Enabling Smart Growth (ESG) - Opportunities for Australian farmers

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July 2025

Nuffield Australia project number 2414

Supported by

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Executive Summary

Around the world, decisions are being made beyond the farm gate which will increasingly impact how farmers produce food and fibre. These decisions, driven by consumer expectations, investor pressures, government policy and global trade agreements, are rapidly reshaping the agricultural landscape. This report set out to explore the role of Environmental, Social and Governance (ESG) principles governing that change, and their growing influence on agricultural supply chains, market access, farm management, and the future competitiveness of Australian farming systems.

The objectives were clear: to investigate how ESG is being embedded in policy and market settings across key global agricultural trading partners, to understand the mechanisms being used to influence farmer behaviour, and to identify the risks and opportunities for Australian farmers and agri-food businesses as ESG rises in prominence.

The concept of ESG warrants reframing for farmers, from being a burden to an opportunity. The acronym could do with a new definition: Enabling Smart Growth on farms. This could empower farmers to work with ESG goals for their own benefit. In today's market, farmers who actively work against ESG goals, do so at their own peril. Environmental management and agricultural performance can and must work hand in hand.

ESG has evolved from a corporate reporting mechanism into a powerful tool shaping global systems. While Australia's agricultural sector is still largely navigating voluntary ESG frameworks, the trajectory is clear. From carbon border adjustments in Europe, sustainable farming incentives in the United Kingdom, biodiversity markets in Brazil, data-driven environmental initiatives in Canada, and voluntary but significant private sector investment in the United States, ESG is no longer a distant signal. It is here, it is accelerating, and it is becoming embedded in both trade policy and corporate strategy.

This report examines how ESG is playing out globally and identifies 5 major themes.

ESG momentum is fragmented and uneven. While some companies and countries are charging ahead with ambitious ESG strategies, others are slowing down or pulling back. This divergence is driven by a mix of factors, including the complexity of measuring and defining ESG metrics, fear of greenwashing accusations, political shifts, and the growing influence of private capital, which often operates without the same transparency requirements. Some firms have committed heavily to net zero and sustainable sourcing, while others are pausing to reassess feasibility and risk. In the European Union, despite its regulatory leadership, political pressure is mounting to delay or dilute ESG mandates, yet the commercial sector, having already invested significantly, is now pushing for continuity. This tug-of-war reflects the tension between long-term ESG goals and short-term commercial or political pressures. It is a landscape marked by uncertainty, where leadership, clarity and consistency will ultimately determine which regions and businesses stay ahead.

Policy is both a driver and a risk. In all countries studied, government policy is playing a central role in setting ESG expectations. The European Union leads with binding climate and biodiversity regulation. The United Kingdom is grappling with the balance between environmental ambition, farmer profitability and national food security. The United States remains fragmented, with ESG progress driven largely at state and corporate levels. Brazil and Canada, though contrasting in development status, both show strong policy support for

aligning environmental protection with productivity. Japan and South Korea demonstrate how food security concerns are influencing their ESG priorities commercially. In parts of Africa, ESG is driven more by donor funding, NGO involvement and trade access incentives than by domestic regulation.

Metrics matter but there are few globally agreed definitions. Australia has traditionally relied on its reputation as "clean and green", but increasingly, trading partners and companies are demanding verified evidence, particularly around carbon emissions, to support such claims. A common theme across all regions is the growing requirement for measurement, verification and traceability. Currently, there is no globally agreed definition around things like GHG emissions factors and net zero and mechanisms for measurement vary greatly. There is also no mechanism for quantifying appropriate outcome metrics across different soil types, regions and climates making ESG reliant trade sanctions unfair and unjust. Factors such as the ability to quantify emissions, biodiversity, water use, labour practices and governance structures will increasingly become a precondition for doing business. Farmers will increasingly need streamlined, clear, and where possible automated systems and support to meet these expectations.

Markets are moving, with or without formal regulation. Retailers, banks, investors and food manufacturers are embedding ESG into procurement, lending and investment criteria. In Canada, the National Index on Agri-Food Performance and the Canadian Agri-Food Sustainability Initiative are aligning farm practices with international ESG standards. In Brazil, JBS Seara is driving major shifts in animal welfare and circular packaging. In the United Kingdom, Biodiversity Net Gain schemes are unlocking private capital for farmers delivering ecological outcomes. In Japan and South Korea, consumer pressure is pushing individual brands to prove sustainability and animal welfare credentials to maintain trust. Commercial ESG initiatives are actively shaping markets, setting clearer expectations, attracting investment, and creating new value streams. Although these are slow and lumpy, the trend line is there and it remains an opportunity for Australian farmers.

There is no one-size-fits-all approach. ESG implementation varies significantly depending on a country's stage of development, environmental pressures, governance structures and cultural values. In lower-governance environments, achieving environmental or social outcomes without corruption or exploitation is more difficult. In high-governance nations like Australia and Canada, the challenge is less about compliance and more about maintaining flexibility, innovation and fairness in the face of rising reporting and regulatory expectations. Systems thinking is critical. Poorly designed ESG interventions risk shifting land use, displacing industries or undermining food security.

For Australian agriculture, the key take-home is this: ESG is not a fad or a niche concern. It is a structural shift in how global markets evaluate risk, reward sustainability and build resilience. Although currently, ESG is lumpy and uncertain, over the longer term, most of Australia's markets are signalling the integration of ESG requirements, reflecting a sustained shift in global market expectations.

Our competitors, especially Canada and Brazil, are actively positioning themselves to lead in this space through credible, internationally recognised, locally relevant, coordinated frameworks.

To ignore these signals is to risk exclusion from future markets, misalignment with global capital flows, and falling behind competitors. But to engage with them strategically is to potentially unlock new value. ESG can serve as a lens for innovation, a tool for de-risking supply chains, and a framework for ensuring Australian agriculture thrives in a changing world.

There are clear opportunities for farm businesses: ESG provides a framework to manage risk, build brand trust, meet investor and regulatory expectations, and secure long-term access to markets and capital by demonstrating responsible, resilient and future-focused business practices.

The market and political signals around ESG expectations are there and to be successful in future, businesses must consider these changes thoughtfully. Australia is well positioned to not only to meet rising expectations, but to shape and lead them globally.

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Foreword

Growing up on a farm has given me a lifelong passion for ensuring the agriculture industry is prosperous, supported, sustainable and practical. Over the last 20 years, I have worked across the industry: on farm and cattle stations, in consulting, executive roles, international markets, advocacy, policy work and international government board roles. I'm passionate about systems thinking to identify gaps, capture opportunities and leverage value for the agricultural sector. I do this through learning about global trends, connecting dots and identifying skills and experience in people, bringing them together to deliver innovative, proactive solutions for industry.

My experience in the live-export industry and on the WA Animal Welfare Act Review panel highlighted how post-farm gate policy decisions made without farmers, can have significant impacts on farm businesses, communities and supply chains. Decisions are often made without adequate consideration of how things will be practically or financially implemented. This can lead to policy making which, while addressing a narrowly focussed outcome in the short term, fails to address long-term, adaptive, and systemic challenges such as financial viability, trade and market access, community vibrancy or climate variability.

When examining global Environment, Social, and Governance (ESG) policies, I found myself questioning how decisions are made post-farm gate. I came to understand that often decisions and demands are made by a need to satisfy shareholders or voters with very little understanding of the practical implications of the changes or the economic ramifications of their demands. This prompted me to explore future expectations in ESG frameworks to help the Australian farming sector respond effectively. By understanding these dynamics, the sector can:

1. Proactively adapt on-farm practices to align with emerging standards or;
2. Explore and secure alternative markets if needed and;
3. Advocate strategically to influence policy and public opinion before issues arise and;
4. Inform the research community to develop solutions that ensure long-term farmer success.

This approach aims to position Australian agriculture as a leader in sustainability and resilience in an evolving global landscape.

Countries I travelled for my research are Brazil, the US, Canada, Japan, South Korea, The Netherlands, Tanzania, Zimbabwe, Belgium, Georgia, Switzerland, Norway and the UK. Each of these countries taught me different things, mostly the ESG landscape is complex, agenda driven, competitive, individualistic, opportunistic and riddled with risk, hope and opportunity.

Acknowledgements

Thank you to Nuffield Australia and my sponsor, AgriFutures, for the opportunity to participate in such an incredible scholarship and growth experience, it has been nothing short of life changing. From opening doors for critical conversations, to the depth and breadth of learning across countries, industries and cultures, the impact has been profound. I return with renewed confidence and clarity in my ability to contribute meaningfully to both Australian and global agriculture. This journey has not only expanded my perspective but also sharpened my purpose.

