# Food, farming and climate change: From culprit to champion?

***How can we shift to radically decarbonised, climate-resilient food & farming?***

Report of Business Forum, 21st November 2017

**Why food, farming and climate change matter**

Climate change is a symptom of the way that humans have treated the world. Its existence is an indication that humans have not looked after and cared for the planet in a responsible, or sustainable, way. Responding to climate change requires a coherent approach driven by greater co-operation by everyone

We are entering a period of increasing climate uncertainty, one where greenhouse gas emissions are once again on the rise[1]. The effect that this will have on our food and farming systems is yet to be fully understood, but the impacts are likely to be significant. What is known however, is that the future is disruptive no matter what.

*"Any company that is reliant on agricultural systems should be calling for urgent comprehensive and society-wide action on climate change."*

According to the carbon budgets presented in the last IPCC report[2], to have a greater than two-thirds chance of avoiding crossing the 1.5°C threshold – set out in the 2015 Paris Agreement – we have the equivalent of four years of current greenhouse gas ('GHG') emissions left. For the same odds of avoiding the 2°C threshold, we have 19 years of current emissions.

Beyond these thresholds, we lose certainty as to what our future climate might comprise. That certainty is essential for a functioning and resilient agricultural system that can adapt to these potential changes. As such, there is a need for the food and farming sectors to play a full and important role in mitigating and adapting to the effects of climate change.

*"Previously complicated discussions surrounding science-based targets have become very simple – everything must be decarbonised now. It is no longer good enough to be a lower carbon business, the aim must be zero carbon, or net positive and restorative."*

Avoiding the '2°C scenario' will require the complete transformation of our energy, food and transportation systems. To do this companies must think about climate change in strategic terms; seeing it both as a strategic risk but also as means of exposing opportunities that could arise, or thinking about operations and production in a low carbon way.

**KEY POINTS FROM BUSINESS FORUM MEETING**

- Climate change is a major food and farming issue that, until relatively recently, has been too low on the 'priority list'. Despite this, there is an urgent needed for the food and farming sectors to adapt to and mitigate the effects of climate change.
- Climate change poses a significant risk to food production, food consumption, and ultimately to companies' future profitability.
- Companies need to have a better understanding of their exposure to climate risk. An understanding and discussion of that risk should consider the wider context, including impacts on supply chains, customer behaviours and the public infrastructure on which businesses depend.
- Corporate carbon targets need to be informed by what is required, rather than what feels achievable or looks practical. Quite simply, food and farming systems need to decarbonise as fast as possible.
- One challenge is that few, including Government, consider food and agriculture to be a single entity from farm to fork. Rather, it is viewed in the context of a series of unconnected departments - retail, producers, manufacturers, ministries - which underplays its total impact and makes it harder to find joined-up solutions.
- Regenerative agricultural practices were discussed as a means of helping drive the low-carbon economy. Companies investing in this area should expect long-term returns (one case study suggested 10-15 years) on their investment. The question of who will cover the cost of transitioning to regenerative agricultural systems was raised.
- Brands have a responsibility to use their influence, agency and power to bring about rapid change within the sector. It was suggested that a coalition of companies committed to the rapid reduction of emissions within supply chains could be formed.

**The 'fat tail' of climate risk – impacts on assets and operations**

The 'fat tail' of climate risk refers to the likelihood of very large impacts being greater than we would typically statistically expect. The latest scientific evidence demonstrates that climate change is happening faster and more extensively than many, companies, are perhaps prepared to admit.

To fully realise the likely and potential impacts of climate change, companies should look beyond their owned assets and operations. Considering the impacts from a wider viewpoint to include e.g. supply chains, customer behaviour, public infrastructure could lead to a better understanding of a business's real exposure to climate risk.

To have a comprehensive understanding of climate risk however, requires consideration of both the physical impacts and any likely societal response. It is important to acknowledge that governments, investors, citizens and competitors need to react to climate risk and change their behaviours.

**A commitment to decarbonise through advocacy, innovation and collaboration**

The challenge is so great and so urgent that collaboration and advocacy is the key. Companies need to commit to becoming zero carbon or net positive and restorative, even if they are unsure as to the exact pathway towards this goal. To facilitate this will require both practical and policy-level action and the engagement of all parts of food and farming sectors. Ultimately, it is reliant on innovation, collaboration and the sharing of ideas.

The shift towards lower-carbon options within the energy sector is proof that big solutions are possible. Regenerative agricultural techniques have the potential to enhance and sustain the health of the soil and, in the process, sequester carbon. However, there are questions over which new techniques work well and who should cover the cost of these transitional technologies.

**Driving down emissions through bold corporate climate leadership using science-based targets**

It was suggested that mechanisms for driving down emissions must be ambitious and unafraid, and that key players in the industry must agree to take on the responsibility for effecting change.

There are already examples within the sector to support this. Walmart's Project Gigaton is "a verified science-based target emissions-reduction plan". The company aims to, "reduce its absolute Scope 1 and 2 emissions by 18 percent by 2025. The retailer will also work to reduce $CO_2e$, or carbon dioxide equivalent, emissions from upstream and downstream Scope 3[3] sources by one billion tons (a gigaton) between 2015 and 2030.

The role of the UK Government is clearly vital here. To date, the UK Committee on Climate Change has not included agriculture in its carbon budget, because of uncertainties over data. However, food and farming will soon be included and this will be an important step in acknowledging the contribution of these sectors, and providing clarity over the speed of the GHG reduction needed.

**What should food companies do?**

Companies need to have a wider, comprehensive understanding of their exposure to climate risk at every point in their operations and supply chains. Crucially, targets will not be met unless people in the UK (and elsewhere) switch away from carbon-intensive diets, and waste less food (with associated GHG impacts).

Corporate carbon targets need to be informed by what is required, rather than what feels achievable or looks practical.

Companies must become more effective and vocal advocates of a rapid wider, societal decarbonisation.

A new collaborative mindset must be embraced by those working within food and agricultural systems. New technologies should be explored, albeit not unquestioningly. However, many of the solutions are already out there, just not widely distributed.

This is a report of the Business Forum meeting on Tuesday 21st November 2017. We are grateful to our keynote speakers, **Iain Watt** of Forum for the Future and **Lord Deben**, former Minister for Agriculture, Fisheries and Food and Chairman of the UK's independent Committee on Climate Change. The meeting was chaired by **Helen Browning**, Chief Executive of the Soil Association and Council member of the Food Ethics Council. The views expressed in this report do not necessarily represent those of the Food Ethics Council, nor its members. For more information on the Business Forum, contact Dan Crossley dan@foodethicscouncil.org +44 (0) 333 012 4147.

[1] Global Carbon Project (2017) Carbon budget and trends 2017. [www.globalcarbonproject.org/carbonbudget] published on 13 November 2017.
[2] IPCC Fifth Assessment Report (WGI AR5) on Consistent Treatment of Uncertainties, Intergovernmental Panel on Climate Change (IPCC), Geneva, Switzerland.
[3] GHG Protocol Policy and Action standards. Corporate Value Chain (Scope 3) standard.