Castlemorton Environmental Action Group - Welcome

- Introductions – who we are
- Outline for the evening
- Our objectives
- Presentation – Castlemorton and environmental sustainability
- Q and A/discussion
- Next steps?
- Tea and biscuits

Objectives for this meeting

- Find out what residents would like the group to do
- Topics for presentations
- Areas to focus on
- Who is willing to become involved



What we have done so far

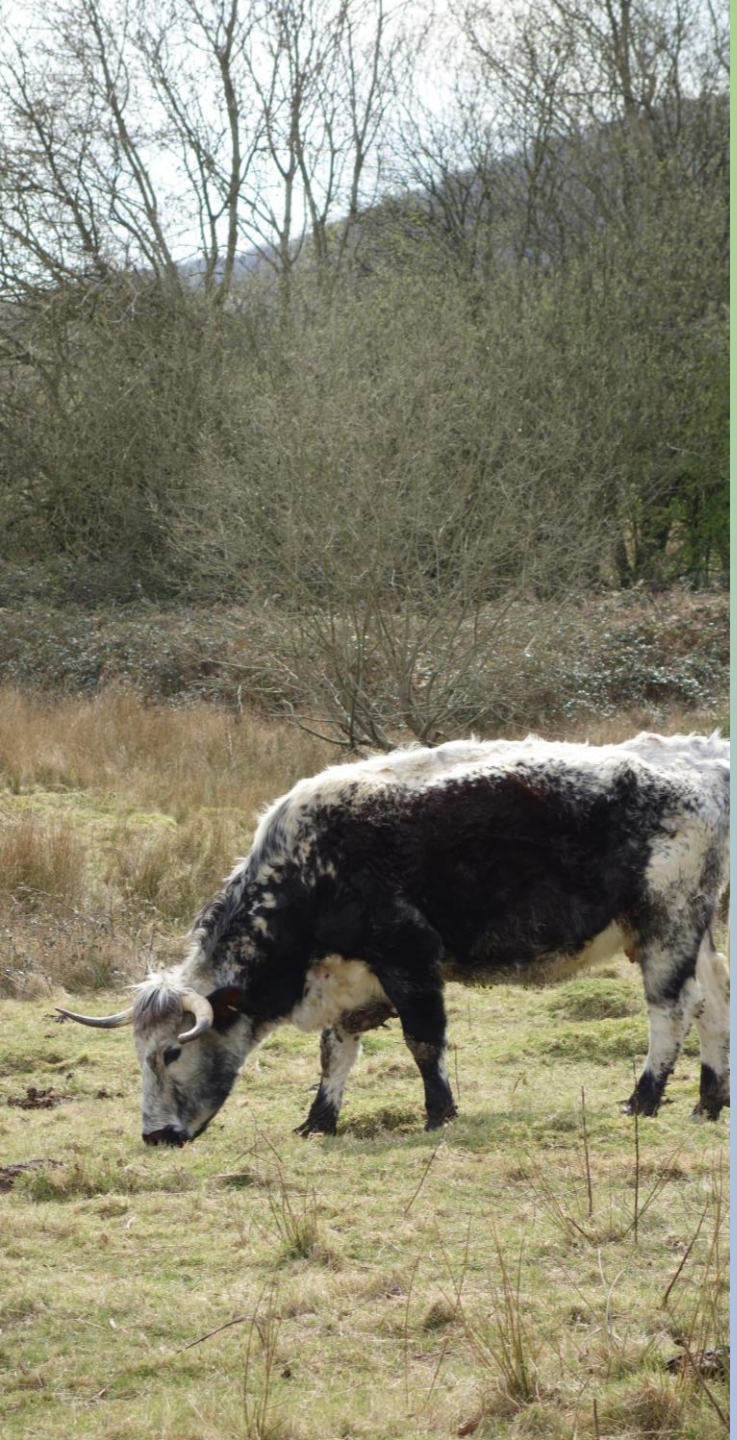


- Leaflet
- Logo – designed by Castlemorton school.
- Webpage
- Survey
- Tree planting
- Talks
- Contact list
- Information on car club and e-bikes

What we are and are not!

The group is not an activist or protest group.

Our aim is to promote and assist positive action towards improving our environmental sustainability. This includes reducing our impacts, moving towards a zero carbon parish, increasing biodiversity and helping each other towards these goals.