Naming all those who I crossed paths with during this experience would take pages. However, a few individuals went above and beyond, opening doors, offering their homes, sharing their wisdom and networks, challenging my thinking, inspiring me to keep being curious when I was tired and generously acting as sounding boards. I am deeply grateful to

- Fritz Bolten - Nuffield Scholar, Kununurra Farmer
- Phil Weller - Nuffield Scholar, farmer, Zimbabwe host
- Brenda Schoepp - Nuffield Scholar, connector, speaker, leader and strategist
- Ria De Grassi - Twitter friend and connector extraordinaire
- David Foote - Mentor, board director and agribusiness leader
- Charlie Arnot - Mentor, Founder of the Center for Food Integrity in the USA
- Professor David Hughes - Dr Food, Imperial College of London
- Su McCluskey - Mentor, Ex Special Representative for Australian Agriculture
- Gabrielle Chan - Journalist and author
- Tom Parnell - Ex Australian Agriculture Counsellor based in Japan.
- Jack Holden – Director, Ridge Road advisor, sustainability expert

Their belief in me, encouragement to apply, and unwavering support throughout this journey have been an invaluable asset. Without their time, knowledge, experience, insights and generosity, this report would be nowhere near as well considered or impactful. I hope I have done their input and time justice in the following words.

I also want to acknowledge my fellow Global Focus Program (GFP) cohort in order (back) Carlos Bagrie, Martin Chavez, Hans Riensche, Stephanie Tabone, The winery owner, Anna Cotton, myself, Natalie Schlitz, (front) Claudia Benn, Alex Marcel Melotto and Laura Bennett for challenging, supporting, laughing, sharing and crying with me while enabling me to grow into the next phase of myself, and inspiring me to contribute to agriculture globally in a more well-rounded, well-considered way.

Figure 1. GFP 5 in Georgia (Source: Author)

Abbreviations

AASB	Australian Accounting Standards Board
ACCR	Australasian Centre for Corporate Responsibility
ACCU	Australian Carbon Credit Unit
BNG	Biodiversity Net Gain
BPS	Basic Payment Scheme
CAP	Common Agriculture Policy
CBAM	Carbon Border Adjustment Mechanism
CSSB	Canadian Sustainability Standards Board
CSDS	Canadian Sustainability Disclosure Standard
CTS	Carbon Trading Scheme
DEFRA	Department of Environment, Food & Rural Affairs
E	Environment/al
ESG	Environmental, Social and Governance
ETS	Emissions Trading Scheme
EU	The European Union
EUDR	European Union Deforestation Regulation
FTA	Free Trade Agreement
FTE	Full Time Equivalent
G	Governance
GFP	Global Focus Program
GHG	Green House Gas
HU	Habitat Units
IFRS	International Financial Reporting Standards
Mn/mn	Million
NFF	National Farmers Federation
NIAP	National Index for Agri-food Performance
RDC’s	Research and Development Corporations in Australia
S	Social
SFI	Sustainable Farming Incentive
SME	Small to Medium Enterprise/s
T	Trillion
UK	United Kingdom
UN	United Nations
USA	United States of America

WFP	World Food Program
WHS	Workplace Health and Safety

Objectives

The objective of my research was to better understand how international legislative and commercial policy was going to impact Australian farmers' capacity to operate their businesses profitably and sustainably into the future. My aim was to:

- Proactively inform farmers of global ESG trends/requirements in the market and along the supply chain enabling proactive change and value capture on farm.
- Understand what is driving the ESG agenda in our major trading nations and whether this will impact our farming practices in the near to medium future.
- Assess the role of food security in the ESG space and quantify the often competing demands of the E (environmental outcomes), the S (human outcomes such as enough food) or the G (governance and laws underpinning agribusinesses)
- Identify alternative markets if ESG mandates become challenging for Australian farmers to meet.

Introduction

The phrase ESG was first coined in a report called “Who Cares Wins - Connecting Financial Markets to a Changing World” released by the UN Global Compact in 2004. The report was focused on improving areas of human rights, working conditions, the environment, and anti-corruption through 10 main principles. This report focussed solely on the financial sector having enhanced ESG outcomes. With increased climate-related disasters, the ESG agenda is beginning to affect farming communities and businesses globally.

By June 2004, 1500 companies globally had committed to the following;

U.N. Global Compact Principles

Human Rights

Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights within their sphere of influence; and

Principle 2: make sure that they are not complicit in human rights abuses.

Labour

Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining

Principle 4: the elimination of all forms of forced and compulsory labour

Principle 5: the effective abolition of child labour; and

Principle 6: eliminate discrimination in respect of employment and occupation.

Environment

Principle 7: Businesses should support a precautionary approach to environmental challenges

Principle 8: undertake initiatives to promote greater environ- mental responsibility; and

Principle 9: encourage the development and diffusion of environmentally friendly technologies.

Anti-Corruption

Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.

Figure 1: UN Global Compact Principles. (Source: United Nations Global Compact, n. d.)

The ESG priorities have changed since 2004. In an agricultural context, ESG currently pertains to things such as:

Environmental – biodiversity, soil health, greenhouse gas emissions, carbon sequestration, water quality, water use efficiency and waste.

Social – food security, staff wages and conditions, community contribution, philanthropy, animal health and welfare, diversity and inclusion, health and safety practices, workplace culture.

Governance – risk management and compliance, financial management, transparency and data management, decision making, company structures, legal obligations.

The emphasis on each ESG pillar varies, based on a country's wealth and stage of development. Wealthier nations can afford to prioritise environmental concerns like GHG emissions reduction and reducing plastic use, while developing nations are still focussed on ensuring appropriate governance (anti-corruption), and improving social outcomes such as food security, water quality, health care and education. Put simply, ESG is closely tied with a moral hierarchy of needs.

All three pillars contribute to a balanced system. Although governance is often taken for granted in Australia, in many parts of the world its absence makes it significantly harder to contribute meaningfully to both environmental and social outcomes. It is a critical pillar that those in privileged systems often overlook. Governance will become increasingly important in businesses as ESG reporting, including the use of transparency and data, become more prominent.

To ensure ESG remains relevant, we need a systems thinking approach to ensure practical implementation and financial viability for farmers. There are many competing aspects of ESG which became evident during this scholarship.

- Short term solutions for longer term, complex challenges.
- Consumer demands vs practical realities
- Idealism vs profitability
- Food security vs environmental preservation
- Commercial standards vs political ideologies
- Practices vs outcomes measurement.

As a Professor from the University of South Korea said,

"ESG has two faces. The public face, where people want to be seen to invest in green companies and the reality which is often, they prioritise making money."

He neatly demonstrates the complexity of practice change with ESG and provides a salutary warning. Any mandates or market trends need to make sense practically and economically for long term change to be embedded.

Consumers or investors often make demands with little understanding of, or accountability for, achieving stated outcomes. Examples of often contradictory demands include.

- Consumers expect perfectly uniform, unblemished fruit and vegetables year-round, while simultaneously rejecting the use of synthetic chemicals or plastic packaging that help achieve this.
- Consumers call for net zero food production, without recognising the biogenic emissions inherent in producing food and the costs associated with carbon neutrality.
- There is growing pressure to reduce food miles and support local produce, yet the same consumers continue to prioritise convenience, year-round availability and low prices, often leading to imported goods.
- Calls to eliminate synthetic fertilisers and pesticides for environmental reasons often ignore the food security risks and price rises that result from yield declines.
- Investors favour climate-positive agriculture on paper but shy away from funding the early-stage innovations, infrastructure or R&D needed to make it viable at scale.

Understanding ESG drivers and opportunities

Politics

Elected officials are heavily influenced by public opinion. They serve with the support of their constituents. But the nature of modern politics means organised campaigns, more recently against farming practices can hold sway over voters, creating powerful social movements. Political cycles tend to prioritise short-term popularity over long-term strategic solutions, making sustainability-led practice change on farm unpredictable and inconsistent.

Politicians often champion ESG initiatives that create visible wins to secure re-election. This dynamic can lead to an overemphasis on “popular” issues, such as the end of live export, rather than the longer term, existential challenges like food security which is a very real challenge but not an easy sell to voters. The focus on re-election often means these short-term, narrowly focussed measures risk becoming unsustainable, ineffective and/or damaging to rural communities.

With the advent of social media, came the extrapolation and acceleration of influence without the need for truth. Politicians often make decisions based on what their constituents think they want, rather than what is best for the country and its people. This tendency may only increase as experts are cast aside as irrelevant because an influencer suggests something is true. The Center for Food Integrity in the United States is currently working on social research to better understand how we operate in a post-truth world. However, it is unlikely that any nation-state can govern information flow powered by global technology companies.

Shareholders and consumers

ESG momentum is largely driven by shareholders, investors and consumers in wealthier nations, where expectations for corporate responsibility are highest. Yet many of these stakeholders lack understanding of farming realities and bear little responsibility or cost for implementing the changes they demand. Like voters, they have power in deciding how companies operate within society, and from a commercial perspective can impact liquidity of these assets.

Agriculture is not unique in facing pressure from shareholders and external stakeholders. Traditionally, investors allocate capital to companies without knowledge of the operational realities behind those businesses. Similar trends are observed in banking, mining and telecommunications where investors make demands without technical knowledge of the field.

The rise in private equity firms is also interesting to note, and plays a role in the stop start, up, down nature of the emergence of ESG as an issue at the forefront of businesses. They have less stringent public reporting requirements than publicly listed companies, which is in part a reaction to public campaigns. A report in the Guardian traces a trend of private equity firms investing in large oil and gas firms as shareholders seek to shed higher polluting assets and the bigger banks increasingly regard them as risky investments. Thanks to limited disclosure rules, regulatory loopholes and complex corporate structures, some of the least ESG appropriate assets are now owned by relatively obscure investment outfits, the report says. (Gale, D the Guardian, 2024)

As published by the ACCR, April 2024, Woodside, for the first time had their Climate Transition Action and 2023 Progress Report rejected by 58.4% of their shareholders. The share price dropped from $32.50 in February 2024, and continued to drop to the time of

publishing this report in December 2024 to a price of $23.10 (www.marketindex.com.au, Dec 2024). This represented a 29% drop in share price in less than 12 months following this reporting.

