

# Sustainability





## The time is now

# Working towards a sustainable future for the food industry

In the face of significant global disruption, the food industry is battling twin challenges – to produce more food, while transitioning to more sustainable practices. To build more sustainable, regenerative and resource-efficient food value chains, key players need better visibility of the producers in their supply chain and easier access to reliable data from producers.

# Introduction

**The goal of sustainable and regenerative agriculture is to meet today's food demands without compromising the ability of future generations to meet their needs. Keeping the three pillars of sustainability in sharp focus – that is, environmental quality, social responsibility, and economic viability – it's about making food systems more resilient and more productive, while contributing to a healthier planet and better nutrition.**

## The food sector needs to embrace sustainability

There's much work to be done in creating more sustainable food systems. A recent World Bank report says, "The agri-food system is severely off course in helping us achieve the [United Nations'] Sustainable Development Goals related to hunger, poverty, health, land use, and climate change."<sup>1</sup> In a similar vein, the UN Food Systems Summit declared in 2021 that the way we produce and market food is harming our environment.<sup>2</sup>

These bold statements are backed by significant statistics. Agriculture contributes 24% of greenhouse gas emissions and consumes 70% of freshwater.<sup>1</sup> With, 60-70% of the world's ecosystems degrading faster than they can recover the global food system is 'severely off course'.<sup>3</sup>

There is an urgent need to address the key sustainability issues in agriculture and food production and make them part of the solution to improve global sustainability.

Yet industry players are up against a range of challenges, including farming livelihoods, the lasting effects of historic poor farming practices, the globalisation of the industry and resulting food-miles concerns, changes in consumer behaviour and preferences.

And, of course, the elephant in the room: industry economics. The food industry, like so many others, has always been driven by the goal of delivering more product at lower cost. After all, food needs to be affordable. As one report explains, "Our food system has been shaped ... by the 'cheaper food' paradigm. Policies and economic structures have aimed to produce ever more food at ever lower cost from the mainstream food system. Intensified agricultural

production degrades soils and ecosystems, driving down the productive capacity of land and necessitating even more intensive food production to keep pace with demand."<sup>4</sup> The question is, how to make food both affordable and sustainable?

## From these challenges come opportunity

With all of the above challenges in mind, the food industry, from producers through to retailers, have an opportunity indeed, the imperative – to make food production more sustainable. Doing so will reduce the risk of both supply disruptions and reputational damage.

The transition to more sustainable food supply, and regenerative agriculture also represent an exciting opportunity for rewarding producers for positive practice changes and also to introduce stronger collaboration with better shared understanding of current real-world operations and the practicalities and barriers producers face in evaluating and adopting alternative approaches.

It's why, more than ever before, all players in the sector need to reliably and consistently measure sustainability, and use these metrics and reliable baselines to identify and promote positive improvements across the supply chain.

As we'll explore in this report, by arming yourself with insights into your supply chain, the sustainability progress of your suppliers and footprint of products, you can engage with suppliers and producers across both simple and complex multi-tier supply chains to make a real difference.

## Our global mission

TELUS Agriculture & Consumer Goods is on a mission to help create a unified, trusted and sustainable value chain for better producer-to-consumer outcomes.



## Three priorities for the food industry

**Pressure is mounting on food businesses to take action on three key issues facing the sector. By realising these goals, food businesses will be one step closer to a sustainable future.**

### 1. To reduce food waste and improve food security

As the world's population grows, so too does the need to reduce waste and improve food security. Food scarcity is a significant global problem, with up to 811 million people suffering from hunger around the world in 2020.<sup>5</sup> The United Nations predicts that, by 2050, food production needs to grow more than 70% to meet the demand of 9.7 billion individuals.<sup>6</sup>

### Food wastage is a serious problem

A key challenge here is protecting and preserving the foods we already produce. With around one-third of all food lost or wasted each year,<sup>7</sup> solving the issue of food waste is imperative. Currently, food waste uses up vital resources and gets in the way of realising goals around improved yields. When foods aren't consumed, all the resources and land that was used to grow, harvest, transport, and package the food are wasted, too – which leads to a massive squandering of vital resources.

There is now irrefutable proof of the damage that food waste does to the climate. It is a significant contributor to greenhouse gas emissions – with around 6-8% of all human-caused greenhouse gas emissions tied to food wastage,<sup>5</sup> and 3.3 billion tons of CO<sub>2</sub> equivalent from food loss each year.<sup>8</sup> If food loss were a country, it would rank as the third highest greenhouse gas emitter globally, after the US and China.<sup>8</sup>

So where does this wastage occur? There are key points across the supply chain where food waste is more of a problem, including harvest, post-harvest, processing, and distribution – not to mention at the point of consumption, particularly in Europe, North America, Oceania, and industrialised Asia.