Castlemorton and environmental sustainability

Outline

- Context - what are the big issues for the environment?
- View from Castlemorton.
- Understanding your carbon footprint.
- Change and opportunities for action.

Global context

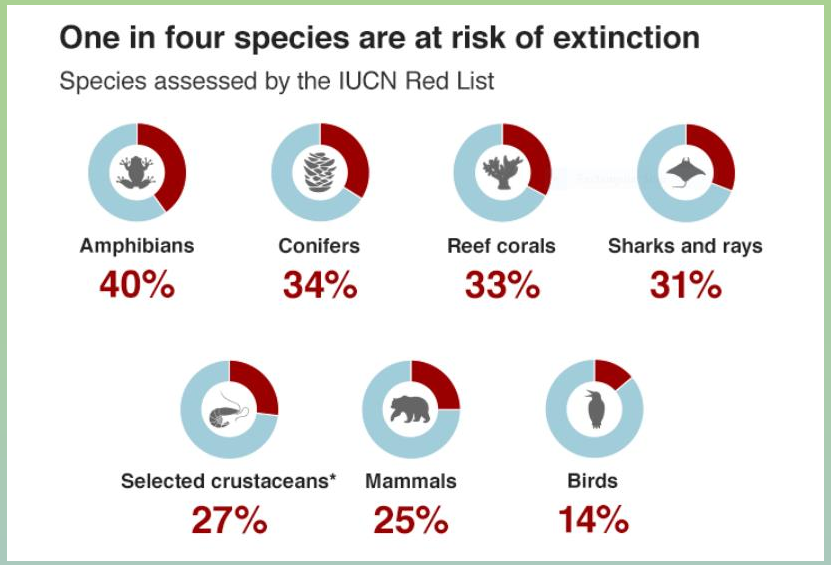
Globally two acute crises. (Both are reflected in International and UK targets).

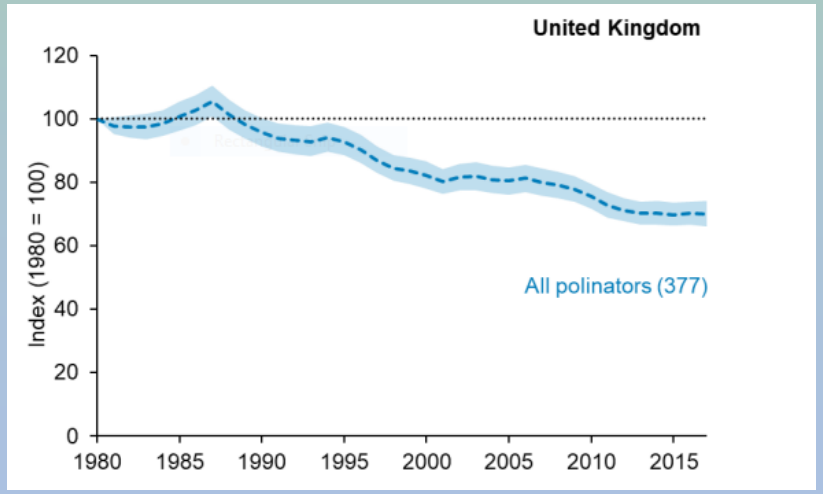
- Biodiversity decline – loss in natural habitats and species.
- Human induced climate change – leading to global warming.



Biodiversity decline

- Global habitat and species loss.
- ‘On verge of’ a mass extinction event – (>75% of animal species loss).
- Deforestation – 5-10 million hectares/year.
- UK is one of the world's most nature-depleted countries - in the bottom 10% globally and last among the G7 group of nations.
- UK 30% decline in pollinators since 1980.