Individual businesses

For farmers, ESG does not have to be about ticking boxes. It can be a powerful business tool. By reframing ESG* as *Enabling Smart Growth*, producers can focus on what matters most to their business, family, community and customers. It is about using practical, economically driven data to improve what you already do well.

Good data helps benchmark performance, spot risks early and guide better decisions. It will also become increasingly linked to market access and potentially price. Being clear about on-farm practices, business management and how you measure progress is becoming essential for staying viable.

Farmers may not be driving the ESG agenda, but they are central to it. Some are already delivering strong sustainability outcomes on farm, however, don't have the data capture mechanisms yet to tell that story. Examples are things like minimum-till farming, protection of biodiversity, or planting shelter belts. These are common practices on farm, however the outcomes from these practices are rarely captured. This is what needs to change.

Simplified and aligned with real goals, ESG principles can help grow farm businesses to be more sustainable and profitable for generations.

The ESG landscape for Australian farmers

Australia has recently signed into legislation the Mandatory Climate-Related Financial Disclosures, which sits in the Corporations Act 2001. This mechanism is being introduced in a phased approach, starting January 2025. Depending on the size of the business, this may not impact the farmer directly, but it will have indirect impacts, depending on who the farm supplies and their financial partners. Larger farms may need to provide data to meet their reporting requirements.

These disclosures align with international standards, such as those set by the International Sustainability Standards Board (ISSB), and are designed to provide transparency and comparability for investors and stakeholders. As this is phased in over the next few years, companies that meet at least two of the following criteria must report.

Table 1: Summary of phased introduction to mandatory climate-related financial disclosures. (Source: Treasury, n. d.)

First annual reporting periods starting on or after	Large entities and their controlled entities meeting at least two of three criteria:			National Greenhouse and Energy Reporting (NGER) Reporters	Asset Owners
	Consolidated revenue	EOFY consolidated gross assets	EOFY employees		
1 July 2024 Group 1	$500 million or more	$1 billion or more	500 or more	Above NGER publication threshold	N/A
1 July 2026 Group 2	$200 million or more	$500 million or more	250 or more	All other NGER reporters	$5 billion assets under management or more
1 July 2027 Group 3	$50 million or more	$25 million or more	100 or more	N/A	N/A

Additionally, Australia has a voluntary Carbon Trading Scheme (CTS), quantified in an Australian Carbon Credit Unit (ACCU), which is a mechanism for farmers to engage in formal and well-respected national carbon markets. There are several methodologies available to farmers with reviews every ten years. Currently these methodologies remain geared towards larger, corporate farms, who can afford to cover the costs of data capture and auditing, leaving SMEs with debt, fewer options to capitalise on this opportunity. Methodologies can be pitched to the Clean Energy Regulator for consideration and must have defendable, transparent data and prove additionality, not be business as usual. Currently, there is no methodology available for large parts of the northern beef industry.

The Australian Agricultural Sustainability Framework (AASF) is a voluntary program developed in collaboration with the business, government and not-for-profit sectors and is largely aligned to the Sustainable Development Goals (SDG's). It has no legislative powers and isn't aligned to any international framework governing metrics or accountability. In addition to the framework below in figure 2, there are industry specific sustainability frameworks that narrow the focus and enable more appropriate reporting for individual sectors. Sustainability frameworks exist currently for dairy, cotton, beef, sheep and wool, horticulture and a grains sustainability framework is under development.

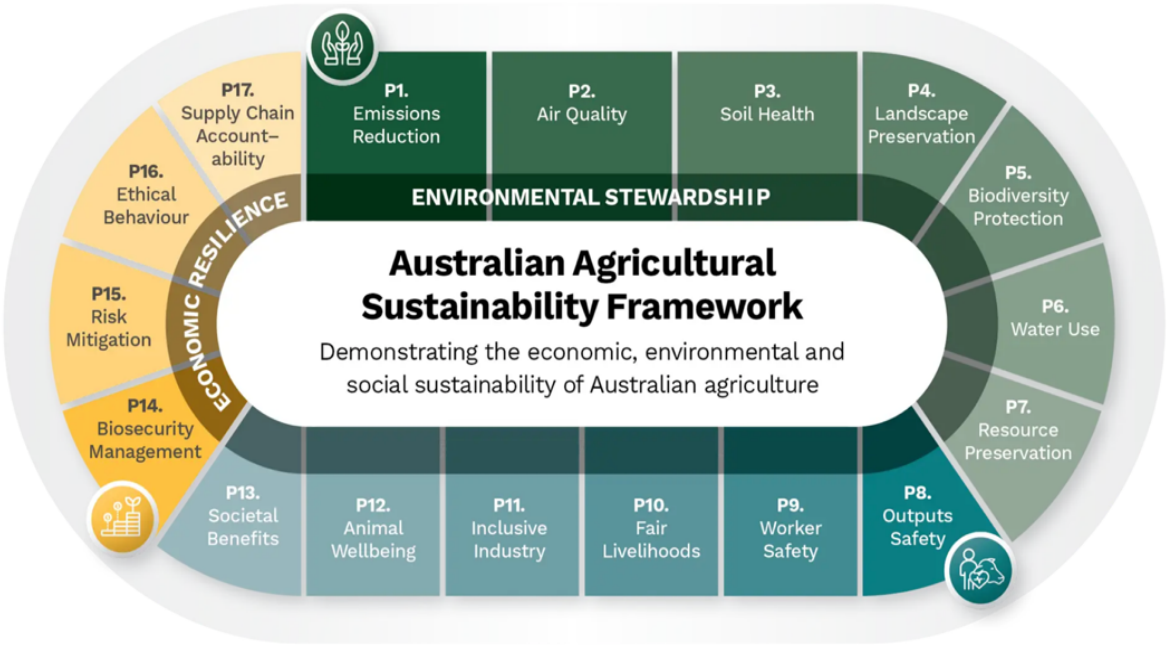

Figure 2 – The Australian Agricultural Sustainability Framework. (Source: AASF, n. d.)

Farmer influence across ESG pillars nationally

Farmers can influence ESG outcomes on their own properties but have limited control at the national level. They play a strong role in the E pillar as farmers directly influence outcomes such as soil health, biodiversity, water use efficiency, and water quality. Practices like rotational grazing, resting paddocks, planting shelter belts, and applying biological soil amendments or alternative pesticides are within their control and can deliver measurable environmental benefits.

The S pillar often receives less attention in Australian agriculture, partly due to the country's high standard of living. Key social issues like nutrition, hunger, and workers' rights largely fall

under government responsibility. However, farmers do have control over how they treat and pay their staff, animal welfare, and community engagement, all increasingly important to consumers.

The G pillar is two-fold. Farmers manage their own governance through business structures, risk and financial management, legal compliance, and anti-corruption practices. But they have limited influence over broader governance frameworks such as legislation, tax policy, environmental regulation, trade and market access. While governance is not currently a major concern within Australia, it is critical in regions with high corruption risk, such as parts of Africa.

For Australian farmers, governance will become more relevant as ESG reporting becomes increasingly standardised and subject to regulation.

Financial dividend for farmers

> *"ESG is not appealing to farmers, you can't sell ESG at the farm gate level, but you can sell productivity gain, and profitability is what is going to deliver practice change."*
>
> Richard Norton, CEO, Terragen.

There are clear opportunities for Australian farmers in ESG, but the most immediate and tangible benefits lie in productivity and efficiency gains on farm, not in meeting external supply chain demands. Practices such as improving soil health, planting trees for shelter, improving animal health and welfare and restoring natural capital can lift profitability and build resilience over time. While supply chains and banks are increasingly requiring data on things like carbon footprints, they are not currently paying farmers for the cost of collecting or reporting it. Although some banks have introduced green or sustainability-linked loans, these have so far delivered limited financial value for most producers in Australia.

By contrast, Brazil offers a more compelling example, where banks provide interest rate discounts of 1% for sustainable farming practices, demonstrating more of a partnership approach in business. This shows their belief in the lower risks of lending to businesses meeting sustainability and ESG aligned goals. For now, Australian farmers will be expected to supply more data as a market access requirement, but the real value of ESG remains grounded in what can be achieved on farm.

Australian farmers are increasingly exploring ways to monetise environmental sustainability through formalised regulated markets. But these largely remain inaccessible or impractical for family and SME farmers due to the lack of a suitable methodology or the cost of data capture. The ACCU scheme enables farmers to earn tradable carbon credits by implementing eligible emissions reduction or carbon sequestration practices, such as soil carbon enhancement and vegetation regeneration. Many farming experts counsel caution when trading carbon, preferring to inset rather than offset farm carbon. Insetting involves generating and retaining carbon credits within a business to meet sustainability goals, whereas offsetting involves selling those credits to a third party, compensating for their emissions.

