

# FOOD POLICIES AND SUSTAINABILITY: EUROPEAN LESSONS FOR TRANSFORMING AUSTRALIA'S FOOD SYSTEMS

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*The European Union's "Food 2030" and "Vision for Agriculture and Food" provide invaluable lessons for Australia in transitioning toward sustainable, inclusive and resilient food systems. These initiatives align with the European Green Deal, Farm to Fork Strategy and Bioeconomy Strategy, addressing critical issues such as malnutrition, obesity, alternative proteins, food traceability and sustainability. The Vision outlines an ambitious roadmap for a competitive and future-oriented agricultural sector, focusing on digital-ready farming, generational renewal, climate action and fair living conditions for rural communities. This also helps understand the challenges and find possible solutions for the social determinants of health and health equity. The EU also established the European Board for Agriculture and Food to bridge the disconnect between these two areas.*

*By contrast, Australia lacks a cohesive national food policy. Existing efforts, such as the National Preventive Health Strategy 2021–2030 and the National Obesity Strategy 2022–2032, address health concerns but remain fragmented and lack transformative impact. The 150 current food-related policies of all Federal, State and Territory governments we researched (twenty-four food policies and sixty-two policy actions) identified across Australian Government departments reflect an incremental and uncoordinated approach.*

*This analysis underscores the importance of developing a unified food policy and a coordinating body for Australia. By adopting strategies inspired by the EU's framework, Australia can advance sustainable food systems, promoting health, environmental preservation and economic resilience. This presentation explores the EU's approach and offers actionable recommendations for Australia to achieve meaningful food system transformation.*

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## **Introduction**

Food policies play a crucial role in shaping sustainable food systems, ensuring food security, environmental protection and economic resilience. The European Union (EU) has developed comprehensive frameworks such as Food 2030 (EC, n.d. a) and the Vision for Agriculture and Food (EC, n.d. b; Politico, 2025), which provide valuable insights for Australia. These policies align with the European Green Deal (EC, 2024), Farm to Fork Strategy (EC, n.d. c), and Bioeconomy Strategy (EC, 2024), offering a holistic approach to food sustainability. Australia, on the other hand, lacks a

cohesive national food policy (Farr and Nelson, 2024). While initiatives such as the National Preventive Health Strategy 2021–2030 (DHDA, 2021) and the National Obesity Strategy 2022–2032 (DHDA, 2022) address health concerns, they remain fragmented and fail to drive systemic change in the food and agriculture sector. This article examines European food policies and explores how Australia can adopt similar strategies to transform its food systems.

We examined how Australian food-related policies from the agriculture, food processing and manufacturing, and food marketing sectors do or do not take account of the health and environmental impacts of food systems. Although we recognise that such policies also have economic and social goals, our main interest is in alignment and trade-offs between health, social, economic and environmental goals and strategies. Hence, we analysed the health, health equity and environmental commitments of over 150 current food-related policies outside of the health sector which were drawn from the websites of all Australian Federal, State (New South Wales, Queensland, South Australia, Tasmania, Victoria and Western Australia) and Territory (Australian Capital Territory and Northern Territory) governments. Given the disconnect between the activities related to how food is produced to reach consumers and the sustainability of these sectors, this article looks for insights from European governance as lessons for transforming Australia's food systems. We start with briefly summarising the European landscape and then move to describing the challenges of the Australian food policies using verbatim quotes from various strategic documents. This is followed by a brief comparison between the EC and Australia before we draw suggestions for building a cohesive, sustainability-oriented future-focused food policy for Australia.

### **European Food Policies: A Model for Sustainability**

When it comes to food, sustainability has been high on the EU's policy agenda. The EU's policies emphasise sustainability in its food policies as well as associate them with the Sustainable Development Goals (SDGs) supporting a global transition to sustainable agri-food systems (KCGFNS, n.d.). Major aspects of this transition are improved nutrition and alleviation of food insecurity by building resilient food systems and reducing food loss and waste (KCGFNS, n.d.). Many areas of cooperation where countries can share knowledge and risk as well as bring innovation are highlighted. They include among others research, particularly in response to the needs for climate change adaptation and mitigation, environmentally better practices, such as agroforestry, sustainable use of the land, inclusive value chains which allow for nutritional and healthy diets, resilience and responding to risks, particularly in fragile environments, plant and animal health and welfare as well as harmonisation of food standards and evading antimicrobial resistance (KCGFNS, n.d.). Across all policies agriculture, food and health are closely interlinked with sustainability and below are a few examples.

#### *Food 2030 and Vision for Agriculture and Food*

Launched in 2023, the EU's Food 2030 framework (EC, n.d. a) is a research and innovation strategy which focuses on nutrition, food traceability, climate-smart food systems, alternative proteins and food from the ocean and freshwater resources. It aims to reduce malnutrition and obesity, promote sustainable diets and enhance food authenticity and safety. To achieve this, it links sectors from primary production to food processing, retail, distribution and marketing, packaging, waste and recycling, food services and consumption. It also emphasises inclusivity and the need for climate resilience, including more plant-based food system (Food 2030, n.d.). Its strategies follow a global

outlook and outline co-benefits in nutrition, climate, circularity and communities (Directorate-General for Research and Innovation, 2023).

Another overarching policy is EU's Vision for Agriculture and Food (EC, n.d. b; Politico, 2025) launched in 2025 which outlines a roadmap for competitive and future-oriented agriculture with digital-ready farming, generational renewal and climate action, and recognises the role of farmers in creating a future-proof food sector. Similar to Food 2030, the Vision safeguards fair living conditions for rural communities and supports sustainable food production. It was informed by the European Board for Agriculture and Food (EBAF, 2025) established to bridge the disconnect between these two areas. Part of the EBAF's mandate is maintaining "a new culture of dialogue, trust and multi-stakeholder participation, among the actors of the food supply chain and civil society" to ensure coherence and synergy of all government policies in consistency with private sector initiatives (EBAF, 2025, para. 3).