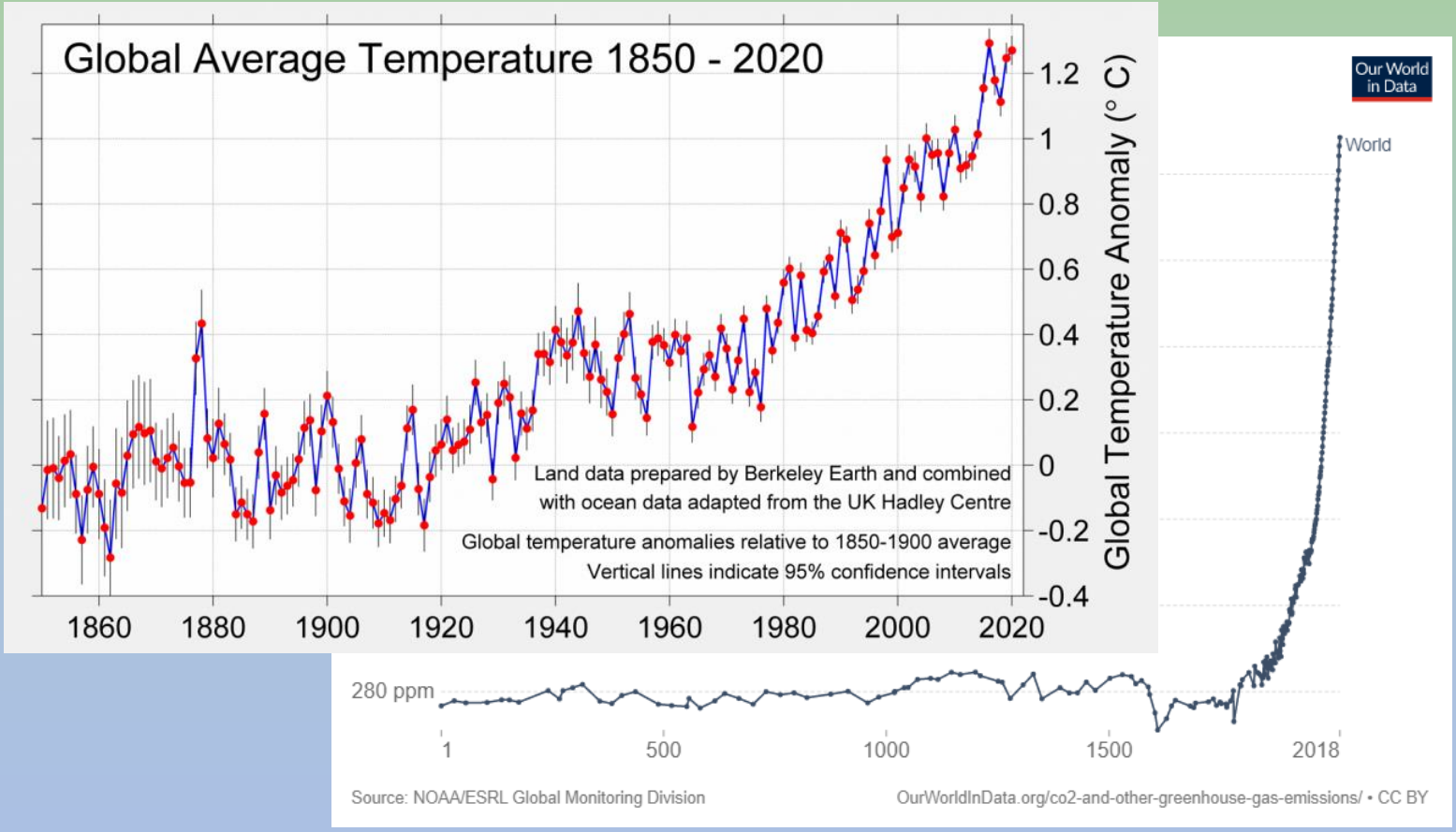


Climate change – in brief

- Carbon and other greenhouse gases emitted by human activity increases global average temperatures, extreme weather events, flooding and sea level rise.
- Net zero or carbon neutrality means that the emissions of carbon or other greenhouse gases are balanced by processes that absorb greenhouse gases – such as tree planting, peatland restoration or carbon capture and storage.
- Reduce emissions to net zero to stabilize temperature rise to avoid the most catastrophic effects.
- Net zero by 2050 to limit temperature rise this century to 2 degrees C.
- Sooner to have chance of coming close to 1.5 degrees - requires a global reduction of 45% in emissions from 2010 levels by 2030 and to net zero by 2050.

CO2 emissions

- Human activities release > 40 billion tonnes/year into the atmosphere.
- About half is removed by vegetation, soils and oceans.