Similarly, the Nature Repair Market, established by the Nature Repair Act 2023, provides a framework for farmers to generate and sell biodiversity certificates by undertaking projects that protect or enhance biodiversity. This market is notable for being the world's first legislated, national, voluntary biodiversity credit market, aiming to incentivise private

investment in nature restoration and preservation. This market remains in its infancy with biodiversity certificates varying significantly in value and remaining quite difficult to quantify.

There are few companies globally that will pay a dividend for adhering to ESG mandates. JBS Seara (part of JBS Group) in Brazil is paying a 5-10% bonus for farmers who adhere to their ESG mandates which include land management and animal welfare showing it is possible, however not common globally. The cotton BMP program is another example where farmers are paid a premium for their product, although farmers speak of this premium being wound back or eliminated in some circumstances.

It is becoming clear that the requirement for ESG reporting is increasingly becoming a ticket to doing business, as is already the case for commodities like EU canola. Pressure is also coming from the financial sector in Australia, with legislative requirements further along the value chain such as the Mandatory Climate Related Financial Disclosures.

An example of the complexity of ESG mandates in supply chains is as follows. A well-known, multi-national agribusiness is working with farmers in their supply chain to reduce their carbon emissions by financially supporting innovative farmers through practice change and monitoring outcomes. However, when questioned about paying a dividend to farmers reducing carbon emissions, they were not in a position to do so. When asked about preferentially buying from farmers who knew their carbon number and were reducing it, again, the need to fill supply chains in the short term overrode the longer term need to protect the environment and lower emissions. They have a goal, but the practical implementation of carbon related goals remains difficult.

Export realities and ESG trade-offs

> *"As an export nation, Australians' often talk about selling to a country. We can't sell commodities to countries; we sell to customers within countries and it's important we focus on finding customers who value the high-quality products we produce"*
>
> Jack Holden, Director Ridge Road Advisory

Australia exports about 70% of its agricultural production, and imports about 11% of its food consumption. (DAFF, 2019) The ESG agenda from an environmental perspective is largely driven by the EU, California and large multinational, publicly listed agrifood businesses who are accountable to shareholders. It is important we understand the international context as an exporting nation which remains at the whim of other countries mandates.

According to ABARES, from 2017 – 2022, on average we exported 84% of the sugar, 78% of beef, veal, mutton and lamb, 65% of Canola, 67% of wheat, 92% of our rice, 39% of our dairy products, 33% of our fruit and nuts, 6% of our pig and poultry and almost 100% of our wool.

Our main grain markets are China, Japan, Indonesia and Korea. For beef, it is the US, Japan and Korea. Lamb and mutton go to North America, China and the Middle East. Wool's main market is China, followed by Italy, and then India.

Global inconsistency with methodology and definitions

A key challenge in applying ESG metrics as a global trade instrument is the lack of consistency in models, metrics and methodologies, along with the diverse contexts in which

they are implemented, for example, developed vs developing countries. ESG frameworks vary significantly across countries, sectors, industries, soil types, climatic zones and regional governance structures. At the time of writing, despite there being a plethora of international standards, certifications and accreditations, there remains no consistent and agreed upon ESG framework to facilitate or enable trade or define success.

The uneven implementation of ESG is also shaped by the type of ownership and governance model of an organisation. Private equity firms, which do not answer to public shareholders and are less reliant on traditional bank financing, often face minimal scrutiny and are therefore less likely to embed change. By contrast, some publicly listed companies such as Coca-Cola, JP Morgan, and Air New Zealand have made bold ESG commitments and are increasingly softening their targets in response to legal and greenwashing risks, cost concerns and shifting political environments. As ESG evolves from aspiration to accountability, many actors are reassessing their strategies to balance ambition with credibility, creating a stop-start rhythm that reflects the growing pains of an emerging global system.

Food Security and the realities of trade

> *"When we talk about climate justice, it is the poor who suffer the most, we must bear this in mind as part of forming a global approach to ESG policy implementation."*
>
> Marcello Brito, FDC Dom Cabral Foundation

Given many of Australia's key trade partners face varying levels of food insecurity, the role of this within ESG frameworks deserves greater attention. Australia's trade relationships often highlight a tension between the ideal of long-term environmental sustainability (E) and the immediate need to support caloric needs of a population (S).

The hierarchy of needs ensures food security (S) is prioritised above environmental protection (E) for trading nations such as China and Indonesia. This is not to say they don't care, but to prioritise environmental protection over food security is a privilege they simply can't prioritise at this stage. While both are interconnected over the long term, in the short term, a country that cannot feed its population will naturally prioritise survival over broader environmental goals. This highlights the trade-offs between the E and S pillars of ESG and the need for a more well considered transition strategy for trade.

For Australia, while ESG is gaining momentum globally, mandating it without flexibility risks disconnecting us from markets that cannot yet afford to prioritise environmental outcomes. Many of our key trading partners face urgent food security challenges. ESG frameworks must therefore remain practical, flexible and contextual, ensuring environmental progress does not come at the expense of social outcomes for people.

We don't just trade with developing nations. Three of our major markets are developed nations, namely Japan, South Korea and the USA but their food needs are complex. For example, Japan isn't developing yet imports 66-70% of the calories required to feed their nation to survive. The USA on the other hand, depending on the season and competing trade relationships still imports food, particularly processing beef to provide their population with affordable burgers, a staple in the American diet. In the second Trump presidency, tariff impositions may lead to unpredictable and increasing food costs for the US consumer.

The balance of short and long term needs when balancing the long term future of people and the planet is a complex reality to navigate. On one hand, we know the urgency of addressing climate change and protecting environmental assets like forests. On the other, we must recognise that many nations simply cannot prioritise this while grappling with immediate food security challenges. This tension underscores the importance of a globally coordinated approach.

A more appropriate global approach to ESG frameworks would be one that acknowledges differing national capacities and ensures the costs of environmental protection are not unfairly passed onto those who are least able to afford them.

Challenges operationalising ESG across supply chains

There is an assumption that the world is moving to ever higher ESG goals. In fact, there has been a recent trend of large multinational companies winding back their commitments to ESG, some citing difficulty in quantifying or achieving goals, others citing associated costs. An example of this was in January 2025, when JP Morgan was the last major USA based bank to leave the Net Zero Banking Alliance. Although reasons for this are unknown, 6 of the banks left between Trump's second presidency being confirmed and his inauguration. (Jessop, S, Reuters, 2025)

Coca Cola has recently wound back their ESG goals including lowering their recycled-material target from 50% by 2030 to just 35–40% by 2035 and having 25% of their beverages in refillable or returnable packaging. They also removed its standalone target to source 100% of priority agricultural ingredients sustainably. Instead, they now indicate they "seek to continue initiatives to support sustainable sourcing" without a firm target. They referenced operational challenges to explain this recalibration.

Wool is another example: while ESG isn't widely discussed in Japan, Japanese milling houses supply garment manufacturers, who sell on to brands who prioritise animal welfare, like Country Road, Hermès, Uniqlo, and Levi. As a result, wool buyers in Japan favour wool from New Zealand and South Africa, where mulesing is banned. This removes the need for farm-level data to quantify non-mulesed wool and as a result, simplifies supply chain assurance. (Samuel Cockeday, AWI, Japan).

This is important to note as we export most of the wool produced and things such as mulesing are limiting our capacity to access global markets. It is easier to go to countries where there is no need for individual farm audits and data management.

Global ESG approaches: Lessons from key nations

Canada

Canada is the worlds 10th largest economy with a GDP of US$2.14T in 2023. Canada's largest trading partners are the US, China and the UK, so they compete with Australia in Chinese and the US markets.

While Canada is not a significant trading partner for Australian agriculture, examining its approaches provides valuable insights into strategies employed by competing nations. Australia competes directly with Canada for beef into the United States. In 2023, The US imported 375,177 tonnes from Canada (Canadian Beef, 2023) and 246,000 tonnes from

Australia (MLA, 2024). Understanding competitor actions is essential to maintaining and enhancing competitive advantages in global markets.

Canada is the country most aligned with Australia from a sustainability management perspective. While there is no binding federal mandate for net-zero agriculture in either country, Canada has committed to reducing agricultural emissions by 30% below 2020 levels by 2030 through its 2030 Emissions Reduction Plan. By contrast, in September 2022, the Australian Climate Change Act set an economy-wide target of a 43% reduction by 2030 from 2005 levels, and net zero by 2050, but no specific emissions reduction target for agriculture was set. It remains unclear whether the sector will be formally held accountable in either country.

On biodiversity, both countries are trialling approaches to ecosystem service markets and nature-based solutions. Canada is exploring how biodiversity metrics might be embedded into Environmental Farm Plans, while Australia has legislated the Nature Repair Market and supports initiatives like Accounting for Nature, which aims to create consistent metrics for ecological conditions. Together, these efforts reflect a growing shift in both countries toward integrated ESG frameworks that support farmers in contributing to national and global sustainability goals while maintaining commercial viability.

Canada is advancing a national approach to ESG in agriculture through initiatives that support transparency, global alignment, and on-farm implementation. Established in 2023 and aligned with the International Sustainability Standards Board (ISSB), the Canadian Sustainability Standards Board (CSSB) is developing a sustainability disclosure framework across sectors, including agriculture. It aims to standardise how emissions, climate risks and environmental outcomes are measured across supply chains. Though currently voluntary, these standards are expected to influence future regulatory and reporting requirements for agri-food businesses.

