



Low Carbon Food Production

**How farmers and food businesses can profit from
decarbonizing the food industry**

EXECUTIVE SUMMARY

September 14, 2022

The crux of the matter and the point of this paper ...

- ❖ The global food industry represents one-third of anthropogenic (human caused) greenhouse gas (GHG) emissions.
 - To prevent catastrophic climate change, almost 200 countries and states have committed to massively reduce GHGs.
- ❖ International commitments are placing the food industry under increasing pressure to adopt low carbon approaches to business.
 - Many businesses see this as a threat and an added cost, leading to defensive postures and few meaningful strategies.
- ❖ This paper takes a positive approach:
 - It positions the adoption of low carbon strategies as a commercial opportunity, and describes the best ways for businesses to successfully adapt and profit from environmental initiatives.

Executive Summary

Climate change represents the greatest environmental challenge facing farmers and the overall food industry. **It also represents one of the greatest opportunities facing farmers and downstream food businesses who have prepared for the broad changes that will surely come.**

Historically, the primary focus of supplier/buyer interactions has been product standards, service levels and cost reduction. Going forward, environmental performance will become an equally important determinant of supplier/buyer interactions. This will occur because **the majority of carbon reduction commitments being announced by retailers and other food corporations will be achieved by farmers and other vendors, not by the corporations themselves.**

Farmers and businesses operating in the food industry must position themselves for the future to ensure that they do not become price takers by having to meet commitments made by corporations who do not have their best interests at heart.

Based on the decades of experience possessed by the authors, this paper addresses a question that lies at the heart of ensuring the future economic and environmental sustainability of nations' agricultural sectors: **How can farmers and other businesses operating in the food industry future-proof themselves by playing a leading role in driving the creation of a low-carbon food industry?**

Establishing and maintaining the collaborative relationships required to enable members of a value chain to achieve outcomes that would be impossible if acting autonomously, regardless of their size and scale, rests on addressing the restricting transactional trading relationships that have defined the food industry since its industrialization in the 1700s.

The term value chain management (VCM) describes the purposeful decision by businesses operating along a value chain to create and retain superior value-generating capabilities by **collaborating as a cohesive unit from strategic, tactical and operational perspectives**. This paper describes how VCM assists farmers and food businesses to monetize low carbon strategies by providing unique forms of agility, robustness and nimbleness. In so doing, **it provides the ability to optimize the utilization of resources and create sustainable competitive advantages, resulting in resilient food chains.**

