Let's talk about Food, Agriculture and Climate Change

Prepared by David Howlett[1] for Action on Climate Emergency (ACE) Spring conference – Climate change – What is means for our rural communities

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Climate change, what we eat and how it is produced is going up the agenda. Some facts.

- **About one third of the world's food (1.3 billion tons) is lost and wasted every year**. A tragedy when a billion people are go to bed hungry every night. A double tragedy as the greenhouse gas (GHG) emissions from food loss and waste if added together would make it the third largest "country" for emissions after USA and China!
- **In 2018, 9.5 million tons of food was wasted in the UK**. 70% from our kitchens whereas supermarkets and retailers share was only 3%. Three quarters of this could have been eaten. For the average family this is like putting £60 of food per month in the bin!
- **Food is also lost before it leaves the farm** from pests, diseases, and extreme events like flooding and drought. While no national wide figures for farm losses exist in UK, a study found that for two crops (strawberry and lettuce) £30 million ends up as waste each year.
- **Globally 24% greenhouse gases (GHG) emissions are from agriculture** and land use change (e.g. cutting down forests). Higher than transport, and the same as the energy sector!

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- **Livestock farming produces about 14% of global emissions**. In the UK about 10% of annual GHG emissions come from agriculture. Yet agriculture is uniquely placed to offset emissions by storing carbon in soils and plants through improved land management.
- **Agriculture is very vulnerable to climate change impacts**. We are seeing these in UK and Craven with more frequent floods and droughts. The Fishlake floods caused immediate damage to farmers' livelihoods **and** polluted farm land that could takes years to put right. Now we've just had the storms Ciara, Dennis and Jorge with red warnings in Settle!

What is happening?

Business as usual in what we eat and how it is produced isn't an option. Action is happening. The NFU has set the ambitious goal of reaching net zero GHG emissions across the whole of agriculture in England and Wales by 2040. Government is setting new targets and changing policies and subsidies. Turning to red meat. Do we need to eat less? It is a Yes and No answer:

Yes, we do need to reduce net emissions from red meat and dairy.

No, as not all red meat is equal. Cattle fed on cereals (especially soya) has a much higher carbon foot print than grass fed animals, and where with good land management, as practiced by many farmers in Craven, makes this meat much more climate friendly.

Our **grasslands in Craven an important store of carbon.** This storage can be increased by moving to less intensive grazing and more rotational practices of the past. Emissions can be reduced by adopting new technologies. This includes feed additives to reduce methane emissions (sea weed has the potential to do this!), and smart cattle nose ring to convert methane into carbon dioxide (less damaging GHG than methane) and water vapour.

There are large amounts of **carbon stored in peat on our fells**. These need to be maintained, and degraded peat lands restored by blocking drains and different summer grazing patterns. This has added benefit of reducing flooding downstream, as do "leaky" dams as part of natural flood management for the Upper Aire and Ribble catchments.

Planting trees and maintaining and expanding hedgerows is another important change we can make in Craven. The Yorkshire Dales Millennium Trust, National Trust and Woodlands Trust, Yorkshire Wildlife Trust are already supporting tree planting in the district.

With Brexit we can expect significant changes to UK's agriculture subsidies. Indications are these will be targeted to help farmers protect the environment and support sustainable and resilient farms. ELMS (Environmental Land Management Schemes) is set to launch in 2024.

Craven District Council's Climate Emergency Plan is to make the whole district carbon neutral by 2030. One priority is to ensure that all our natural resources are used in a carbon-efficient way, and storing carbon wherever possible and improve the District's biodiversity.

What practical steps can we take?

Reduce our food waste

- It's bad for our pockets and the environment.
- Think what you buy – don't get buy one get one free, and then put one in the bin!
- Plan your meals ahead, and save leftovers and create a new meal with them.
- Make your own compost with uncooked vegetables and food.

Think about **what we eat** and **where it comes from**:

- Choose food that is sustainably produced with best ethical standards. For beef this means grass fed not grain fed - especially if its fed soya on land from converted rain forests.
- Buy locally to reduce food miles.
- Buy foods when they are in season - do we really need fresh strawberries in winter?
- Grow your own vegetables and salads!
- Last but not least, pay a fair price for our food from our farmers. If food is too cheap there's a reason - most likely produced with lower environmental and ethical standards.

And yes, the hard part, it is about reducing red meat and dairy consumption worldwide. But if we buy the best (especially from Craven's farmers) this can be a win-win-win: nutritious food; sustainably produced; and, an income for our farmers.

Farming:

- Support NFU plans for net zero agriculture in England and Wales by 2040.
- Improve grassland management to increase carbon stored in our grasslands, move from more intensive regimes to extensive regimes. This can increase profitability!
- Look at using feed additives and novel feeds to reduce methane emissions from sheep and cattle, and using breeds that produce less methane.
- Exploit market opportunities for sustainable and climate friendly meat from the Dales.
- Prepare for government schemes to supporting resilient and climate friendly agriculture.
- Get ahead of the game by planting trees, improving hedgerows and maintaining our peatlands, and where feasible practice natural flood management.
- Explore commercial opportunities for agroforestry, and look at bioenergy and renewable energy production opportunities (National Park permitting!).

For more information:

Food loss and waste in UK - https://wrap.org.uk/food-drink

Farming NFU - https://www.nfuonline.com/news/latest-news/achieving-net-zero-meeting-the-climate-change-challenge/

Future changes to subsidies - https://www.gov.uk/government/publications/future-farming-changes-to-farming-in-england/farming-is-changing-heres-what-you-need-to-know-august-2019-web-version

Upper Aire flood management https://www.ywt.org.uk/wildlife/conservation-action/west-yorkshire/river-aire

Upper Ribble Catchment plans are contained in https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/293727/Ribble_Catchment_Flood_Management_Plan.pdf

CDC Climate Emergency Strategic Plan will be available on https://www.cravendc.gov.uk/