In parallel, the Canadian Agri-Food Sustainability Initiative (CASI) is helping operationalise sustainability by harmonising the many existing on-farm programs like the Environmental Farm Plans and commodity-specific initiatives like the Canadian Roundtable for Sustainable Beef. CASI does not create new standards; instead, it serves as a central hub to streamline data collection, reduce duplication, and improve farmers' ability to demonstrate sustainability credentials to markets and regulators. The Initiative supports farmers in improving environmental outcomes while maintaining profitability. CASI is widely regarded as the leading global model for integrating ESG into primary production in a practical and scalable way.

Another major driver of Canada's ESG leadership in agriculture is the National Index on Agri-Food Performance (NIAP). NIAP supports international competitiveness, informs policy, and provides consumers and investors with credible, whole-of-system insights. It's a voluntary, multi-stakeholder initiative that benchmarks Canada's food system sustainability across environmental, economic, social, and health dimensions. What makes NIAP globally unique

> *"The NIAP is designed to help understand if agriculture and food are sustainable. If we don't know, how do we enable trade, how can we speak to claims being made, build societal trust and inform policy. If the industry isn't doing it, the government will"*
>
> David McInnes, the Founder and key driver of NIAP

is its integrated inclusion of health, nutrition, food safety, and antimicrobial stewardship, areas often overlooked in traditional sustainability frameworks. By capturing such metrics, NIAP expands ESG beyond just environmental, economic and social focuses.

CASI, NIAP and CSSB each play distinct but complementary roles in advancing ESG in Canadian agriculture. CASI focuses on practical on-farm implementation by harmonising existing sustainability programs and helping farmers demonstrate their ESG credentials. NIAP provides a national-level performance benchmark, uniquely incorporating environmental, economic, social and health indicators, such as nutrition, food safety and worker wellbeing, to tell a whole-of-system sustainability story beyond the farm gate. CSSB sets the formal sustainability disclosure standards across all sectors, including agri-food, aligned with global frameworks like the ISSB.

Together, they create a connected pathway from on-farm outcomes (CASI) to national performance visibility (NIAP), to standardised reporting and accountability (CSSB).

Key lessons from Canada

- Canada is Australia's closest peer in sustainability governance, offering a more integrated approach for developing voluntary but structured ESG frameworks, supporting farmer participation without compromising productivity.
- Canada, like Australia, does not mandate emissions reductions for agriculture but has set a 30% target by 2030, signalling future policy directions which Australian farmers should monitor closely.
- Canada's approach to biodiversity and ecosystem service markets mirrors Australia's Nature Repair Market and Accounting for Nature, but places more emphasis on integrating biodiversity into existing programs like Environmental Farm Plans.
- Canada's three-tiered ESG strategy is world leading, CASI (on-farm implementation), NIAP (national benchmarking), and CSSB (standardised sustainability reporting) provides a clear, connected model for scaling ESG across agriculture, from the farm gate to global markets.
- Canada's NIAP uniquely incorporates metrics on health, nutrition, food safety, and antimicrobial stewardship, offering a more holistic approach to ESG. This broader scope may offer competitive differentiation and could be a lesson for Australia in preparing future market narratives.
- With both countries competing for key export markets like the US and China, understanding and aligning with Canada's ESG advancements is vital for Australia to remain competitive and credible in premium global supply chains.

The European Union (EU)

The EU, comprising 27 member states, is a significant global economic entity with a combined GDP estimated at USD $19.4 trillion in 2024, making it the world's second-largest economy. The EU is renowned for its stringent environmental regulations, advanced manufacturing sector, and influential role in setting global sustainability standards.

Established in 1962, the Common Agricultural Policy (CAP) was established largely in response to food shortages after World War II. Its primary goal was to ensure food security by supporting farm incomes, stabilising markets and encouraging farm businesses, recognising that a strong, stable farming sector was essential to Europe's long-term security.

In its current iteration (2023–2027), the CAP emphasises sustainability, aligning with the EU's Green Deal and the Farm to Fork (Vision for Agriculture and Food) Strategy. These initiatives aim to make the EU climate-neutral by 2050 and promote a fair, healthy and environmentally friendly food system.

The Farm to Fork Strategy aims to make the EU climate-neutral by 2050, with specific targets for agriculture, including having 25% of their land mass organic, a 50% reduction in pesticide and antimicrobial use and a 20% reduction in fertiliser use by 2030.

Under the recently reformed CAP, there has been a focus shift from production to environmentally friendly practices. These include crop diversification, maintaining permanent, biodiverse grasslands, and dedicating a portion of arable land to ecological focus areas which will likely cause a decrease in food production. The shift towards sustainability has introduced complexities, particularly for small-scale farmers, affecting profitability and potentially hindering innovation and succession planning.

Denmark has introduced a pioneering livestock emissions tax set to commence in 2030, aiming to be a carbon neutral country by 2045. The Taxation Minister Bruss said in June 2024, "We will take a big step closer in becoming climate neutral in 2045, we will be the first country in the world to introduce a real CO_2 tax on agriculture". Farmers will be taxed 300 Danish kroner (approximately $72.96 AUD) per tonne of CO_2 equivalent in 2030, increasing to 750 kroner ($180.48 AUD) by 2035. A basic deduction of 60% of emissions per cow will be applied to the average emissions/cow providing an economic advantage to climate-efficient farmers who will have to pay less tax.

After accounting for a 60% income tax deduction, the effective cost per T CO_2e will start at 120 kroner ($29.18 AUD) per tonne in 2030, rising to 300 kroner ($72.96 AUD) by 2035. The British Agriculture Bureau estimates that a Danish cow produces approximately 6TCO2e/year, which would mean this tax would cost farmers $175 AUD per cow initially, rising to $656.64 AUD annually, raising concerns about the financial burden on the agricultural sector (British Agriculture Bureau, 2024). New Zealand passed a similar law to Denmark in 2022, but the legislation was recently scrapped after backlash from the agricultural sector, and the government changed hands in 2023 (Euronews.com. 2024).

The Netherlands has implemented a voluntary buyout scheme targeting livestock farms near environmentally sensitive areas to reduce nitrogen emissions. Under this program, dairy farmers are offered up to 120% of their farm's value to cease operations permanently. Participants must agree not to resume farming elsewhere in the EU and commit to converting their land to non-agricultural use, often for nature conservation. This initiative has meant many dairy farmers are moving to Northern Ireland and has raised questions about the long-term impact on dairy food security, agricultural innovation and family farming in the Dutch dairy industry.

For Australia, the EU represents a relatively small but lucrative market, particularly for high-value agricultural products like canola used in biofuels. However, access to this market is contingent upon meeting stringent environmental and sustainability standards.

The proposed Carbon Border Adjustment Mechanism (CBAM) is a trade policy that places a carbon price on certain imported goods (cement, iron, steel, aluminium, fertilisers, electricity and hydrogen). It is designed to mirror its own Emissions Trading Scheme (ETS) to level the

playing field, ensuring importers pay a carbon tax equivalent to what EU producers pay. With price fluctuations of between €60 – €100/T CO_2e in recent years, there are real cost considerations for heavy industry. Although agriculture broadly doesn't currently fall under CBAM legislation, having fertiliser included signals a broader move towards incorporating carbon costs into trade, potentially impacting agricultural exports in the future.

The European Union Deforestation Regulation (EUDR) will apply to seven key commodities linked to deforestation: cattle, soy, palm oil, coffee, cocoa, rubber and wood, as well as their derived products. From 30 December 2025 (or 30 June 2026 for small businesses), products entering the EU must be proven deforestation-free from the 31st of December 2020. Countries will be rated as low (eg Norway), standard (eg Australia) or high risk (eg Brazil), which determines the due diligence required. This poses challenges for exporters, particularly Brazil's soy industry (soy is needed for the EU livestock sector) and Indonesia's palm oil industry. Although Indonesia doesn't sell directly into the EU, they sell palm oil into China for processing into cosmetics and this supply chain will be soon traced back. Australian exporters must also prepare, as access to this valuable market will depend on compliance. Precise geolocation data will be required for entry and will be audited using satellite technology.

Key lessons from the EU

- Australia has an opportunity to drive emissions reduction and environmental gains by investing in ag-tech, innovation and entrepreneurship, guided by locally tailored policies and realistic transition timelines, rather than replicating EU models.
- The EU continues to shape global ESG and trade standards, with sustainability now central to CAP reform, the Green Deal and Farm to Fork (Vision for Agriculture and Food) Strategy. Australian exporters must stay alert to shifting compliance requirements to maintain market access.
- There is a clear policy pivot from production to environmental protection, with mandates for organic farming, reduced pesticide and fertiliser use and ecological focus areas. This shift has reduced food production and added complexity, especially for smaller farms.
- Policies like Denmark's livestock emissions tax and the Netherlands' voluntary farm buyout scheme highlight how climate regulation can directly reshape agricultural business models, farm viability, and rural landscapes.
- Australian policy makers must monitor the consequences of such policies rather than blindly mirror them, particularly where they accelerate land use change or lead to unintended consequences such as food shortage or farmer displacement. This will prevent similar unintended consequences occurring.
- While agriculture is not yet captured under the EU's CBAM, the inclusion of other inputs such as fertiliser signals growing risk exposure for Australian agriculture if carbon costs are extended.
- The EUDR introduces stringent, traceable sustainability requirements for commodities including cattle, with risk ratings affecting due diligence levels. Australian exporters will need robust land-use records and geolocation data to access this market in future.