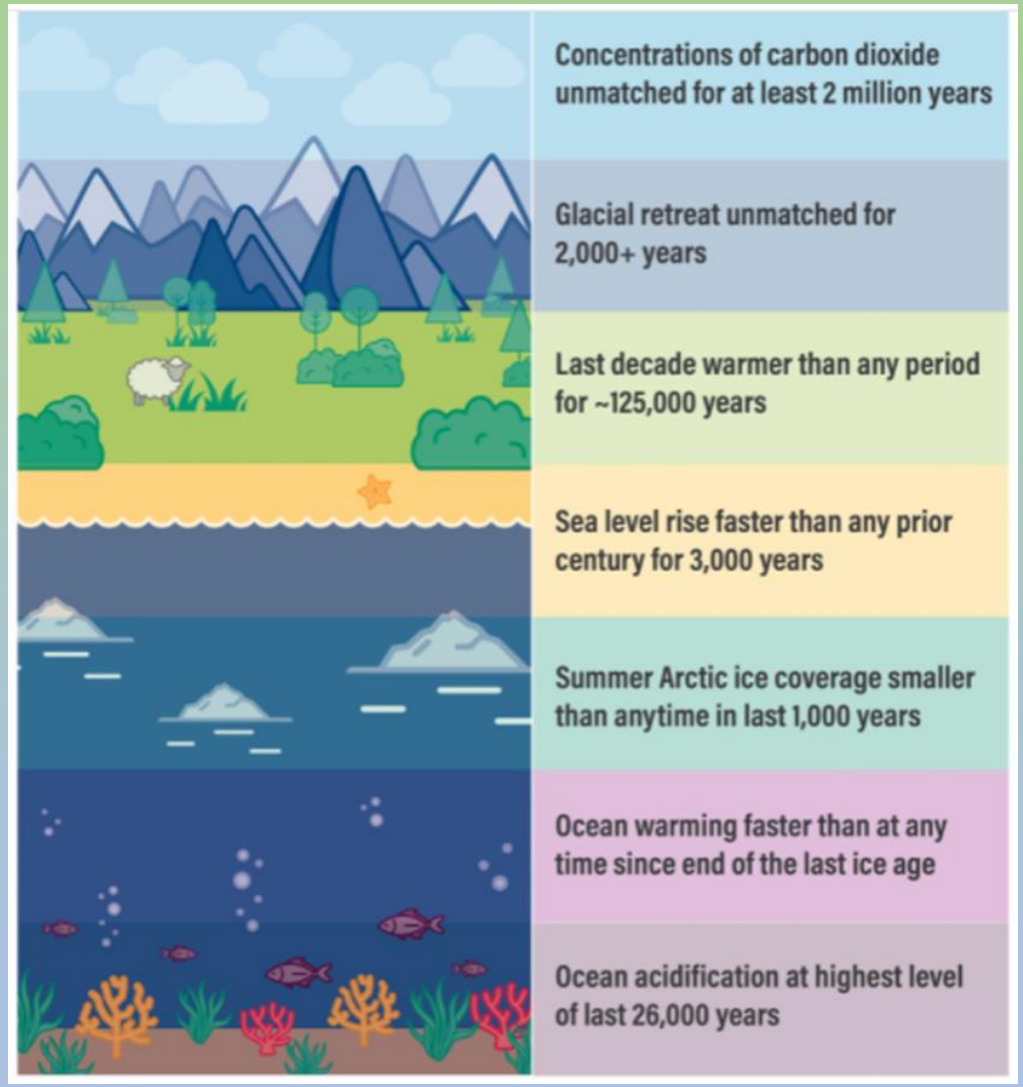


Effects

Graphic from IPCC 2021 climate change update.

Huge changes already happening.

Modern humans have been around for 200,000 years.



So how are things in Castlemorton?



Biodiversity

- High proportion of quality habitat for lowland England parish - notably on MHT land and SSSIs.
- MHT has conservation duty and management in place.
- Agricultural businesses are the main managers of habitats elsewhere.
- Outside MHT changes in land use and habitat likely to mirror national/county declines.





Carbon footprint

- This is the amount of CO2 and other greenhouse gases we are responsible for – expressed as carbon dioxide equivalent.
- A footprint can be estimated for households, businesses, industries, countries and globally.
- A Parish level impact tool* has been produced which indicates the scale and source of emissions in Castlemorton.
- Roughly right – indicative rather than definitive.

[* https://impact-tool.org.uk/]

CO2 from Castlemorton household consumption

Castlemorton

27.4t CO_2e^*

per-household consumption footprint (p.a.)

