions
- Vegan (plant based cheese) is much lower



Want to check your own meals?

- **Climate change food calculator: What's your diet's carbon footprint?**
- <https://www.bbc.co.uk/news/science-environment-46459714>
- https://www.nytimes.com/interactive/2019/04/30/dining/climate-change-food-eating-habits.html?emc=edit_clim_20190501&nl=climate-fwd&nid=8880905120190501&te=1



So what should we do now?

- What about having meat (beef or lamb) as a treat – maybe once a week, once a fortnight? Better quality less often?
- Find alternatives to dairy products where possible
- As a country we seriously need to reduce the number of sheep and cattle, to allow the land to regenerate – as consumers we have the power to influence this
- Every little helps!

What will we eat in the future?

- Meat is going to become an expensive luxury once more. Will benefit our health! (BMJ, <https://tinyurl.com/y692alyo>)
- Mini-livestock: crickets, grasshoppers etc – low carbon footprint, high protein (eg Bugvita)
- Meat grown in laboratories – lab-burgers based on algae. >60% by 2040 (AT Kearney <https://tinyurl.com/yysmgjyz>)
- Plant based alternative “whole” foods – eg Huel
- Lots of vegetables!

http://songsofinsects.com/wp-content/uploads/insect_musicians_chort-curt_LE_WHITE.jpg



Making the Change

- Different foods cause very different emissions
- Most of us can make a big difference by changing a few things we do often – particularly eating beef, lamb or dairy produce.
- *“We don’t need a handful of people doing zero waste perfectly. We need millions of people doing it imperfectly”* (Anne-Marie Bonneau)
- You don’t have to do it all at once.....
- Do it, then talk about it!