United Kingdom

Understanding the UK's ESG policies, while not essential for Australian farmers, serves as a valuable lead indicator. The UK imports approximately 40% of its food, ranks 6th in global GDP, and has a population of 68.4 million. In 2023, its major trading partners included the EU, the USA, and China for both imports and exports.

The recent UK-AUS Free Trade Agreement (FTA) presents opportunities for Australian agricultural exports. However, alignment with UK ESG requirements, such as carbon reduction, sustainable farming practices and data collection may be needed for market access in future. The ultimate outcome though, remains unclear as the UK government recognises the impact this would have on food price inflation.

The United Kingdom, comprising England, Northern Ireland, Wales, and Scotland, has undergone significant changes following its departure from the European Union (Brexit). Since my visit to England and the preparation of this report, a general election has resulted in a change of government. Consequently, some agricultural policies have been significantly restructured. Notably, recent changes to inheritance tax legislation have raised concerns about the long-term viability of family farms.

In the UK, there has been a shift from farming as the primary income source to leveraging farmland for diversified commercial ventures. For Example, Barnston Estate received 90% of their income coming from dairy in the 1990's. Today only 22% of the business income comes from dairy, even though in that time, their milk production has more than doubled to 15 million litres. Ed Barnston, Managing Director of Barnston Estate said "Supermarkets stubbornness has not seen the milk price rise in the last 30 years, not even in line with inflation and whilst we are a rural enterprise, we have actively diversified in order to reduce business risk (from just milk) and explored more financially rewarding markets."

Their commercial enterprises are now over 50% of their business, with varied interests from two pre-school nurseries all the way through to a natural burial ground (www.monumentmeadow.co.uk) on their land. This makes them one of the only estates to cater for a full life cycle from cradle to grave providing jobs and houses along that journey. Other interests are land development, renewable energy, increased woodland, also nature markets.

Following Brexit, the UK transitioned from the EU's Common Agricultural Policy (CAP), which provided payments for land ownership under the Basic Payment Scheme (BPS), to the Sustainable Farming Incentive (SFI). In 2021, the pilot SFI focused heavily on environmental sustainability, starting with 23 actions in SFI23. These actions were aimed at things like enhancing biodiversity through planting herbal leys and reducing chemical use.

By 2023, the UK experienced significant food shortages including tomatoes, cucumbers, capsicums and eggs leading to empty shelves and rationing in major supermarkets. From this, the government realised the inherent food security risk associated with uncapped environmental incentives and the effect on total food production. In some cases, farmers planted their whole farms to herbal leys which exposed vulnerabilities in the UK's food system and sparked public concern over domestic food security. As a result, herbal leys were capped to 25% of the farm to encourage re-establishment of food growing crops.

In response, the UK government revised the SFI in 2024, streamlining the scheme to 102 initiatives which included support for productivity enhancing practices such as precision farming, agroforestry and improved upland management, while still maintaining environmental goals. The update reflects a deliberate shift to balance ecological ambition with the need to strengthen local food production and security. The food shortages served as a wake-up call, reinforcing the importance of ensuring sustainability policies do not compromise national food resilience. For Australia, this provides a timely lesson in the risks

of over-prioritising environmental regulation without a parallel focus on domestic production capacity.

These UK policy changes have coincided with a sharp reduction in farm support. Since Brexit, while variable, the transition from CAP to SFI saw some UK farmers face a 50 percent drop in subsidies while compliance costs increased. While the old EU system was often criticised for inefficiency, it provided vital support for rural communities.

One farmer reported earning £45,000 under the CAP before Brexit, which had dropped to £25,000 by May 2024, with £10,000 lost to costs. Interestingly, horticulture was excluded from support under the new system, prompting many to exit the sector and shift into areas eligible for SFI payments. This highlights the importance of systems thinking in policy design, ensuring Australian frameworks recognise the complexity of farming and avoid unintended shifts in land use or industry viability.

Developers in the UK must deliver at least a 10% net gain in biodiversity compared to the baseline value of the habitat impacted or cleared by the development. Under the 30-year Biodiversity Net Gain (BNG) scheme, farmers can generate 2 to 6 habitat units (HUs) per hectare, depending on habitat quality and location. HU's are currently valued between £26,700 ($50,000 AUD) and £160,000 ($310,000 AUD), with higher prices attached to woodland and river habitats. Payment structures vary, some farmers receive lump sums up-front, while others negotiate staged payments with developers. Benchmarking can begin on bare paddocks, making it easier to demonstrate the required 10% biodiversity gain. Land use remains flexible throughout the 30-year term, with compliance audited only at the end, offering a potentially high-reward, low-intervention income stream for those who manage it well. The risk to the global biodiversity market is that the BNG program has integrity challenges from the outset (being able to baseline bare paddocks) and therefore may create a trust deficit for biodiversity markets globally.

In contrast, Australia's biodiversity credit schemes, such as those under the Nature Repair Market and Accounting for Nature, are voluntary and primarily focused on protecting existing biodiversity rather than creating it. They require ecological baselines, cannot typically start from bare paddocks, involve audits every five years, and are currently far less financially rewarding than the UK's Biodiversity Net Gain model.

Key lessons from the UK

- The UK provides a useful example of how ESG-focused agricultural policy can shift quickly in response to trade, political and environmental pressures.
- Programs like the SFI show the importance of balancing sustainability goals with food production to avoid issues like the UK's recent shortages of basic fresh foods.
- Market-driven biodiversity schemes like the UK's BNG can offer substantial income opportunities however pose risks to trust in biodiversity markets over the longer term without rigorous and appropriate auditing and outcomes.
- Australian biodiversity credits are voluntary, protection-focused and science-led, but currently offer less financial return and limited accessibility for farmers.
- Policy must be designed with a whole-of-system view to avoid unintended land use changes, as seen in the UK where horticulture declined due to subsidy exclusion.

Brazil

Classified as a developing nation with abundant environmental assets, Brazil stands out as a country with immense potential for the future of agriculture. Among the countries visited, Brazil's dynamic agricultural sector presents the most exciting opportunities, making it an exceptional case study and a valuable source of insights from an ESG perspective.

Brazil is a nation which combines extraordinary natural resources, an innovation and research ecosystem and a government that supports agriculture. As a result, they are the leading nation globally for the export of corn, soy, beef, coffee, sugar, and orange juice. Agribusiness accounts for 25-30% of Brazil's GDP, accounts for 33% of export earnings and employs 25% of their workforce. (Mairun Junqueira Alves Pinto, Harven Agribusiness School, CSC, Campo Grande)

On a global scale, Brazil has relatively low agricultural subsidies, estimated by the World Bank in 2017 to be 0.35% of their GDP, and as a result they are focussed sharply on innovation, breeding and research. Their main trading partners are China, the EU and the United States.

Brazil permits legal deforestation alongside its established environmental protection mechanisms, which brings it into conflict with the EUDR. In 2020, 89% of Brazil's soybeans were exported to China, while in 2023 Brazil supplied 53% of the EU's soybean requirements (Datamars News, 2023). This statistic highlights a trade imbalance, while the EU is heavily reliant on Brazilian soy to support its livestock sector, Brazil is far less dependent on the EU as a trading partner. In a personal meeting with Director-level staff at the European Commission in October 2023, a question was raised regarding how the EU planned to address potential livestock feed supply challenges. At the time, no mitigation strategy had been identified, suggesting the supply implications may have contributed to the decision to postpone aspects of the EUDR.

The current Brazilian government is focussed on production as well as environmental protection. The government is acutely aware of global trends and have put in place protection for biodiversity, not just in the Amazon but in all biospheres. They have policies and markets to encourage active reforestation in areas with techniques such as silviculture and ecotourism initiatives. These are being actively taken up by farmers as they make good business sense. This doesn't mean there are not companies still deforesting illegally, and when caught, they are put through a legal process.

30% of the total landmass of Brazil is protected, accounting for 260mn ha according to the UN. In contrast, 19% of Australia is protected, 17% of China is protected and 13% of the EU, which leads the charge of biodiversity preservation is protected. Meanwhile Russia and Canada sit at 10% protected each with Argentina having 9% of its landmass protected. (Clodus Menacho, Pantanal Post CSC Conference)

Brazil also has a highly attuned focus on animal welfare and the circular economy. JBS Seara, part of JBS Group, is looking to the EU for their standards and practices. By 2025, JBS Seara will have a supply chain completely free of sow stalls and caged eggs. In March 2024, they were sitting at 80.47% and 54% respectively. From a plastics perspective, they aim to have 70% of their packaging recyclable and 46% biodegradable by the end of 2025. (JBS Seara Presentation, CSC Brazil)

Interestingly, and not widely known, 45% of Brazil's energy is renewable and reliable. The Brazilian government recognises a strong stance on environmental protection is crucial for accessing markets in future, this enables them to leverage philanthropic and international

funding to help protect their biodiversity through environmental service payments. (Eduardo Reidel, Governor of Mato Grosso Du Sol)

Brazil is an agricultural and ecological powerhouse. When the world decides how to quantify natural capital in a globally consistent way, Brazil will be well positioned to capitalise on this. Compared to Australia, a much larger percentage of their GDP is derived from farming and agriculture and as such, their governments understanding of and support for their agricultural sector is inspirational. According to Trading Economics, Australia spent approximately 2.22% of GDP on agricultural research and Brazil spent 5.58% of GDP showing why Brazil's agricultural innovation ecosystem is delivering ahead of Australia's.