EMISSIONS BREAKDOWN (t CO_2e)

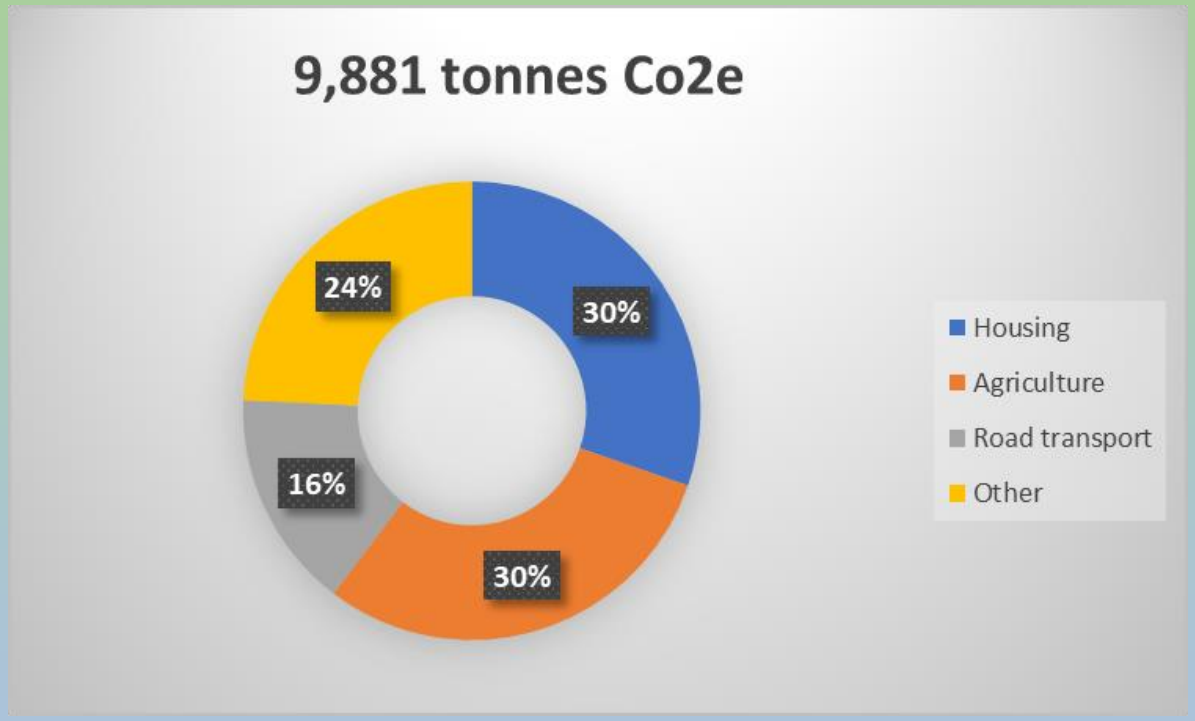
Housing	11.1
Consumption of goods and services	6.79
Travel	5.37
Food and diet	4.05
Waste	0.08

*CO2e stands for "carbon dioxide equivalent" and is a standard unit of measurement in carbon accounting. It expresses the impact of a number of different gases collectively as a common unit.



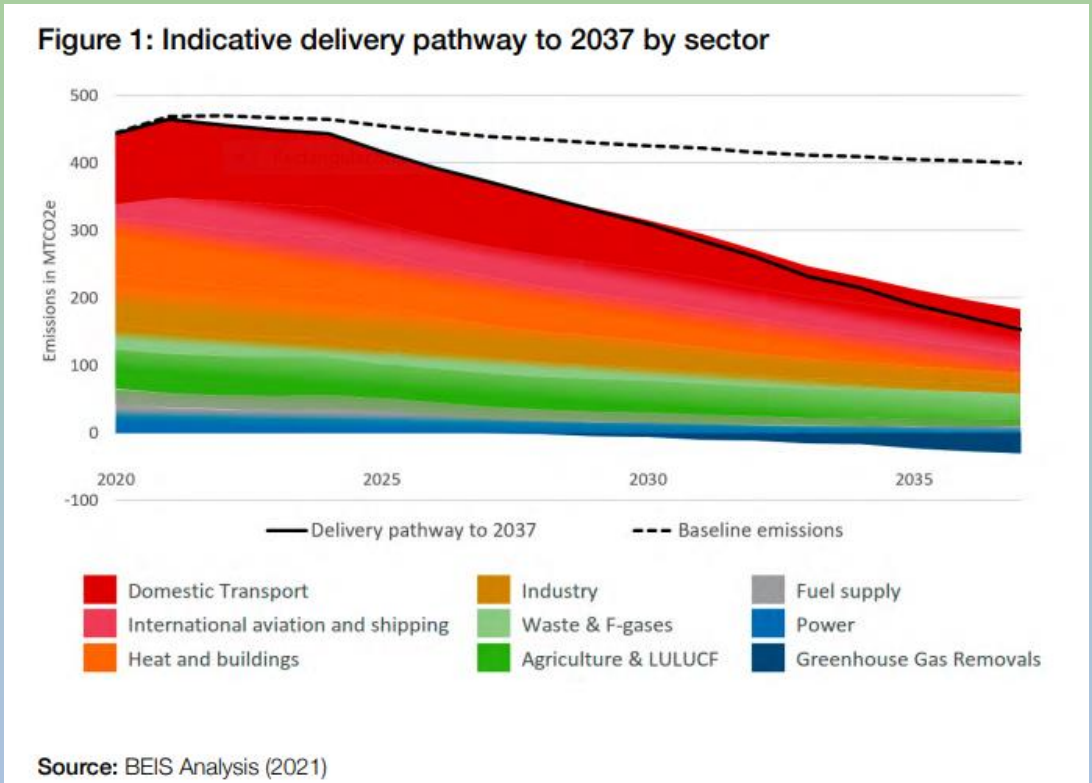
- Measure of how much households emit.
- We are about double England average.
- Household heating and transport are significant contributors.