### Improving food security is critical

The continued use of unsustainable farming practices have an adverse impact on soil, water, pollinators and farmland habitats – which in turn puts food security at risk. When you also account for external impacts like natural disasters, wars and global pandemics, the need to improve food security becomes even more important. Indeed, food security has emerged as a key goal for organisations, governments and agri-businesses across the globe.

For example, the World Bank is working with partners across the globe to build more secure food systems – exploring strategies such as climate-smart farming techniques that produce a more diverse mix of foods; improving hygiene in food distribution channels, and better linking production and consumption centres; and more.<sup>9</sup> The more that the industry can work together to solve the issues around food wastage and food security, the less risk of inadequate supply. And the better off the sector – and the world's population – will be.



## 2. To meet new demands for sustainable food production

‘Eco-friendly’, ‘ethical’, ‘organic’. These are no longer buzz-words. Sustainability has cemented itself as an everyday goal for people across the globe. Universally accepted as the right thing to do, it’s reshaping entire markets and systems – with companies that rank well on ESG metrics consistently outperforming the rest of the market.

Yet there is still work to be done. A global review finds that 40% of firms’ green claims could be misleading.<sup>10</sup> And those found to engage in greenwashing risk negative exposure and unwanted fines. For example, Kohl’s and Walmart recently paid penalties of \$2.5 million and \$3 million respectively, for falsely marketing rayon textile products and bamboo.<sup>11</sup>

As sustainability moves further into the spotlight, customers and industry leaders are more likely to scrutinise any claims you make about environmentally friendly products. It’s more important than ever to have trusted data to back up your sustainability claims.

### Consumers are demanding change

A key driver of change is consumer demand. More than ever, people care about climate change mitigation and make purchasing decisions linked to sustainability. Any food organisation that sits on its hands in the sustainability stakes risks getting left behind.

Across all retail sectors, searches for sustainable goods have increased globally by 71% since 2016.<sup>12</sup> In the food industry, almost half (49%) of global consumers now consider sustainability attributes when purchasing food and beverages – particularly in the dairy, meat, and plant-based equivalent categories.<sup>13</sup> Importantly, two-thirds of Gen Z and millennial buyers – who are the emerging big spenders – rank the environment as important in their purchasing decisions<sup>14</sup> and are more willing to seek out goods differentiated as sustainable.

### Pressure from industry and governments

Pressure to become more sustainable is also being applied by governments, regulators and even investors. These groups are driving change and forcing food organisations to become more sustainable.

Around the world, governments are introducing policy to encourage more sustainable farming practices, bring down emissions, and foster more collaboration across the value chain. For example:

- The UK's Net Zero Strategy is working towards zero emissions by 2050 – and, while it acknowledges that the food industry is very difficult to decarbonise completely, key players in the industry will be expected to conform to new mandates.
- In Finland, the Climate Programme for Finnish Agriculture is committed to enhancing the sustainability of the food system – making it a top performer, along with Austria and Sweden, in the 2021 Food Sustainability Index.
- The US Department of Agriculture has announced a \$1 billion investment – the Partnerships for Climate-Smart Commodities – to support America's climate-smart farmers, ranchers and forest landowners.
- The Australian Government's Smart Farms program provides funding to support the development and uptake of tools and technologies for farmers and land managers to improve land management practices and biodiversity, and to protect soils, water and vegetation.

Shareholders and the investor community are also putting more pressure on food businesses to demonstrate their sustainability credentials. As part of the \$35 trillion ESG investment industry,<sup>15</sup> investors are exploring regenerative agriculture as a way to fight climate change, with sustainable agriculture hitting the top five for the first time in 2021, when it comes to the most important investing issues for those investing in sustainable pursuits.<sup>16</sup>

A final pressure – or reward, depending on how you look at it – are moves to incentivise better outcomes on the land. Planting trees and allowing native forests to regenerate are a means to store carbon, allowing farmers to earn and trade carbon credits. With the market for carbon credits tipped to hit \$50 billion by 2030 – which represents 15-fold growth since 2020 – there are huge opportunities for farmers and responsible agribusinesses to prosper in this market.<sup>17</sup>



### 3. To tackle the impacts of agriculture, one sustainable step at a time

As we explored in the introduction, traditional farming methods have long had an impact on the environment. These impacts can differ from country to country. For example, the largest source of agricultural emissions in the United States is soil management.<sup>18</sup> In Australia, the majority of agricultural emissions come from methane.<sup>19</sup> Driven by economic imperatives, farmers and food businesses have become heavily dependent on inorganic fertilisers, pesticides, energy, land and water, and on unsustainable practices such as monocropping and heavy tillage.

