

Emissions from UK food industry far higher than believed

New report finds technology and behavioural changes required to cut emissions from food

The food we eat accounts for 30% of the UK's carbon footprint, according to a new report published today by WWF-UK and the Food Climate Research Network. Previous estimates put the figure closer to 20%, but this study is the first to incorporate land use change overseas, increasing the estimate of emissions attributed to food consumption in this country.

Land use change, mainly deforestation, is a major source of climate changing emissions. Each year world-wide, an area of forest equivalent to half of England is lost. The expansion of the food system is the biggest driver behind this as land is cleared to grow crops and rear animals.

Given the extent of food consumption on the UK's overall emissions, WWF-UK and the FCRN are calling for a radical change to the country's food system to help stop deforestation and reduce the scale of emissions from the food chain.

The new report – *How Low Can We Go: an assessment of greenhouse gas emissions from the UK food system and the scope for reduction by 2050* – assessed various scenarios that explored what these changes might look like. Both technological and behavioural initiatives were tested, including decarbonisation of the energy used in the food chain, improved efficiencies and changes in consumption of meat and dairy products.

If the food industry is to play its part in keeping temperature rises below two degrees, emissions need to be cut by at least 70% by 2050. The report concludes that no one solution alone can reduce emissions to this extent. WWF-UK and FCRN are urging Government and industry decision-makers to recognise that a focus on technology alone is not enough – food consumption patterns need to change too.

Mark Driscoll, head of WWF-UK's One Planet Food programme said: "The full impact of our diets on climate change is astonishingly high – this report shows that. This makes the target to cut emissions by at least 70% by 2050 a daunting task, but not an impossible one. We must stop chewing over some of the issues and start making change happen – both in terms of technology and behaviour."

Tara Garnett, head of the FCRN said: "We now know enough to conclude that the food system contributes very substantially to the problem of climate change. We also know enough about where and how the impacts arise to start doing something about them. Business as usual – and even business as usual 'lite' – is no longer an option."

In terms of the impacts of food consumption the report found:

- The food chain's contribution to overall UK consumption-related emissions is 20%. However, when land use change is included this increases to 30%.
- All stages of the UK food chain give rise to emissions, with the breakdown as follows: production and initial processing (34%); manufacturing, distribution, retail and cooking (26%) and agriculturally-induced land use change (40%).
- Livestock farming accounts for 57% of agricultural emissions and is also responsible for three quarters of land use change emissions.

Solutions-wise, the report concluded that there is no silver bullet to achieve such reductions – a combination of activities and changes will be required. These include:

- increasing production efficiency, including improved crop yields and changes to animal feeds to reduce methane emissions
- a significant switch to non-carbon fuels and increased energy use efficiency
- changes in the types of food we consume

The idea of collaboration – between producers, processors, retailers, NGOs and Government – is highlighted in the Government's recently published Food 2030 document, which sets out a vision for UK food. This should be applauded. The role of sustainable diets and a commitment to defining them will also be an important step.

Dietary changes will also ease land pressures, in terms of reducing the amount of land needed to produce the food we consume. While this study did not consider the impact of diet on land use change in detail, nor deal with the issue of land quality, and its potential to produce different types of food, these ideas will be dealt with in a follow-up study tackling the question of how changing consumption will affect land use.

For more details and to receive an embargoed copy of the summary and report, contact David Burrows: dburrows@wwf.org.uk 07917 831640

Notes to editors

- This report – *How low can we go: An assessment of greenhouse gas emissions from the UK food system and the scope for reduction by 2050* – forms part of WWF-UK’s wider One Planet Food programme. This programme incorporates the whole food chain, from the production of commodities (like palm oil and soya) through processing and on to consumption and disposal. The goals of the programme are to radically improve the key environmental impacts of the food that is eaten in the UK, including our impact on the parts of the world richest in biodiversity. This is a complex task, and since 2008 WWF has been working in collaboration with scientists and key actors in the food system – businesses, policy makers, consumer organisations and other non-governmental organisations – to understand the impacts of the food consumed in the UK, whether grown here or imported from abroad.
- The way we live is leading to environmental threats such as climate change, species extinction, deforestation, water shortages and the collapse of fisheries. WWF’s One Planet Future Campaign is working to help people live a good quality of life within the earth’s capacity. For more information visit www.wwf.org.uk/oneplanet<<http://www.wwf.org.uk/oneplanet>>
- The Food Climate Research Network www.fcrn.org.uk is a UK research council-funded initiative based at the University of Surrey. Its aim is to understand how the food system contributes to greenhouse gas emissions, and to research and promote ways of reducing them. Its focus is broad, encompassing technological options, behaviour change and the policy dimension.
- In 2008, the Food Climate Research Network published *Cooking up a Storm* (<http://www.fcrn.org.uk/fcrnPubs/index.php?id=6>), which estimated that our consumption of food in the UK, from agriculture through to consumption, accounts for 19% of all the greenhouse gas (GHG) emissions generated through the goods and services we consume. It also argued that a reduction of up to 70% should be possible if we deployed a mix of technological improvements and changes in consumption. The report recommended that Government should commit to reducing emissions by this amount, by 2050, and should set out a road map for how it intends to do so, stating what proportion would be achieved through technological and managerial improvements; and what from changes in the balance of what people eat. This recommendation and WWF-UK’s desire to understand what approaches are needed to reduce GHG emissions from food by 70% provided the impetus for WWF-UK and the FCRN to join forces in commissioning this new report.