

Sustainable Agriculture – how the UK & international agrifood industry needs to rise to the challenges of a food supply chain fit for the 21st Century

It is now more than a quarter of a century since the Brundtland Commission (1987) defined sustainable development as “*development that meets the needs of the present without compromising the ability of future generations to meet their own needs*”. With significant pressures facing the agrifood and drink industries, now is the time for the industry to take action to respond to the threats of resource shortages and push for a more sustainable future.

Pressures facing global agriculture

- Seventy percent of the world's accessible water is used by agriculture
- Almost 38% of the world's available land is used by agriculture
- There are one billion underfed/malnourished people on the planet
- There will be a predicted 30% increase in global population to 9.7 billion by 2050
- Food waste, if it were a country, would be the third highest emitter of greenhouse gases after China and the United States

Yet sustainability has been tarnished by various broad applications of the term. It is now as much connected to short term cash flow or macrofinancial impacts, as it is to the original three pillars of sustainable development – **social, environmental and economic**.

Clearly, delivering improved economic returns through actions to improve sustainability measures is a positive measure for many businesses and policy makers. But with recent successes in the UK in reducing greenhouse gas (GHG) emissions, many are now questioning why investment in sustainability should continue.

Although GHG emission reductions have been achieved in the UK, growing pressures on global emissions, and the future targets the UK is committed to, means that action needs to be taken now to support sustainability and achieve the ambitions of the Brundtland Commission.



Policy implications for UK agriculture

The Climate Change Act 2008 is probably the most important manifestations of government policy and intent in the area of carbon emissions. It states that UK CO2e emissions need to reduce to 80% of 1990 levels by 2050.

The UK government followed up the act by producing the Low Carbon Transition Plan which requires agriculture to demonstrate an 11% reduction on 2009 levels by 2020.

Legislative changes require the formal reporting of GHG emissions under the Greenhouse Gas Mandatory reporting, but there is a need for an improvement in the consistency and comparability of reporting metrics. We consider there is a need to assist the supply chain in identifying mechanisms to improve sustainability practices along the following themes.

Reporting the triple bottom line Measurement and management doesn't need to be complicated

Available sustainability metrics

- Ecosystems and biodiversity
- Natural resource use and management
- Pollution management (e.g. nitrates, phosphates, & pesticides)
- Resource efficiency and energy management
- Global impacts, inputs and greenhouse gas emissions
- Waste management and managing nutrients
- Producing affordable, quality food and drink
- Occupational health and safety
- High animal health and welfare
- Promoting the rural economy
- Employment terms and conditions
- Human rights
- Employee health and welfare
- Economic viability of the farming and food supply chain
- Increasing efficiency and competitiveness
- Sharing economic benefits with works and local economy
- Business ethics
- Education, 'open days', peer to peer support
- Traceability
- Hygienic production and handling
- Quality of inputs
- Quality management systems

Sustainability in practice across the supply chain

One sector of the industry where we have seen considerable effort made to report and engage farmers in environmental reporting is on the calculation of carbon emissions in the dairy sector. Organisations and businesses such as DairyCo, Arla, Tesco, Sainsbury's, First Milk and Muller Wiseman.

In addition, we are actively working on these issues with our parent company, Genus plc. We have shown the benefit of using high quality genetics as a key measure to reduce on-farm greenhouse gas emissions. This not only reduces the footprint of a farm, it can also deliver profitability.

We have applied our expertise to support the sector to understand environmental impacts, such as GHG emissions or water consumption and sought to quantify these impacts to establish supply chain baselines and benchmarks. To add value, we then begin to segment suppliers into relevant themes and use the motivations/attitudinal behaviours to

group suppliers and deliver tailored messages on how and why to implement change at farm level. This has enabled us to understand, in detail, the profitability impact of making carbon reductions at farm level.

Similarly at an EU level, we have seen:

- work conducted with dairying sector region of Brittany (France) which suggested that Brittany should have fewer, but more intensive farms, thereby reducing the overall nutrients entering waterways but reducing regional production by 8-30% to achieve other goals such as forestation and providing recreational amenity
- an assessment of sustainability priorities for chicken meat production in Italy which surveyed groups of farmers, consumers and scientists to rank the relative importance a range of sustainability indicators and inferred implications for different forms of chicken production. They found that organic poultry production was not much better than conventional agriculture across all the sustainability issues assessed

To expand beyond these sectors, we can find good examples across the agriculture and food supply chain to understand and address sustainability.

Environmental Leadership

Tesco through their food waste element of their Corporate Social Responsibility (CSR) report, stating the level of waste arisings (approximately 30,000 tonnes per annum), it signalled a commitment by Tesco to make significant change.

Economic prosperity

SAB Miller and Cargill have taken measures to shorten supply chains and work more closely with farmers and producers across the globe. Clearly, there are advantages to these companies to guarantee markets, local communities have benefited from skills development, transfer of knowledge from industry experts, and increasing income through more stable contracts.

Social opportunity

The foodservice company, Brakes have reduced waste by 97% with a key strand of this achieved in partnership with FareShare. Brakes have contributed approx £1 million in meal equivalents to the organisation by developing a system to better review and redirect product that was close to life. Each night a maximum pick is performed to each FareShare unit, this is palletised and sent to a regional distribution centre on the back of a scheduled delivery.

Time to take action

Attention is now required to move to action rather than measuring to reduce emissions. While momentum is building on carbon reduction, it would be easy to forget that sustainability is more than just a single issue concern. Carbon is just one piece of the puzzle. "Switched on suppliers" have taken the opportunity to embed sustainable thinking and practices across all aspects of the business; for example, in the development of strategies, M&A activity, the implementation of LEAN practices and so on.

Moreover, it is increasingly expected that businesses demonstrate evidence of sustainable practice to key stakeholders, particularly consumers, shareholders and government. The introduction of mandatory reporting of GHG emissions by publically listed companies following the Companies Act 2006 (strategic report and directors report) 2013, is just one example of this.

It is our view that now is the time to act, rather than waiting to see what may or may not happen with climate change and other potential risk factors. This is supported by the fact that many of the world's top listed companies who have stated in recent research that sustainability is now firmly cemented in the 'top 1 or 2' ranked business strategy objective.

The key to action is in the 'how' and we can offer consultancy advice and support to help your company and/or supply chain. We have worked with a range of clients to help achieve these requirements. In particular, in the following areas:

- How sustainability can integrate with your objectives and vision
- Gaining commitment from your employees and suppliers to deliver this vision
- Developing tailored action plans to achieve sustainability across the business
- Establishing the leadership approach to delivery sustainability at every level of your business

As a final comment, there are some excellent examples of companies and organisations around the world of how sustainability has been incorporated into all aspects of their business plans. There are still many where there is work to be done. The really clever businesses have worked out that these sorts of initiatives, as well as providing social and environmental benefits also have an economic benefit too.

If you think Promar could help you with any of the issues discussed in this issue of Insight, please contact:

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