#### *Farm to Fork Strategy and Bioeconomy Strategy*

The two overarching policy frameworks build on previous EU policies aimed at making food systems more sustainable. Initiated in 2020, the Farm to Fork Strategy (n.d.) is central to the European Green Deal, aiming to make food systems fair, healthy and environmentally friendly. It promotes sustainable agriculture, biodiversity conservation and food security. Sustainability is at the core of the Farm to Fork Strategy with the transition to more sustainable food systems that a nature-positive or nature-neutral, including mitigating and adapting to climate change, restoring biodiversity, ensuring just food security, nutrition and safety (Farm to Fork Strategy, n.d.). Economic considerations, such as food affordability and economic returns, are one aspect of this strategy that should be synergistically addressed with the other priorities.

The EU's Bioeconomy Strategy has had several iterations after its original launch in 2016 and is currently in preparation of its latest version due late 2025 (Directorate-General for Environment, 2025). It integrates circular economy principles, reducing food waste and promoting resource efficiency.

All of the above strategies provide a comprehensive framework for sustainable food systems across the complexities of the European Union. They indicate a coordinated focused approach which brings sustainability at the forefront and brings together all aspects of the food systems.

#### **Challenges in Australia's Food Policies**

Compared to the EU, Australia's food policies are less coordinated and not explicitly linked to sustainability. We identified several challenges for bringing sustainability into focus in the current Federal and State/Territory governments approaches.

#### *Fragmentation and lack of coordination*

Australia's food policies are dispersed across multiple government levels (Farr and Nelson, 2024). The 150 food-related policies identified across Federal, State and Territory governments reflect an incremental and uncoordinated approach, limiting policy effectiveness. These policies exist but often lack depth and uniformity across jurisdictions, undermining any collective impact. We did not examine local government policies, but this level of governance is responsible for major aspects of the food system, such as food waste and opportunities for urban agriculture. If local government is added to the picture, the fragmentation and lack of coordination becomes even more prominent.

Our analysis of the 150 policies reveals that rather than constituting a strategic, integrated system, they primarily represent siloed efforts by individual government departments. This fragmentation diminishes the potential for coherent action and reduces the policies' transformative impact. A closer examination of federal government policies, particularly those under the Department of Agriculture, Fisheries and Forestry (DAFF) and the Department of Climate Change, Energy, the Environment and Water (DCCEEW), reveals several recurring themes, including economic and environmental concerns, and to a lesser extent, societal, technological, health and justice issues.

Another major flaw of the Australian policies, is that there is no provision for collaboration between Australian states and territories. For example, even State government departments with similar mandates, such as related to agriculture, do not promote any collaborative efforts in research and innovation. The Federal Department of Agriculture, Fisheries and Forestry's primary role is to facilitate exports and manage biosecurity risks (Directory, 2025).

### *Health and nutrition concerns*

The National Preventive Health Strategy 2021–2030 and the National Obesity Strategy 2022–2032 aim to improve public health outcomes in Australia but lack integration with broader food sustainability goals. Addressing malnutrition, obesity and food insecurity requires a comprehensive national framework that connects public health with environmental and economic dimensions of food policy. However, health-related concerns are often referenced in vague, non-committal terms, with a lack of strategic depth in aligning public health with food system transformation. While these strategies emphasise preventive health measures, they do not sufficiently address environmental and economic dimensions of food policy that are crucial for long-term food sustainability (DHDA, 2021, 2022).

Despite the clear links between nutrition, chronic disease and the nature of food environments, policy efforts remain fragmented, with limited policy emphasis on transforming the food system to make healthy diets more accessible and affordable. This weak framing mirrors a broader pattern seen in environmental and sustainability goals across food-related policies. Research highlights that diet-related chronic diseases – obesity, cardiovascular disease and diabetes, are directly influenced by food system structures. When health concerns are addressed, they tend to be narrowly scoped. Australian policies tend to focus on individual behaviour change rather than systemic interventions (Mozaffarian et al., 2018). This approach mirrors a broader pattern seen in environmental and sustainability policies, where soft language and diluted accountability hinder meaningful reform (Menon and Olney, 2024).

Health and nutrition concerns, when addressed in Australian policies, are frequently disconnected from structural food system transformation. The marginalisation of public health goals in food policy limits the government's ability to effectively tackle rising rates of obesity, diet-related disease and food insecurity. Clear and effective government policies are urgently needed to mitigate environmental harms, promote equitable health outcomes and ensure long-term food system resilience. Without a unified, coherent food policy, Australia risks failing its international sustainability commitments and compromising its national food security.

A more comprehensive national framework is needed to connect public health with food system sustainability, ensuring that nutrition policies align with climate action, food security and economic resilience. Countries that have successfully integrated nutrition and sustainability, such as those following the EU's Farm to Fork Strategy, demonstrate the benefits of holistic food governance

(Ruben et al., 2021; UN, n.d.). Australia could adopt similar models to strengthen food system resilience, improve access to nutritious foods and reduce diet-related health disparities.

### *Environmental concerns and the productivist paradigm*

Environmental concerns such as climate change, soil degradation, water scarcity and pest threats are prominently acknowledged and increasingly recognised as critical for Australia's food system. The sector contributes approximately 14.2% of the nation's total annual emissions, with agriculture alone accounting for over 60% of water use for human activities and occupying around 55% of the country's land (Forbes et al, 2021). Methane emissions, particularly from cattle, remain a major contributor to climate pollution, with over half of Australia's methane emissions in 2022–23 originating from enteric fermentation in livestock (Pelle, 2025). Agriculture was responsible for over half of Australia's methane emissions, with nearly 65% arising from enteric fermentation in livestock (Kelliher et al., 2024). These figures highlight the urgent need for sustainable agricultural practices, yet policy responses often frame sustainability as a means to economic growth rather than an intrinsic goal. Below is an example from the Australian National Aquaculture Strategy:

“...wild-caught production worldwide has largely plateaued. This suggests that wild-catch fisheries are reaching their ecologically and/or economically sustainable potential and any substantial growth in seafood production will have to be driven by growth in aquaculture.”