Key lessons from Brazil:

- Brazil demonstrates it is possible to be both a global agricultural leader and a strong environmental steward. Its model shows how production and conservation can be integrated through legislation and incentives that encourage biodiversity protection within farm boundaries.
- With 45 percent renewable energy and 30 percent of its landmass protected, Brazil is well positioned to benefit from future global frameworks on natural capital accounting. This reinforces the need for Australia to prepare for a similar transition.

- Legal deforestation in Brazil is often misrepresented. The country protects significant portions of land within farms by law, contributing to its global leadership in conservation. This highlights the importance of nuanced global narratives around land use.
- With minimal agricultural subsidies, Brazil has built competitiveness through investment in research, innovation and breeding. This underscores the value of market-led productivity and the importance of strategic public investment in agri-science.
- Brazil's trade relationships highlight the power of leverage. Its dominance in global soy exports shows how overdependence can shape policy, as potentially demonstrated by the EU's delayed implementation of deforestation regulation.
- Brazil's proactive approach to animal welfare, packaging and circular economy practices shows how aligning with global standards opens market access and positions its industry as ESG-ready.
- The Brazilian government recognises biodiversity as an asset, using environmental credentials to attract trade, investment and international funding.

The USA (note visit was prior the 2nd Trump Presidency)

While the US is the dominant military, political and financial global power, the country still has domestic challenges at home. In 2021, 11.6% of Americans lived at or below the poverty line (USA Facts, 2023). The surprisingly high percentage of people living in poverty in the USA, (amongst other complexities like expensive regulations, lack of faith and understanding of climate science), give an insight into reticence from the Federal governments (past and current) in doing anything that will increase food prices.

The USA agrifood system contributes 5.5% of GDP with farm gate sales contributing 0.8% of this. Their major trading nations for exports are China (US$33.7bn), Mexico (US$28.2bn) and Canada (US$27.9bn). Australia imported US$4bn in 2022 which was 10% of Australia's total food and ag related imports.

Although Australia is a relatively small market for the USA, our beef industry is heavily reliant on this market accounting for 27.5% of total exports in 2024. (AuctionsPlus, 2024)

Similarly to Australia, the United States operates under a complex constitutional system in which both state and federal laws coexist, often leading to conflicts between the two. While the federal government is not focused on ESG outcomes, significant ESG progress is being driven at the state level, particularly in California. This matters because California's global influence is substantial. If it were a country, it would rank as the fourth largest economy in the world.

One of the mechanisms for legislative change at the state level in the US is the Proposition Ballot system. This allows a group of citizens to propose a law or amendment. They put out a petition and once it receives the required number of signatures (5% of the total votes cast at the last election), a question can be placed on the ballot for public vote. Meaning, when voters go to the polls, alongside choosing candidates like the Governor, they can vote 'yes' or 'no' on such propositions.

An example occurred in 2018 with Proposition 12, which introduced new minimum space requirements for egg-laying hens, breeding pigs, and calves raised for veal, significantly increasing cost of production for farmers. This didn't impact Californian farmers, as these are not large industries there, however it significantly impacted farmers in Iowa, North Carolina, Illinois, Minnesota and Missouri as they then had to comply with border restrictions meeting local laws.

The Ballot system is a startlingly simple way to enact change. This mechanism can fundamentally change an industry and speaks to the need for proactive advocacy at all levels around realities of farming systems and the importance of them. Organisations like the Center for Food Integrity in the US do this very well. From an Australian perspective, it highlights the need to be aware of what our customers are wanting, both in Australia and internationally, as we rely heavily on them for trade.

A note about the 2nd Trump Presidency.

The return of President Donald Trump in 2025 has introduced significant uncertainty for Australian agriculture, particularly due to new blanket tariffs, including a 10% (at the time of publication, these are subject to rapid change) import tariff directly affecting Australian beef, our largest agricultural export to the U.S. These protectionist policies risk reducing market access, undermining competitiveness and exposing Australian farmers to price volatility. Despite the tariffs, Australian beef exports to the USA have remained strong, suggesting short-term demand resilience. However, this shifting landscape highlights the urgent need for Australia to diversify its agricultural export markets and build more resilient, trusted trade partnerships to safeguard against geopolitical and policy-driven disruptions.

Key lessons from the USA.

- The U.S. is not prioritising ESG policy at the Federal level, but states and multinational companies operating within the country continue to set and pursue ambitious environmental goals, depending on their clientele.
- Australia's beef industry is heavily exposed to the U.S. market, which accounted for 27.5% of total beef exports in 2024. Tariffs introduced under President Trump pose a risk, reinforcing the need to diversify export markets.
- Individual states like California are driving change through powerful mechanisms like the Proposition Ballot system. These laws can reshape national supply chains and influence global standards.

- The ballot system allows laws to be passed with minimal public scrutiny, which can disproportionately affect out-of-state producers. This highlights the need for proactive advocacy and industry-led education to inform policy outside our national boundary.
- Overall, Australia must remain vigilant about shifts in U.S. policy, engage actively in global ESG conversations, and continue strengthening relationships with diverse, stable trade partners to reduce exposure to political disruption.

Japan and South Korea

Japan has a population of approximately 124.5 million people and ranks as the fourth-largest economy globally, following the United States, China, and Germany. In 2022. Japan's major trading partners are China, the USA, Australia, Canada, Brazil, Thailand, and Taiwan. The country relies heavily on imports for many agricultural raw materials, including grains, oilseeds, and livestock products, due to limited arable land and a declining rural workforce. While Japan has a highly developed food processing sector, it is largely geared towards meeting high domestic standards and consumer preferences.

South Korea has a population of approximately 51.7 million people and ranks as the 12th-largest economy globally with a nominal GDP of US$1.87 trillion in 2024. Its economy is heavily export-oriented, with major trading partners including China, the United States, and Japan. In the agricultural sector, South Korea is a significant importer of raw materials, relying on countries like the United States, China, and Australia for commodities such as beef, corn, and soybeans.

Both Japan and South Korea are highly developed, densely populated nations with a strong dependence on imported raw materials. However, their approaches to food processing and export differ significantly. South Korea has strategically built a thriving export industry around processed foods, capitalising on global demand for Korean cuisine. Japan, by contrast, focuses more on meeting domestic demand with high standards and innovation, exporting a smaller share of its processed goods, primarily premium or branded products.

Japan and South Korea face several similar challenges in their agricultural sector, an aging population and limited interest among younger generations in pursuing agriculture as a career. This is exacerbated by restrictive practices, such as in Japan, requiring unanimous agreement from neighbouring farmers to sell farmland. Additionally, profitability in farming remains low, further deterring young people.

A key concern for both Japan and South Korea is their low level of food self-sufficiency. Currently, 66-70% of the calories consumed in Japan and 70% in South Korea come from imported sources. The only crop produced in sufficient quantities domestically in both nations is rice, which is heavily subsidised.

An example of a government strategy in Japan is the Midori Strategy, a plan to achieve a sustainable food system. This strategy aligns broadly with the European Union's Farm-to-Fork Strategy, sharing similar goals such as a 30% reduction in chemical fertilisers, a 50% reduction in pesticide use, and an increase in organic farmland to 25%. However, Japan's target year for achieving these goals is 2050, providing a longer lead time compared to the EU's targets.

The Japanese government is very aware of the risk of increasing food prices and to address concerns about consumer affordability for sustainably produced local food, the Japanese government intends to launch a marketing campaign aimed at encouraging the public to pay higher prices for domestic, sustainable produce. While the Japanese population are highly

compliant to government mandates, this approach raises questions about the need for a secondary strategy, particularly given Japan's heavy reliance on imports for the purposes of feeding their population.

While Japan's government appears committed to sustainability and ESG principles, the perspective from the commercial sector offers a contrasting narrative. Representatives from the wine, wool, beef, horticulture, and retail industries emphasise Japan's significant food insecurity and dependency on imports. Their primary focus remains on ensuring access to safe, healthy, and affordable food rather than imposing trade barriers linked to environmental or animal welfare concerns.

This divergence between policy aspirations and commercial realities highlights the complexities both Japan and South Korea face in balancing sustainability goals with economic and food security imperatives. The outcomes of these conflicting priorities are what is fundamentally shaping the implementation of ESG strategies globally.