CO2 emissions for Castlemorton Parish



- The total amount of greenhouse gas that is emitted within the Parish.
- Housing and agriculture are biggest sources of emissions.
- Note some data is apportioned from District level so should be seen as indicative rather than definitive.

Towards Net Zero – UK policy timeline



- 2025 No gas or oil boilers in new build homes.
- 2030 No new petrol/diesel cars for sale.
- 2035 All new vans also need to be zero emissions.
- 2035 No replacement fossil fuel boilers on sale.

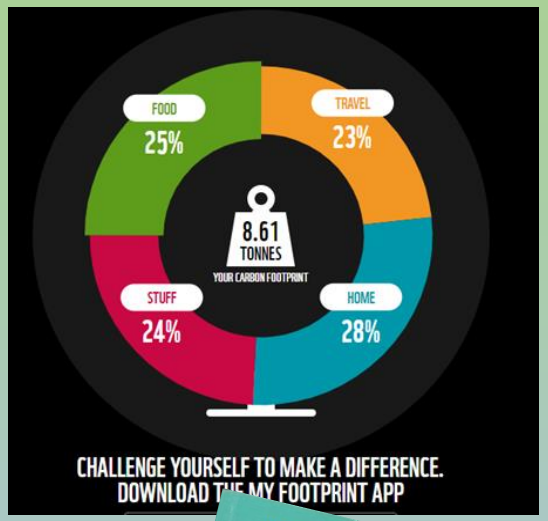


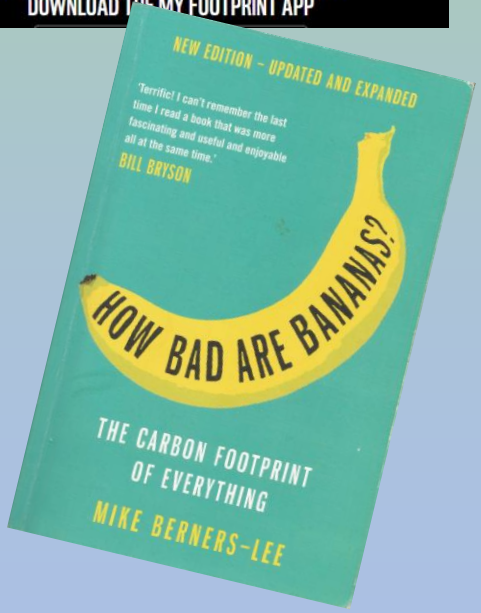
What difference can I make?

- **Households contribute about 40% of UK total** – so individual choices on consumption and lifestyle can add up to make a difference.
- It is net zero by 2050 – not tomorrow!
- Staged process – individual circumstances and choices vary some will be earlier/some will be later adopters.
- Economics are changing all the time – solar panels and electric vehicles could save you money now. Predictions are that relative cost will go down as they scale up.