National Aquaculture Strategy, 2017, DAWE, 2017

The above statement reflects the limits of traditional fishing practices, suggesting that wild-catch fisheries have reached their maximum sustainable yield. Consequently, the emphasis on aquaculture growth as the next phase of seafood production underscores the shift toward controlled, farmed environments to meet rising demand for fish. However, aquaculture itself presents environmental risks, including water pollution, habitat destruction and reliance on fishmeal, which can further strain marine ecosystems (Candy et al., 2019). Furthermore, the national DAFF plans continue to emphasise productivity and export markets. They are in fact referred to as corporate plans:

“Increasing the contribution agriculture, fisheries and forestry make to a healthy, sustainable and low-emissions environment will be critical to maintaining and growing export markets and helping industry achieve its \$100 billion market value target by 2030.”

DAFF Corporate Plan 2023–2024

“Our purpose recognises that to continue growing the agricultural, fisheries and forestry industries, we must do so in a sustainable way...”

DAFF Corporate Plan 2023–2024

These examples illustrate how sustainability is often framed as a tool for economic expansion rather than an end goal. While the DAFF Corporate Plan acknowledges the importance of low-emissions agriculture, the primary focus remains on market growth and industry profitability (Candy et al., 2019). Such an approach risks prioritising short-term economic gains over long-term environmental resilience, potentially leading to policy trade-offs that favour production efficiency at the expense of ecological integrity. In many cases, environmental goals are not treated as central priorities, but rather as strategic enablers of market growth, thus reinforcing the productivist paradigm.

Ultimately, while Australia's food policies recognise environmental challenges, they frequently instrumentalise sustainability as a means to economic success rather than a fundamental commitment to ecological preservation. A more holistic approach, one that balances economic

viability with genuine environmental stewardship, is necessary to ensure long-term food security and climate resilience.

Furthermore, many environmental goals are weakly framed, which leads to equally weak solutions. For instance, policy statements such as: “Prioritise soil health” in DAFF’s National Soil Strategy (DAFF, 2021) or “...minimise [fishing operations]’ impact on the structure, productivity, function and biological diversity of the ecosystem” (DEWR, 2007) lack the urgency and clarity needed to drive systemic change. In contrast, more strongly framed objectives, such as: “A fishery must be conducted in a manner that does not lead to over-fishing” (DEWR 2007) or “Prevent the establishment of new pest animals” in Australian Pest Animal Strategy 2017–2027 (DAWR, 2017), link environmental outcomes to potential system-wide economic consequences, thereby garnering greater policy traction.

This inconsistency in framing reveals a deeper challenge: policy language often lacks specificity, assertiveness and enforceability when environmental issues are not directly tied to economic losses. As a result, the capacity of these policies to address long-term sustainability challenges is diminished.

Although climate change is frequently acknowledged as a threat to the national food system, policy narratives predominantly emphasise adaptation over mitigation. This framing implies that climate impacts are inevitable, shifting the focus toward resilience and preparedness rather than addressing root causes or initiating structural reform. For example:

“We also know that the changing climate is likely to mean more frequent, longer lasting, and intense droughts... This is why the Future Drought Fund is so important.”

Future Drought Fund Annual Report 2021–22, DAFF, 2021

“We know further changes to the climate are inevitable... Adaptation is a critical part of our response to climate change.”

National Climate Resilience and Adaptation Strategy, DAWE, 2021a

This pivot away from mitigation is striking given the food system’s documented contribution to national greenhouse gas emissions. The absence of mitigation as a core policy objective, suggests limited political will to address systemic drivers of environmental degradation. This weak framing of issues inevitably leads to weak framing of solutions, which undermines the transformative capacity of policy.

Language used in policy documents further reveals the hierarchy of concern around how the Australian government prioritises certain food system issues. Urgent and assertive language is used in domains such as fisheries and biosecurity, areas under strict regulatory framework. For instance, these are described as being “at an all-time high” or “essential”, warranting “a strong stance”. In contrast, challenges like climate change, food insecurity, drought, plastic waste and soil degradation are framed in softer, often promotional tones, frequently accompanied by positive attributes that diffuse the seriousness of their harms. For example:

“Plastic has been a revolutionary material... Plastic consumption has grown dramatically... our plastic production is expected to double in the next 20 years.”

National Plastics Plan 2021, DAWE, 2021b

This narrative is followed by a brief acknowledgment:

“Australia has a plastics problem... Around 130,000 tonnes of the plastic we consume leaks into the environment each year... 99% of seabirds worldwide will have ingested plastic.”

National Plastics Plan 2021, DAWE, 2021b

Occasionally, environmental harms issues are framed as public relations challenges rather than ecological or health concerns. The National Aquaculture Strategy, for instance, does not directly address the industry's environmental harms but rather suggests that consumers are misinformed:

“The perception of aquaculture as harmful is a communications issue rather than a factual one.”

National Aquaculture Strategy 2017, DAWE, 2017

Such language distances the policy discourse from ecological realities and suggests a tendency to downplay or reframe environmental concerns to protect industry image. Furthermore, the majority of policy documents avoid identifying specific agents responsible for food system problems. There is avoidance of clear attribution where responsibility is dispersed through vague statements, such as: “everyone has a role to play”. While this inclusiveness appears empowering, it obscures accountability, making it difficult to enact enforceable, effective solutions.

#### *Corporate determinants of health and economic priorities in Australian food policy*

This diffuse attribution of responsibility for environmental (often also health) concerns resonates with the concept of corporate (or commercial) determinants of health. Commercial determinants of health describe private sector activities that affect people's health, directly or indirectly, be it in a positive or negative way (WHO, 2023). These activities affect everyone and although there is a significant role for government to play, industry actors, often implicated in creating problems, are simultaneously framed as key drivers of solutions.