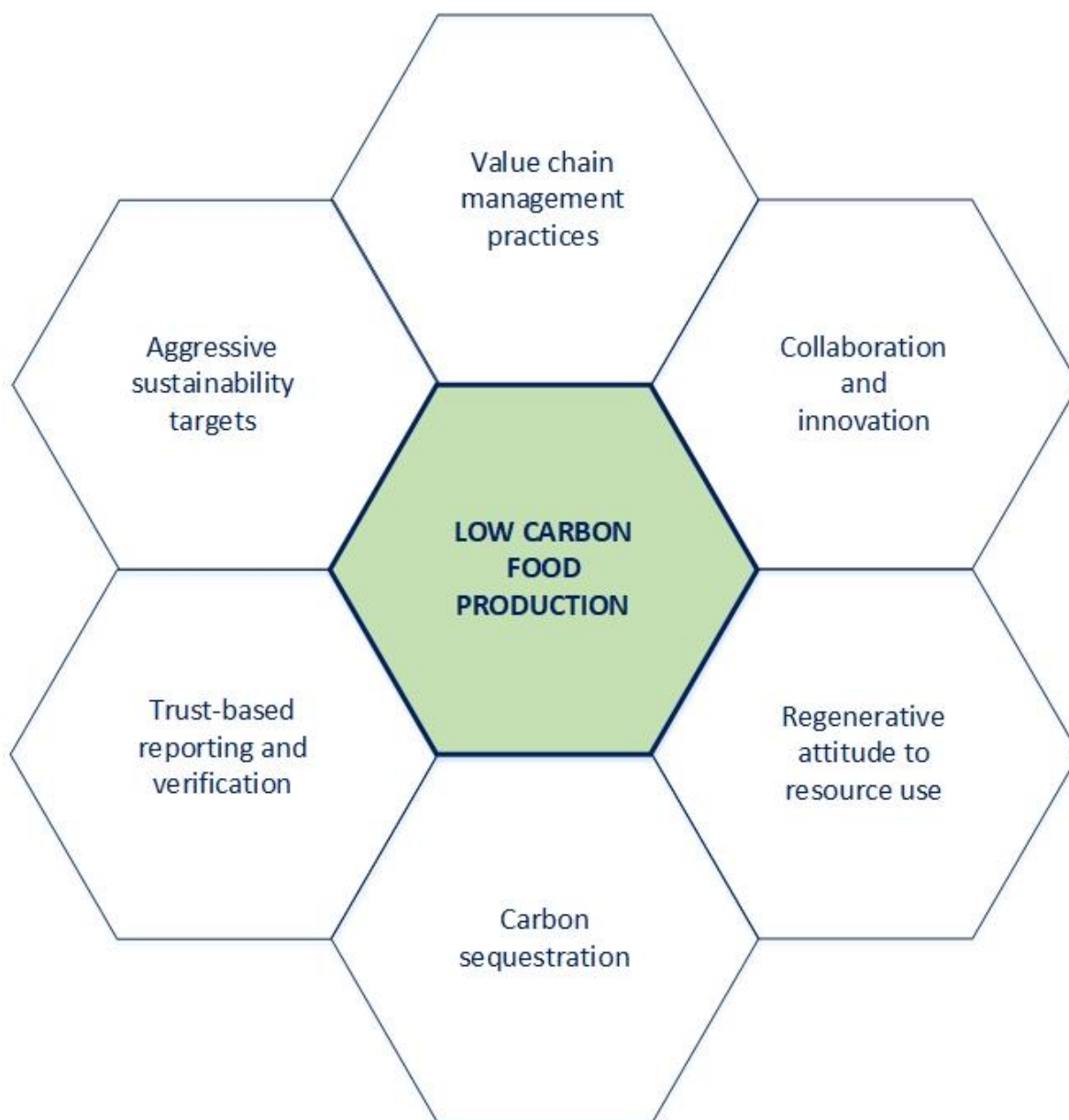
The challenge for farmers and other members of the value chain is to determine the carbon strategy that best suits their operations in the long run, and how they will implement that preferred carbon strategy to greatest effect by partnering with likeminded enterprises. **In reducing carbon, farmers can reduce costs and potentially increase revenue — leading to higher margins, increased profitability and preferential access to high value markets.**

The paper concludes with two appendixes that form a dashboard of options to assist farmers, regardless of the sector in which they operate, and other members of the food industry to determine the low carbon strategy(ies) that best suits them, and subsequently plan, then implement, strategies from a value chain perspective.

Key Takeaways

#1	The ability to adapt to environmental and market-driven change is an increasingly important determinant of sustainable competitive advantage.
#2	Corporations are causing changes to occur, though they are not the primary enabler in decarbonizing the food system. The primary enabler is farmers.
#3	Corporations' need to set then attain aggressive sustainability targets will drive significant changes in buyer/supplier interactions and how "preferred suppliers" are defined.
#4	The adoption of value chain management (VCM) practices provides unique forms of agility, robustness and nimbleness, resulting in resilient low-carbon food systems.
#5	The primary factor in decarbonizing the food system is farmers' and downstream businesses' willingness and commitment to collaborate and innovate; it is not technology.
#6	A "dash for cash" could place farmers at a considerable disadvantage compared to farmers who take a strategic approach in how they monetize low-carbon initiatives.
#7	The gold standard for monetizing low carbon initiatives is trust-based reporting and verification, tied to continual improvement programs. This relies on businesses sharing strong strategically- and operationally-aligned relationships.
#8	The success of low carbon initiatives is dependent on the adoption of mindsets and practices that reflect a regenerative, not extractive, attitude to resource use.
#9	The adoption of low carbon strategies offers farmers the opportunity to transition from a source of carbon emissions to a means of sequestering carbon.

Key Components of Low Carbon Food Production



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