Understanding your carbon footprint

- Learning about your carbon footprint can help you think about what big or small changes might work for you. eg diet, travel, heating.
- Have a go at using the WWF carbon footprint tool. https://www.wwf.org.uk/learn/why-your-footprint-matters
- More detail on carbon costs of ‘everything’ in Mike Berners-Lee’s book.



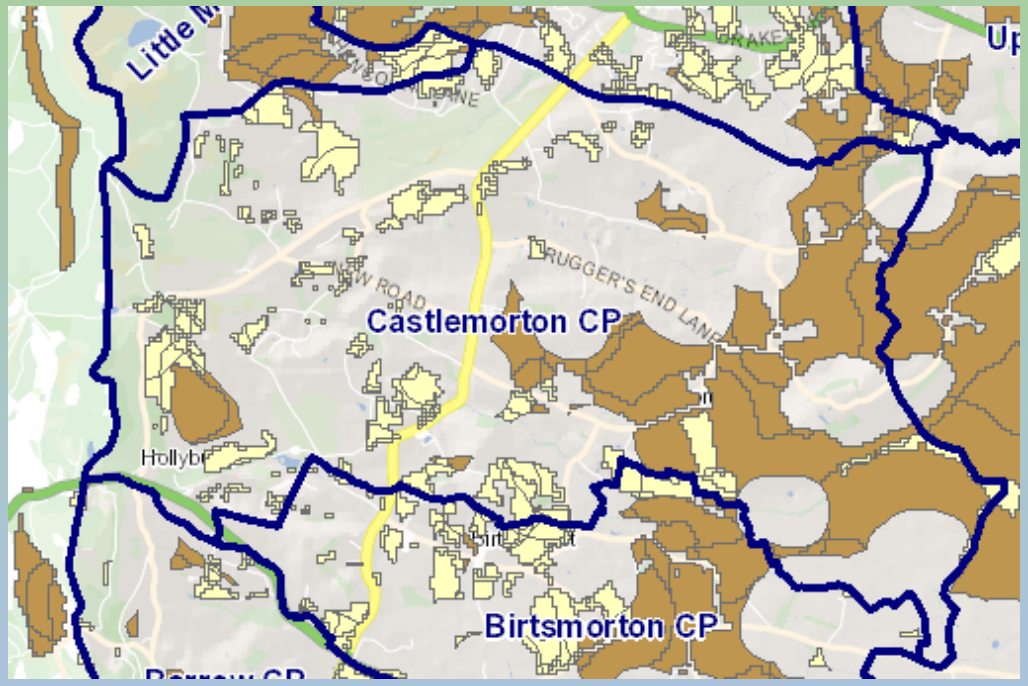


Reducing carbon - big steps and little steps

- Electric car, no flights, solar energy, heat pump and insulation - household carbon footprint reduced from 12.8 tonnes/year to 6.8 tonnes/year.
- Climate Change Committee advice to Govt was to reduce red meat consumption by 20%.
- WWF livewell plate – sustainable eating for environment *and* health benefits. https://www.wwf.org.uk/what-we-do/livewell
- Buy less stuff – repair cafes.

CO2e	To meet daily protein requirement (50g)
425g	Lentils or chickpeas (625g)
2.1Kg	Eggs (7 large)
2.8Kg	Chicken (180g)
3.8Kg	Pork (200g)
10Kg	Lamb (200g)
10-20Kg	Beef (190g)