Despite these significant environmental implications, Australia lacks a coherent policy response equivalent to the EU's integrative approach. Instead, food policies largely operate under a productivist paradigm or goals, where environmental stewardship and outcomes are positioned to serve economic advantages and growth. This approach is evident in several government policy documents.

Economic and environmental concerns are the most frequently addressed issues, dominating the policy narratives. Economic challenges include rising costs throughout the food system (e.g., fuel, freight, interest rates and inflation), labour shortages, illegal foreign fishing, increasing geopolitical instability and trade uncertainties and complexity, international competition, evolving trade agreements, biosecurity threats and risks from international travel, and the growing burden of system-wide costs.

Environmental pressures such as droughts, pest incursions and soil degradation are often acknowledged, but framed in ways that support economic growth or are subordinated to it. Technological and societal challenges are acknowledged, including uneven digital infrastructure, lack of food system data and the ongoing impacts of colonisation on Australia's first peoples. However, none of these are integrated into a systems-based, national food strategy, and are instead either framed as economic priorities or left to the private sector to respond.

#### *Other issues of concern*

Societal, technological and health issues also emerge across the policy analysis, although less consistently. Examples of societal concerns include focussing on community expectations regarding natural resource management, shifting social licenses for farming and fishing, and the ongoing impacts of colonialism on First Nations communities.

Technological challenges include the risk of disruption and limited digital infrastructure. Notably, the Digital Foundations in Agriculture Strategy highlights that “digital technologies are foundational to the next major wave of agricultural productivity”, yet the implementation of digital tools remains uneven (DAWE, 2022). A lack of reliable data on food system issues also hinders effective planning.

Health-related concerns are referenced only sporadically and often in vague terms, signalling a lack of depth in integrating public health with food and environmental policy. There is lack of acknowledgement about the importance of the link of agriculture and food with health. In the Australian government structures, they belong to different silos with very limited interactions.

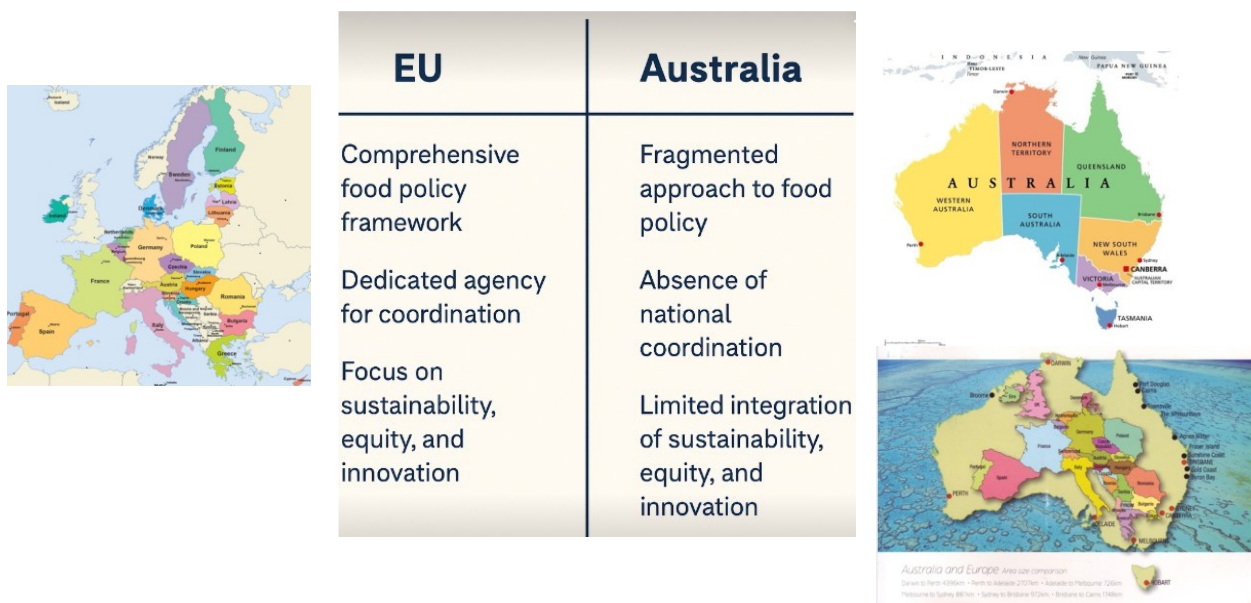
Several government policies do acknowledge that these pressures – economic, environmental, societal, technological and health-related – are interrelated and tend to accumulate. This recognition marks a critical first step toward adopting an integrated, systems-based policy approach. Nevertheless, the absence of a unified national food policy continues to hinder coordinated and effective responses.

Clear and effective government policies are urgently needed to mitigate these environmental impacts, preserve ecosystems and fulfil international obligations regarding climate change, biodiversity and overfishing. Actions are also needed in relation to the corporate determinants of health and the digital divide. Shifting the dominant productivist approach to sustainability requires a unified food policy. Without this, Australia risks falling short of its commitments and weakening its long-term food security.

### Food policy comparison

Figure 1 summarises the main characteristics of food policies in Australia and EU. Although population numbers differ with Australia (27 million) being much smaller than the EU (448 million), there are clear comparisons that can be drawn in terms of land mass.

## Food policies comparison



**Figure 1. Comparison between the food policies in the European Union and Australia**

In Australia 55% of the land mass, or 426 million hectares, is used for agriculture (DAFF, 2025) which is more than the total land mass of the EU, namely 423 million hectares. As food has been traditionally dependent on land use, it is important to critically understand and challenge Australia's food policies and search for ways that provide more sustainable ways of producing food as well as contribute to long-term global sustainability.

### **Building a cohesive, future-focused food policy for Australia**

Australia must move beyond fragmented efforts and develop a cohesive, future-focused food policy that integrates health, sustainability and economic resilience. Inspired by the EU's integrated model, Australia can adopt a national framework that aligns food, health, climate and economic strategies to ensure long-term food security and sustainability.