Key lessons from Japan and South Korea

- Both South Korea and Japan have a highly sophisticated manufacturing food industry, turning raw materials into exported or domestically consumed high value products.
- Ageing rural populations and declining youth engagement in farming are common across most developed nations.
- Japan's Midori Strategy sets long-term targets, recognising the need for practical, more well considered timelines.
- ESG is growing in influence, but food security, affordability and safety remain dominant. ESG practices must be commercially viable and integrated with market expectations.

Conclusion

Global markets are shifting, and while ESG remains inconsistently applied and poorly defined in some areas, it is becoming a key influence on how food and fibre are grown, traded and valued. International retailers, investors and regulators are increasingly embedding ESG expectations into procurement, financing and reporting, although this will take some time to be fully embedded and mandated. In many ways, ESG is a proxy for risk and resilience, particularly in sectors like agriculture that are exposed to climate volatility, social scrutiny and supply chain disruption. The organisations that will thrive in future are those that can demonstrate measurable improvement on ESG aligned outcomes, whilst maintaining profitability.

ESG is not a new idea, but the pressure to prove performance is growing. With the right approach, ESG can serve as a tool to enable smart growth, attract new revenue, reduce risk and build market confidence. However, if poorly understood or externally imposed, it can become a burden that further complicates an already complex production system for farmers.

This report has examined ESG through a global lens, unpacking the diverse ways it is shaping agricultural sectors across markets and jurisdictions. From the UK's sweeping regulatory shifts, to Brazil's production-focused yet biodiversity-rich model and Canada's emphasis on harmonised frameworks, it is clear ESG is influencing both the pace and direction of agricultural change. While ESG is becoming increasingly embedded in procurement and investment decisions, it is important to recognise that outside the European Union, few nations have formalised ESG into binding legislation for agriculture. This report has also shown ESG commitments can be reversed, if companies and/or governments do not see value in making change.

These fractured demands present both a risk and an opportunity for Australian farmers. If producers do not demonstrate credible, measurable improvements in environmental, social and governance outcomes, they risk having policy imposed upon them which may not reflect or recognise the value of Australian farming systems. The signals from trading partners, retailers, financiers and consumers are clear: ESG-aligned agriculture will no longer optional in future, it will over time become a prerequisite. But the real power lies in shaping what that looks like in individual business contexts.

To stay ahead, Australian agriculture must proactively communicate progress, influence the policy narrative and pursue opportunities to co-design practical, market-aligned ESG initiatives. Government and commercial supply chain players are critical partners in this journey, and it is through collaboration, not compliance, that the most effective and enduring outcomes will be achieved. The farming sector is already achieving significant progress, yet enhanced visibility and strategic positioning are essential to maintain and grow markets, attract ongoing investment, and secure long-term resilience.

Recommendations

For Farmers:

> *"If you think you might need the data, collect it as you won't regret having too much data, but you may regret not having enough on things that matter further down the track"*
>
> Chris Gooderham from AHDB

Reframe ESG as a Business Tool: View ESG frameworks as a practical means to enhance decision-making, profitability and efficiency rather than an external compliance burden. Focus on outcomes that matter to your family, business, and future.

- Outside making a profit, things to consider are;
- Family circumstances
- Passions and interests of family members and staff
- Local environment and climate mitigation/management measures
- Education and capacity
- Local community engagement
- Begin or enhance collection of key baseline data (emissions, soil health, biodiversity) aligned with recognised methodologies that are accepted by the Clean Energy Regulator for the purposes of Australian Carbon Credit Units (ACCUs). This will strengthen business resilience, risk management, and future-proof market access.

Know your bank's preferences: Organise a meeting with your financial institution or other investors to understand needs both now, and into the future:

- Required sector specific ESG metrics, which may include GHG emissions, water usage, soil health, biodiversity conservation efforts, animal health and welfare metrics.
- Loan facilities and interest rate provisions available to you for meeting data requirements.
- Models, methodologies and certification schemes they accept.
- Data platforms and any support to help you gather data.
- Free training to help you manage this new requirement.

Understand current and future markets: Know the customer and what the current and future ESG related needs are, this will help prepare for market changes or non-tariff trade barriers that arise. This report identifies key drivers of international market access, supporting farmers to align their products with the most suitable market, whether commodity or high value, in line with individual, family, or business objectives.

Use your voice: Farmers must be actively involved in industry, government, and supply chain ESG discussions, otherwise, decisions will continue to be shaped by those who may have little understanding of farming, resulting in impractical and unprofitable requirements. This engagement shouldn't be limited to political conversations; it also means connecting with customers like Woolworths or PepsiCo. Farm Trade Australia, a farmer owned organisation is an example where they are working to create direct connections between farmers and supply chain stakeholders to build transparent, practical, profitable and enduring value chains.

Agtech and innovation need to be useful: Technology has created increasing opportunities to enhance production efficiency, sustainability outcomes, and profitability. Ask yourself, does this tech solve a real need in my business, improve profitability or make operations easier and more effective?

Innovations such as the rise of biologicals in both developed and developing nations are an example. Some 23% of crop protection in the US is now made up of biostimulants (Hugh Bromley, Presentation CSC). This shift is being led by large crop protection companies including Corteva, Bayer, Syngenta, FMC and others. Australian companies such as SwarmFarm Robotics demonstrate how technology can improve efficiency, reduce fuel and chemical use, and address both environmental and profitability challenges, delivering cost savings while enhancing environmental outcomes

Develop Partnerships - Farmers have a significant opportunity to enhance both profitability and resilience by forming strategic partnerships along the value chain. These collaborations allow farmers to do what they do best, grow food and manage land, while leveraging the commercial partner's expertise in R&D, market access and value chain coordination. A partner can offer agronomic support, co-invest in innovation, and connect farmers with potentially premium markets that appreciate and reward sustainability or provenance.

The power of such partnerships lies in mutual value creation. An example is General Mills have partnered with oat and wheat growers in the US to implement US recognised regenerative practices such as cover cropping and minimum till. They, provide technical support and long-term contracts benefiting both soil health and business outcomes. Another example is Woolworths supporting farmers, helping them understand their carbon footprint, including offering tools and resources to calculate on-farm emissions.

For Policy Makers/Politicians

Acknowledge complexity and plan around longer time frames: ESG presents an adaptive, long-term challenge that cannot be resolved within a single election cycle. It requires realistic, phased approaches over time, avoiding lofty commitments that are ultimately unachievable due to practical, technical, or financial constraints within the supply chain.

Avoid blanket regulation: ESG approaches in agriculture must be tailored to local contexts. Rigid or hastily implemented policies risk unintended consequences, including land use distortion and increased food insecurity.

Enable, don't impose: Develop frameworks in genuine partnership with farmers and value chain participants. Encourage voluntary participation by ensuring systems are easy to use, rewarding and measure outcomes, rather than prescribing specific practices.

Support measurement and verification: Invest in nationally consistent metrics, such as emissions factors for common agricultural products, to streamline reporting and reduce the burden on producers. For example, standardised emissions data per tonne of wheat or beef

Recognise early movers: Recognise and reward farmers who are already delivering strong environmental and social outcomes. Their experience offers valuable insights that should be leveraged and shared more widely to inform scalable, practical models for broader industry adoption.

Align domestic and trade policy: It is essential that Australian ESG frameworks are interoperable with those of key export markets, following the example set by countries like Canada. Aligning standards in this way will help safeguard Australia's global competitiveness and ensure smooth market access as international sustainability requirements evolve.

Invest in rural capacity: The success of ESG initiatives ultimately depends on people. Strengthening extension services, leadership development, and targeted training, particularly in regional and rural communities is essential to build the capability, confidence, and capacity needed to drive meaningful and lasting change.

For Commercial Supply Chain Players

Acknowledge complexity and plan around longer time frames: ESG presents an adaptive, long-term challenge that cannot be solved within a single shareholder or election cycle. It requires realistic, phased approaches that account for practical, technical, and financial constraints. Avoiding overly ambitious targets that are unlikely to be met and engage with farmers to ensure understanding of practical realities on farm.

Financially reward farmers delivering ESG aligned outcomes: Incorporate ESG expectations directly into procurement frameworks and financially reward suppliers who deliver measurable outcomes. Set clear, consistent standards to drive alignment and support performance-based rewards across the value chain.

Support on-farm transition: Enable farmers to meet sustainability goals by co-investing in research and development, pilot initiatives, digital tools, and targeted training. Practical support on the ground is essential for translating ESG ambition into achievable outcomes along a value chain.

Simplify and align frameworks: Work with farmers to streamline ESG initiatives, reducing duplication and confusion. A more coherent landscape builds trust and participation while enabling consistent reporting and comparability across supply chains.

Use your influence wisely: As gatekeepers to consumers and capital, commercial entities have a critical role in ensuring farmers understand what is being asked of them and why. Additionally, to inform consumers of practical realties and complexity of single issue activism. Transparency and communication are essential to avoid a disconnect between farmers and consumers and the unintended consequences that emerge from this.

Invest in traceability: Modern traceability technologies that automate, integrate and verify ESG outcomes from paddock to plate are key to maintaining consumer confidence and securing continued market access. Supporting adoption of these tools will be vital for future competitiveness.

Celebrate success: Share real-world case studies of ESG-aligned supply chains that demonstrate both profitability and positive environmental or social outcomes. These examples help build credibility in Australian agriculture, inspire adoption, and reinforce the value of doing things differently.

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