Biodiversity has suffered as a result. Since 1970, wild mammal populations have fallen by a staggering 82%,<sup>4</sup> with bird, fish, amphibian and reptile populations also experiencing an alarming decrease in size. Insect populations are also threatened, with farmland in climate-stressed areas (where most nearby natural habitat has been removed) losing 63% of its insects, on average, compared with as little as 7% for farmland where the nearby natural habitat has been largely preserved.<sup>20</sup> Given that biological diversity sustains life on earth, mitigating further decline is now considered critical.

As well as impacting animal populations, intensive agriculture has affected soil and forest health; as well as water and pollution levels. For example, when natural land is converted into farmland, it reduces the amount of carbon the soil can store by 50-75%.<sup>21</sup> And deforestation continues apace, with the proportion of forested area falling from 31.9% of the world's total land area in 2000 to 31.2% in 2020 – a net loss of almost 100 million hectares.<sup>22</sup>

As a recent article in Science soberly pointed out, “Meeting the 1.5°C target [of the Paris Agreement] requires rapid and ambitious changes to food systems.”

<sup>23</sup>

#### Food organisations can turn the tables

While the statistics are certainly sobering, food organisations can help turn the tables to lessen the impacts of agriculture and help to address these serious impacts. It's all about acknowledging and embracing the mitigation potential of the sector.

For example, changes to farming practices can rehabilitate ecosystems. As one article succinctly puts it, “Regenerative agriculture ... enhances the entire ecosystem of the farm by placing a heavy premium on soil health with attention also paid to water management, fertiliser use, and more. It is a method of farming that improves the resources it uses, rather than destroying or depleting them.”<sup>24</sup>

And it works. A long-term study of sustainable agriculture, compared to conventional farming systems, examined four farming systems with different crop rotation design and material input use – including a two-year and a four-year rotation conventional system, an organic and a low-input system. Results from the first eight years of the project showed that the organic and low-input systems had yields comparable to the conventional systems in all crops: tomato, safflower, corn and bean, and in some instances yielding higher than conventional systems.<sup>25</sup>





## What's holding food businesses back from change?

Like others, the food industry has its sights set on a sustainable future. By and large, growers, farmers, food producers and suppliers are all aligned on adapting their practices and processes to meet sustainability goals around environmental quality, social responsibility, and economical viability – while also delivering food security to a growing population.

Yet, to get there, they need to overcome a range of obstacles. The good news? Tools, technologies and solutions exist in the market today to help with all of them.

### 1. Lack of transparency

A common roadblock in many food organisations is a lack of transparency, particularly given the complexities of the food system. For example, can your sourcing or procurement manager get the information they need from a potential supplier or grower to make the right decisions from a sustainability stand-point? For many, the answer is no.

It can be very hard to understand the current sustainability position of your supplier or grower base without full transparency and visibility into their networks. And, without this visibility, it is difficult to inform programs that make sense for your sustainability agenda – or to enable and incentivise positive change.

### 2. Technology limitations

Enterprise supplier management systems are good, up to a point. Yet many organisations try to use standalone tools that demand the duplication of data capture and input, which is not only time consuming but can lead to errors. Others are juggling a range of different systems to measure sustainability, making it hard to gain clarity or a central source of truth around sustainability performance.

### 3. Data issues

In the quest to become more sustainable, data quality is a significant issue. Many organisations expend significant effort addressing and correcting quality concerns; others don't trust their data sufficiently to inform decision-making, plan scenarios for process improvements, or justify the investment in sustainability campaigns.

The quality of data can be compromised for a number of reasons. It may be stored in different places, using different schema; it may be collated manually; or duplicated unnecessarily. Some organisations collect retrospective, static data on supplier sustainability, but have no way of using the collected data to inform and drive supply chain sustainability improvement activities.

There is also the issue that a lot of farm data is submitted by agronomists as recommendations or plans for a farm – instead of data from the farmers on past metrics.

Organisations are crying out for one holistic place to gather sustainability metrics they can share with customers; and integrations / partnerships to bring data together in a shareable way.



## 4. Lack of sustainability vision

If sustainability is not integrated into current business processes, solutions and tools, then your sustainability initiatives won't get the attention they need. It takes significant effort to collate supplier data and ensure that it's fit-for-purpose for reporting requirements and schemes; and this requires top-down support from the executive team.