#### *Establishing a unified food policy*

While initiatives such as the National Preventive Health Strategy and National Obesity Strategy address public health concerns, their impact remains limited and uncoordinated. These policies operate outside the scope of broader food-related policies across agriculture, manufacturing, retail, marketing and consumer sectors (Parliament of Australia, n.d.). A National Sustainability Food Policy would unify food, health, climate and economic strategies under one cohesive framework, guiding all levels of government toward sustainable food systems (Ribeiro de Melo et al., 2024).

#### *Create a federal coordinating authority*

Australia's food governance is currently dispersed across multiple jurisdictions, leading to policy fragmentation (Australian Government, 2024). Establishing a central, independent body would unify food-related initiatives, ensuring coherent policy implementation and effective coordination between government agencies, industry stakeholders and local communities (Farr and Nelson, 2024). The European Board on Agriculture and Food can offer some insights as to what can be done in this area.

#### *Advance equity and food sovereignty*

Access to affordable, nutritious food remains a challenge, particularly for Indigenous, rural and underserved communities (Morelli, n.d.). Research highlights that food insecurity disproportionately affects First Nations' communities, where geographic isolation, economic barriers and limited access to fresh produce contribute to nutritional disparities. Strengthening food sovereignty would empower local producers, support culturally appropriate food systems and enhance community-driven food security initiatives (AFSA, 2022).

One approach to advancing food sovereignty is supporting Indigenous-led agricultural initiatives that prioritise traditional food knowledge, land stewardship and sustainable farming practices. Organisations, such as the Australian Food Sovereignty Alliance (AFSA), advocate for decolonising food systems and ensuring First Nations' communities have control over their food production and distribution (AFSA, 2022). Additionally, food co-operatives are emerging as a viable alternative to supermarket chains, allowing communities to access affordable, locally sourced food while reducing waste and environmental impact (Devdiscourse, 2025).

### *Foster innovation and local resilience*

Investing in local food systems, circular economy practices and agri-tech solutions can boost sustainability and economic diversity (Wynn and Jarrett, 2023). Reshaping Australian food systems through innovation and resilience-building strategies will ensure long-term food security while addressing climate and environmental challenges (Carrad et al., 2023).

Circular food systems emphasise resource efficiency, waste reduction and regenerative agriculture. Research highlights that localised food systems contribute to reducing greenhouse gas emissions, improving organic recycling and enhancing community food security (Centre for Agriculture and the Bioeconomy, 2021). The University of Wollongong (2025)'s research on circular economy-aligned supply chains demonstrates how regional food networks can scale up to meet growing demand for affordable, safe and nutritious food.

Australia's agri-food sector is increasingly adopting circular economy principles, integrating composting, food waste reduction and sustainable packaging into supply chains. Initiatives, such as the Digital Circular Food Economy Prototype (Centre for Agriculture and the Bioeconomy, 2021), explore how digital tools can optimise food waste management and enhance local food production.

Technological advancements in agri-tech play a crucial role in reshaping Australian food systems. The Food Systems Roadmap developed by the Commonwealth Scientific and Industrial Research Organisation (CSIRO, 2023a) outlines strategies for enhancing agricultural productivity, improving climate adaptation and fostering sustainable food innovation. Emerging technologies, such as precision agriculture, AI-driven crop monitoring and smart irrigation systems, are helping farmers optimise resource use and mitigate climate risks (Imagine Collective, 2024).

### *Commit to sustainable production and consumption*

Embedding environmental goals into every stage of the food system, from farm to fork to waste, is essential for long-term health, climate and biodiversity benefits (Statista, 2025). It is a critical imperative for ensuring planetary and human health. This systems-wide integration is essential to achieve long-term climate resilience, biodiversity preservation and public health protection (McClure, 2023). Sustainable consumption practices, including reducing food waste and promoting ethical sourcing, will strengthen Australia's commitment to responsible food production (CSIRO, 2021).

Australia's food policies tend to focus heavily on production-side efficiencies, while underemphasising consumption dynamics and post-consumption impacts such as waste and resource recovery (Food Environment Dashboard, n.d.). However, food system sustainability is inherently circular, environmental degradation and public health harms cannot be effectively mitigated unless both production and consumption patterns are addressed in tandem (Farr and Nelson, 2024).

At the production level, ecological intensification, growing more with less environmental harm, must replace extractive models of agricultural productivity (McIntyre, 2020). This involves prioritising agroecological practices, diversifying crops, protecting soil health and reducing dependency on fossil-fuel-based fertilisers and pesticides (Hochman et al, 2013).

Notably, livestock emissions are a critical concern: methane from cattle accounts for nearly 65% of the agricultural sector's methane emissions (Climate Council, 2024). Without regulating and transforming animal agriculture, Australia's emission reduction targets are unlikely to be met. On the consumption side, dietary patterns exert enormous influence on sustainability outcomes. High consumption of ultra-processed foods, red meat and imported goods not only contributes to negative

health outcomes but also amplifies greenhouse gas emissions, biodiversity loss and water stress (Climate Council, 2024). Promoting plant-forward diets, supporting local food economies and implementing mandatory environmental labelling could empower consumers to make more informed, sustainable choices (NSW Government, 2023).

Further, post-consumption stages, particularly food waste, represent a significant opportunity for improvement. According to the Commonwealth Scientific and Industrial Research Organisation (CSIRO), Australia wastes approximately 7.6 million tonnes of food annually, with more than 70% of this being edible (CSIRO, 2023b). Addressing food waste must go beyond consumer awareness campaigns; it requires structural reforms, such as reconfiguring supply chains, incentivising food redistribution, investing in composting and anaerobic digestion infrastructure and enforcing corporate accountability for waste generation.

In addition to environmental considerations, sustainable food systems must be grounded in social justice. Ethical sourcing of food products, ensuring fair labour conditions, equitable market access for smallholders and respecting Indigenous land rights, must be codified within Australia's trade, procurement and regulatory policies (Australian Food and Grocery Council, n.d.). Current food strategies often fail to account for these dimensions, treating ethical concerns as peripheral rather than structural (Intertek SAI Global, 2025).