Biodiversity opportunities

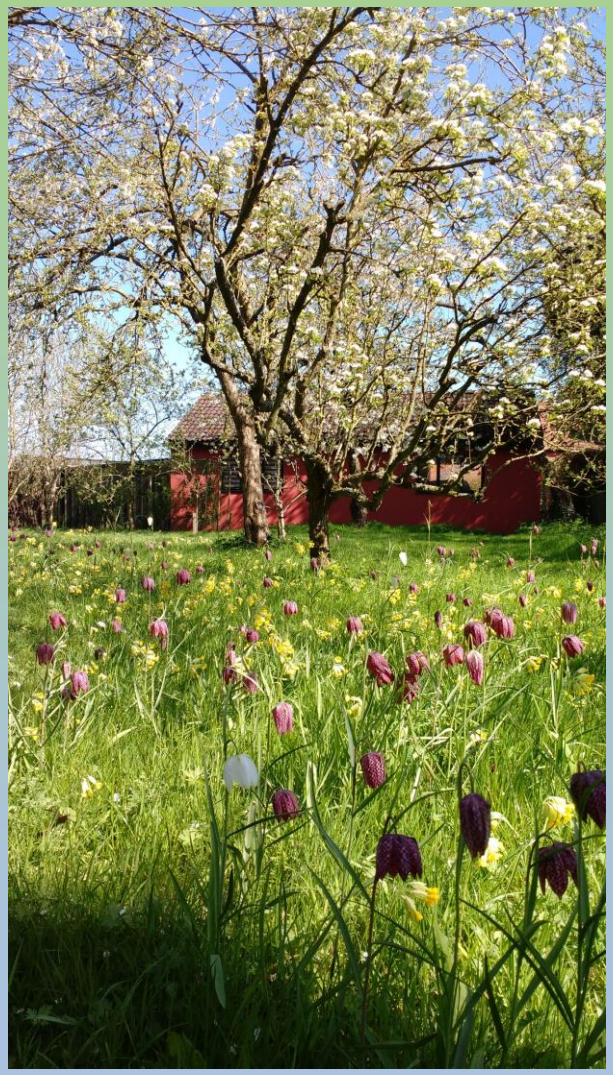


- Habitat restoration and habitat creation potential mapped in yellow and brown.
- New forms of public funding for farmers to support the 25 year environment plan aims including nature recovery.

[Source: Worcestershire County Council Habitat Inventory]

Biodiversity at home

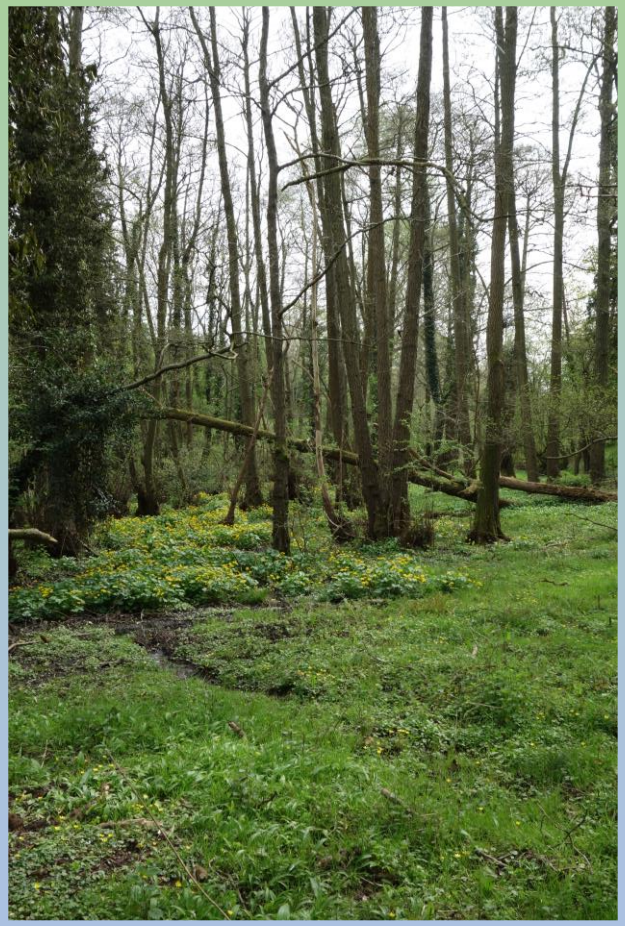
- Wildlife gardening.
- Long grass for wildflowers and insects.
- Pollinator plants.
- Ponds.
- Nestboxes.
- Tree and orchard planting.
- Composting.



Summary - Castlemorton in a net zero world

The big challenges for rural parish:

- Household heating and insulation– switch to heat pumps and possibly biofuels.
- Transport – switching from internal combustion.
- Diet - reducing consumption of meat and dairy.
- Farming - system wide changes will be needed, eg to reduce livestock emissions.
- More carbon storage in soils, trees and wetlands.



Any questions on presentation?

CEAG themes



- Increasing biodiversity.
- Transport.
- Food and agriculture.
- Energy.

Questions:

What might we do under each of these themes?

Who would like to contribute to one of these themes?

Are there other themes you would like to work on?

Next steps?



- CEAG survey – forms in the room or online.
- Identify topic sub-groups – eg wildlife gardening/biodiversity?
- Plastic free stall
- Keep residents informed of events in the Malvern Hills and network with other groups (Hanley Carbon Neutral, Transition Malvern Hills, Malvern Green Space, community fridges etc)
- Your contact details.