It's why TELUS Agriculture & Consumer Goods is connecting the value chain to reliably and consistently measure sustainability. We want to transform supply chain sustainability beyond compliance and enable proactive planning for future improvements.

## 5. Lack of in-house expertise

Managing sustainability requires a complex set of skills, and it can be difficult for organisations to hire the right people for the job. The problem can be compounded when sustainability is tacked on to other roles – for example, adding it to the remit of a compliance or food safety officer. Given the issues the industry faces today, sustainability requires dedicated resources and solutions that can audit suppliers' sustainability credentials via an easy-to-use and adaptable self-assessment tool.

# How TELUS Sustainability Management helps you realise your sustainability goals

Digital transformation can support every food organisation's sustainability goals. And TELUS Sustainability Management is a powerful first step. With transparency and collaboration across the supply chain at its core, it enables your entire ecosystem to work towards a common goal of driving sustainability improvements – while ticking off on all your existing supply chain compliance requirements.

## With TELUS Sustainability Management, you can:

- **Simplify supplier sustainability approval and assessments**  
Make it easy for suppliers to provide structured sustainability data, and manage your supplier audits in line with common sustainability frameworks.
- **Tackle complex sustainability metrics**  
Measure critical but complex sustainability dimensions such as carbon using highly trusted and directly connected carbon modeling services.
- **Empower your suppliers and farmers to improve and collaborate**  
Transform from compliance and retrospective reporting to driving farm improvements. Provide suppliers/farmers with robust sustainability evaluations, smart benchmarking, and tools for the collaborative discovery and planning of improvements.
- **Inform, incentivise and measure your sustainability programmes**  
Gain insights into current sustainability performance and improvement potential across your supply base. Set sector specific targets and incentivise supplier and farm action.

Sustainability Management is a flexible solution that allows you to collect the specific sustainability data you need from farmers and processors with an easy-to-use and scalable tool.



## Ready to become a more sustainable business?

Building a more sustainable supply chain starts with having the right tools in place to collect, measure and report on the sustainability of supplied agricultural products in your supply chain. With Sustainability Management you can identify and promote positive improvements across the supply chain.

Learn more at [muddyboots.com/sustainability](https://muddyboots.com/sustainability)

## Get in touch

For more information about our Sustainability Management solution

[Download a brochure](#)

[Request a demonstration](#)

[sales.mb@telusagcg.com](mailto:sales.mb@telusagcg.com)

### References

1. World Bank Group, 2021, What's Cooking: Digital Transformation of the Agrifood System
2. United Nations, 2021, UN Food Systems Summit
3. The World Bank, 2022, Environment
4. Chatham, 2021, Food system impacts on biodiversity loss
5. United Nations, 2022, Global Issues: Food
6. UN Environment Programme, 2021, Worldwide food waste
7. WWF, 2022, Fighting climate change by preventing food waste
8. Markets and Markets, 2021, Cold Chain Monitoring Market with Covid-19 Impact – Global Forecast to 2026
9. The World Bank, 2022, Food Security
10. Gov.UK, 2021, Global sweep finds 40% of firms' green claims could be misleading
11. Federal Trade Commission, 2022, Kohl's Inc., U.S. v.
12. WWF, 2021, Search for sustainable goods grows by 71% as 'eco-awakening' grips the globe
13. Food Business News, 2021, Consumers seek more significant sustainability benefits
14. McKinsey, 2022, Rise of the inclusive, sustainable consumers
15. Bloomberg, 2021, 'Wild West' of ESG Ripe for a Crackdown, Veteran Investor Says
16. MarketWatch, 2021, Sustainable agriculture is the next way ESG investors can fight climate change
17. McKinsey and Company, 2022, A blueprint for scaling voluntary carbon markets to meet the climate challenge
18. FB, 2021, Previewing 2019 agricultural emissions
19. Climate Council, 2021, Agriculture's contribution to Australia's greenhouse gas emissions
20. The Conversation, 2022, Climate change triggering global collapse in inset numbers
21. Natural History Museum, 2021, Soil degradation: the problems and how to fix them
22. FAO, 2021, Tracking progress on food and agriculture-related SDG indicators
23. Clark et al., Science, 370: 705-708, 2020, Global food system emissions could preclude achieving the 1.5 and 2C climate change targets
24. The Climate Reality Project, 2019, What is regenerative agriculture?
25. Christos Vasilikiotis, 2000, Can organic farming "Feed the World"