Australia's current approach is largely incremental, favouring voluntary commitments and pilot programs over bold regulatory shifts (Farr and Nelson, 2024). While initiatives like the National Food Waste Strategy and industry-led sustainability targets exist, they are often underfunded, lack enforcement mechanisms and operate in isolation from broader health and environmental frameworks (FIAL, n.d.).

#### *Adopting EU-inspired strategies*

Australia can learn from the EU's Food 2030 and Farm to Fork Strategy, which emphasise nutrition, food traceability and climate-smart food systems. These frameworks align with the European Green Deal, aiming to make food systems fair, healthy and environmentally friendly (EC, n.d. c). By adopting similar strategies, Australia can strengthen food security, improve sustainability and enhance agricultural resilience. Implementing digital-ready farming and sustainable agriculture will enhance food security and environmental sustainability.

One of the key lessons from the Farm to Fork Strategy is the integration of environmental goals into food production and consumption. The EU's approach focuses on reducing greenhouse gas emissions, reversing biodiversity loss and ensuring food affordability (EC, n.d. c). Australia, which faces climate-related agricultural challenges, can benefit from implementing policies that promote regenerative farming, reduce food waste and enhance supply chain transparency. Additionally, digital-ready farming, a concept central to the EU's Food 2030 framework, can help Australian farmers optimise resource use, improve crop yields and mitigate climate risks (EC, n.d. a).

Australia's agriculture sector is already undergoing a digital transformation with initiatives such as the Digital Foundations for Agriculture Strategy promoting data-driven farming, precision agriculture and connectivity improvements (DAWE, 2022). However, further investment in smart irrigation systems, AI-powered crop monitoring and sustainable land management is needed to align with EU-inspired climate-smart food systems. By integrating digital agriculture with sustainability goals, Australia can boost productivity while reducing environmental impact.

Ultimately, adopting EU-inspired strategies will allow Australia to develop a more resilient, sustainable and health-focused food system. Policies that prioritise food traceability, climate adaptation and ethical sourcing will enhance consumer trust and position Australia as a leader in sustainable food governance. By learning from the EU's holistic approach, Australia can transition toward a future-ready sustainable food system that balances economic growth with environmental responsibility.

### *Strengthening food governance*

It is unrealistic for the current governance system which has not properly responded to the social and corporate determinants of health to deliver what the future needs. A multi-sectoral governance model engaging government, industry, academia and civil society is essential to driving systemic change. Policies should prioritise not only sustainable production and alternative proteins, but also equity, rural well-being and environmental regeneration. It is essential for the governance to have a holistic perspective on Australia's food systems and their importance for human and planetary health.

By adopting such strategic actions, Australia can transition toward a more sustainable, health-focused and equitable food system, ensuring long-term resilience and prosperity. A unified food policy, backed by coordinated governance, innovation and integrating sustainability, will position Australia as a global leader in food system transformation.

### **Conclusion**

Australia's fragmented and environmentally costly food policy landscape hinders progress toward a sustainable food future and sustainable food system transformation. Drawing on the EU's comprehensive policy frameworks, Australia can create a unified approach and cohesive framework that promote and support health, environmental preservation and economic resilience. An integrated national food policy is not only necessary for systemic transformation, but is also vital for meeting global climate and sustainability goals. Coordinated action today will secure a more sustainable and equitable food system for generations to come. It will also strengthen Australia's contribution towards making the global food systems more sustainable.

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### **Conflict of interest**

The authors state no conflict of interest.

### **References**

- Australian Food and Grocery Council. (n.d.). Ethical sourcing. <https://afgc.org.au/sustainability/ethical-sourcing/>
- Australian Food Sovereignty Alliance (AFSA). (2022). First Peoples First. <https://afsa.org.au/>
- Australian Government. (2024). Food policies, <https://www.foodregulation.gov.au/about-the-system/policies>

- Candy, S., Turner, G., Larsen, K., Wingrove, K., Steenkamp, J., Friel, S., & Lawrence, M. (2019). Modelling the food availability and environmental impacts of a shift towards consumption of healthy dietary patterns in Australia. *Sustainability*, 11, 7124. <https://doi.org/10.3390/su11247124>
- Carrad, A., Aguirre-Bielschowsky, I., Rose, N., Charlton, K., & Reeve, B. (2023). Food system policy making and innovation at the local level: Exploring the response of Australian local governments to critical food systems issues. *Health Promotion Journal of Australia*, 34(2), 488-499. <https://doi.org/10.1002/hpja.626>
- Centre for Agriculture and the Bioeconomy. (2021). Digital Circular Food Economy Prototype. QUT. <https://research.qut.edu.au/cab/projects/digital-circular-food-economy-prototype/>
- Climate Council. (2024). Farming Down Under: Agriculture's role in Australia's climate pollution. <https://www.climatecouncil.org.au/resources/australia-agriculture-climate-change-emissions-methane/>
- Commonwealth Scientific and Industrial Research Organisation (CSIRO). (2021). Sustainable Consumption and Production. <https://www.csiro.au/en/research/environmental-impacts/sustainability/Sustainable-Consumption>
- Commonwealth Scientific and Industrial Research Organisation (CSIRO). (2023). Roadmap to reshape Australia's food systems. <https://www.csiro.au/en/news/all/articles/2023/june/food-systems-roadmap>
- Commonwealth Scientific and Industrial Research Organisation (CSIRO). (2023b). The challenge of ending food waste and food insecurity in Australia. <https://www.csiro.au/en/news/All/Articles/2023/November/food-waste-food-insecurity>
- Department of Agriculture, Water and the Environment (DAWE). (2017). National Aquaculture Strategy September 2017. <https://www.agriculture.gov.au/sites/default/files/sitecollectiondocuments/fisheries/aquaculture/national-aquaculture-strategy.pdf>
- Department of Agriculture, Water and the Environment (DAWE). (2021a). National Climate Resilience and Adaptation Strategy 2021 – 2025. <https://www.dcceew.gov.au/sites/default/files/documents/national-climate-resilience-and-adaptation-strategy.pdf>
- Department of Agriculture, Water and the Environment (DAWE). (2021b). National Plastics Plan 2021. <https://www.agriculture.gov.au/sites/default/files/documents/national-plastics-plan-2021.pdf>
- Department of Agriculture, Water and the Environment (DAWE). (2022). Digital foundations for agriculture strategy. <https://www.agriculture.gov.au/sites/default/files/documents/digital-foundations-agriculture-strategy.pdf>
- Department of Agriculture and Water Resources (DAWR). (2017). Australian Pest Animal Strategy 2017–2027. Invasive plants and animal committee. <https://www.agriculture.gov.au/sites/default/files/sitecollectiondocuments/pests-diseases-weeds/consultation/apas-final.pdf>
- Department of Agriculture, Fisheries and Forestry (DAFF). (2021). National Soil Strategy, <https://www.agriculture.gov.au/agriculture-land/farm-food-drought/natural-resources/soils>

- Department of Agriculture, Fisheries and Forestry (DAFF). (2022). Future Drought Fund Annual Report 2021–22. <https://www.agriculture.gov.au/sites/default/files/documents/dfd-annual-report-2021-22.pdf>
- Department of Agriculture, Fisheries and Forestry (DAFF). (2025). Snapshot of Australian Agriculture 2025. <https://www.agriculture.gov.au/abares/products/insights/snapshot-of-australian-agriculture>
- Department of the Environment and Water Resources (DEWR). (2007). Guidelines for the ecologically sustainable management of fisheries. <https://www.dcceew.gov.au/sites/default/files/documents/Guidelines%20for%20the%20ecologically%20sustainable%20management%20of%20fisheries.pdf>
- Department of Health, Disability and Aging (DHDA) (2021). National Preventive Health Strategy 2021–2030. <https://www.health.gov.au/resources/publications/national-preventive-health-strategy-2021-2030?language=en>
- Department of Health, Disability and Aging (DHDA) (2022). National Obesity Strategy 2022–2032. <https://www.health.gov.au/resources/publications/national-obesity-strategy-2022-2032?language=en>
- Devdiscourse. (2025). Food Co-ops: A Growing Solution to Grocery Woes in Australia. <https://www.devdiscourse.com/article/headlines/3379429-food-co-ops-a-growing-solution-to-grocery-woes-in-australia>
- Directorate-General for Environment. (2025). Commission launches public consultation on upcoming EU Bioeconomy Strategy. European Commission. [https://environment.ec.europa.eu/news/commission-launches-consultation-eu-bioeconomy-strategy-2025-03-31\\_en](https://environment.ec.europa.eu/news/commission-launches-consultation-eu-bioeconomy-strategy-2025-03-31_en)
- Directorate-General for Research and Innovation. (2023). New Report: Food 2030 Research and Innovation – Pathways for action 2.0. European Commission. [https://research-and-innovation.ec.europa.eu/news/all-research-and-innovation-news/new-report-food-2030-research-and-innovation-pathways-action-20-2023-12-04\\_en](https://research-and-innovation.ec.europa.eu/news/all-research-and-innovation-news/new-report-food-2030-research-and-innovation-pathways-action-20-2023-12-04_en)
- Directory (2025). Department of Agriculture, Fisheries and Forestry (DAFF). <https://www.directory.gov.au/portfolios/agriculture-fisheries-and-forestry/department-agriculture-fisheries-and-forestry>
- European Commission (EC). (n.d. a). Food 2030. [https://research-and-innovation.ec.europa.eu/research-area/environment/bioeconomy/food-systems/food-2030\\_en](https://research-and-innovation.ec.europa.eu/research-area/environment/bioeconomy/food-systems/food-2030_en)
- European Board for Agriculture and Food (EBAF). (2025). Agriculture and rural development. European Commission. [https://agriculture.ec.europa.eu/common-agricultural-policy/cap-overview/committees-and-expert-groups/ebaf\\_en](https://agriculture.ec.europa.eu/common-agricultural-policy/cap-overview/committees-and-expert-groups/ebaf_en)
- European Commission (EC). (n.d. b). Vision for agriculture. [https://agriculture.ec.europa.eu/overview-vision-agriculture-food/vision-agriculture-and-food\\_en](https://agriculture.ec.europa.eu/overview-vision-agriculture-food/vision-agriculture-and-food_en)
- European Commission (EC). (n.d. c). Farm to Fork strategy. [https://food.ec.europa.eu/horizontal-topics/farm-fork-strategy\\_en](https://food.ec.europa.eu/horizontal-topics/farm-fork-strategy_en)
- European Commission (EC) (2024). Bioeconomy and European Green Deal. [https://knowledge4policy.ec.europa.eu/bioeconomy/bioeconomy-european-green-deal\\_en](https://knowledge4policy.ec.europa.eu/bioeconomy/bioeconomy-european-green-deal_en)

- Farm to Fork Strategy. (n.d.). For a fair, healthy and environmentally-friendly food system. European Commission. [https://food.ec.europa.eu/horizontal-topics/farm-fork-strategy\\_en](https://food.ec.europa.eu/horizontal-topics/farm-fork-strategy_en)
- Farr, J., & Nelson, R. (2024). Food Policy in Australia. Food System Horizons Fact Sheet. The University of Queensland and CSIRO, Brisbane. <https://foodsystemhorizons.org/wp-content/uploads/2024/04/FSH-Fact-sheet-3.-Food-policy-in-Australia.pdf>
- Food Innovation Australia Limited (FIAL). (n.d.). Resources for Implementing the National Food Waste Strategy. <https://www.agriculture.gov.au/sites/default/files/documents/resources-implementing-national-food-waste-strategy.pdf>
- Food Environment Dashboard. (n.d.). How healthy are Australia's Food environments? <https://foodenvironmentdashboard.com.au>
- Forbes, S., Bicknell, E., Guilovica, L., Wingrove, K., & Charlton, K. (2021). A rapid review of the environmental impacts associated with food consumption in Australia and New Zealand. Current Nutrition Reports. <https://doi.org/10.1007/s13668-021-00374-0>
- Hochman Z., Carberry, P. S., Robertson, M. J., Gaydon D., Bell, L. W., & McIntosh, P. C. (2013). Prospects for ecological intensification of Australian agriculture. European Journal of Agronomy, 44, 109-123. <https://doi.org/10.1016/J.EJA.2011.11.003>
- Imagine Collective. (2024). Future of food: Innovations and initiatives driving australia's food security in 2024. <https://imaginecollective.net/insights/future-of-food-innovations-and-initiatives-driving-australias-food-security-in-2024/>
- Intertek SAI Global. (2025). Ethical sourcing. <https://saiassurance.com.au/ethical-sourcing>
- Kelliher, M., Bogueva, D., & Marinova, D. (2024). Meta-analysis and ranking of the most effective methane reduction strategies for Australia's beef and dairy sector. Climate, 12(4), 50. <https://doi.org/10.3390/cli12040050>
- Knowledge Centre for Global Food and Nutrition Security (KCGFNS). (n.d.). We support the EU global commitment to end hunger, achieve food security and improve nutrition through a dedicated, reinforced science-policy interface and a fostered inter-policy dialogue. European Commission. [https://knowledge4policy.ec.europa.eu/global-food-nutrition-security\\_en](https://knowledge4policy.ec.europa.eu/global-food-nutrition-security_en)
- McClure, E. (2023). Roadmap to reshape Australia's food systems. CSIRO. <https://www.csiro.au/en/news/All/Articles/2023/June/Food-Systems-Roadmap>
- McIntyre, S. (2020). Intensive farming is eating up the Australian continent – but there's another way. <https://fennerschool.anu.edu.au/news-events/news/intensive-farming-eating-australian-continent-theres-another-way>
- Menon, P., & Olney, D. (2024). Transforming food systems for sustainable healthy diets: A global imperative. IFPRI. <https://www.ifpri.org/blog/transforming-food-systems-sustainable-healthy-diets-global-imperative/>
- Morelli, G. (n.d.). The food sovereignty movement aiming to put food security in our own hands. Australian Human Rights Institute. <https://www.humanrights.unsw.edu.au/news/food-sovereignty-movement-aiming-put-food-security-our-own-hands>
- Mozaffarian, D., Angell, S. Y., Lang, T., & Rivera (2018). Role of government policy in nutrition – barriers to and opportunities for healthier eating. BMJ, 361, k2426. <https://doi.org/10.1136/bmj.k2426>
- New South Wales (NSW) Government. (2023). Managing livestock to reduce methane emissions [https://www.dpi.nsw.gov.au/dpi/climate/Low-emissions-agriculture/carbon-farming-commprac/methane\\_emissions](https://www.dpi.nsw.gov.au/dpi/climate/Low-emissions-agriculture/carbon-farming-commprac/methane_emissions)

- Parliament of Australia (n.d.). Chapter 3 - National Food Plan. [https://www.aph.gov.au/Parliamentary\\_Business/Committees/House/Industry\\_Science\\_and\\_Resources/FoodandBeverage/Report/Chapter\\_3\\_-\\_National\\_Food\\_Plan](https://www.aph.gov.au/Parliamentary_Business/Committees/House/Industry_Science_and_Resources/FoodandBeverage/Report/Chapter_3_-_National_Food_Plan)
- Pelle, N. (2025). The impacts of food production and the wider food system on climate and nature. Australian Conservation Foundation, <https://acf.org.au/news/the-impacts-of-food-production-and-the-wider-food-system-on-climate-and-nature>
- Politico. (2025). 5 takeaways in the EU's big agriculture (and food) vision. <https://www.politico.eu/article/eu-agriculture-food-policy-christophe-hansen-trade-food-pricing-supply-chains/>
- Ribeiro de Melo, P., Baker, P., Machado, P. P., Howse, E., Slater, S., & Lawrence, M. (2024). An analysis of the transformative potential of Australia's national food policies and policy actions to promote healthy and sustainable food systems. *Public Health Nutrition*, 27(1), e75. <https://doi.org/10.1017/S1368980024000478>
- Ruben, R., Cavatassi, R., Lipper, L., Smaling, E., & Winters, P. (2021). Towards food systems transformation—five paradigm shifts for healthy, inclusive and sustainable food systems. *Food Security*, 13, 1423-1430. <https://doi.org/10.1007/s12571-021-01221-4>
- Statista (2025). Sustainable consumption in Australia - statistics & facts. <https://www.statista.com/topics/10534/sustainable-consumption-in-australia/#topicOverview>
- United Nations (UN). (n.d.). Transforming food systems to return to Earth's limits. United Nations Food Systems Coordination hub. [https://www.unfoodsystemshub.org/docs/unfoodsystemslibraries/sac/sac-theme-2-policy-brief.pdf?sfvrsn=73a9da4e\\_1](https://www.unfoodsystemshub.org/docs/unfoodsystemslibraries/sac/sac-theme-2-policy-brief.pdf?sfvrsn=73a9da4e_1)
- University of Wollongong. (2025). Developing circular economy-aligned scalable supply chains for local agri-food systems. <https://www.uow.edu.au/global-challenges/adapting-to-future-environments/supply-chains-for-local-agri-food-systems/>
- World Health Organisation (WHO). (2023). Commercial determinants of health. <https://www.who.int/news-room/fact-sheets/detail/commercial-determinants-of-health>
- Wynn, K., & Jarrett, L. (2023). Reshaping Australian Food Systems. CSIRO. <https://www.csiro.au/en/work-with-us/services/consultancy-strategic-advice-services/CSIRO-futures/Agriculture-and-Food/Reshaping-Australian-Food-Systems>