



**AUSTRALIAN FOOD
SOVEREIGNTY ALLIANCE**

Submission to the Victorian Biosecurity Strategy

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About the Australian Food Sovereignty Alliance (AFSA)

AFSA is a farmer-led civil society organisation established in 2012 that works towards socially-just and ecologically-sound food and agriculture systems. The democratic participation of First Peoples, small-scale food producers and local communities in decision-making processes is integral to these efforts. Our vision is to promote care for Country and all on it through agroecology and localised, socially-just food systems, while promoting First Peoples' rights to self-determination and Country.

AFSA provides a balanced voice to represent small-scale food producers and local communities' interests at all levels of government. We connect small-scale food producers for farmer-to-farmer knowledge sharing, assist local, state and the federal government in instituting scale-appropriate and consistent regulations and standards, and advocate for fair access for small-scale food producers to local value chain infrastructure and markets.

We are part of a robust global network of civil society organisations involved in food sovereignty and food security policy development and advocacy. We are members of the International Planning Committee for Food Sovereignty (IPC), La Via Campesina (the global movement of peasant farmers), and Urgenci (the International Network for Community-Supported Agriculture). We also support the Australasian representative on the Civil Society and Indigenous Peoples' Mechanism (CSIPM), which articulates to the UN Committee on World Food Security (CFS).

Australians care more than ever about the way their food is produced and how and where they can access it, with a growing awareness of its social, environmental, and economic impacts. Governments must facilitate and encourage the emergence and viability of agroecology and regenerative agriculture embedded in localised food systems with short and direct supply chains, thereby protecting the environment and human and animal health. Intrinsic to this vision is the need to honestly and truthfully account for the Land's needs. As such, AFSA works to increase understanding of and appreciation for Aboriginal and Torres Strait Islander Peoples' connection to and care for Country and the ongoing impacts of colonisation and development on Country. We aim to put First Peoples' knowledge first as best practice for healing Country and sustaining life, and as an organisation we are committed to decolonising food and agriculture systems, and to promoting just relations between settlers and First Peoples.

The AFSA National Committee has consisted of farmers and allies from every state and territory in Australia, including academics from the University of Melbourne, RMIT, Deakin University, University of Tasmania, University of Sydney, QUT and UWA, and advocates such as Open Food Network, Food Connect, Friends of the Earth, the Youth Food Movement, Fair Food Brisbane, and the Permaculture Network.

The Peoples' Food Plan

People and our governments generally want to build a future that is fair for all, but can be stuck in old ways of thinking and doing that make it difficult to know how to build that future. Through the Peoples' Food Plan¹, AFSA provides a strong, evidence-based analysis of the problems and context,

¹ Available at <https://afsa.org.au/peoples-food-plan-draft-consultation/>

identifies the false solutions proposed by those trying to maintain power and the unfair hoarding of social wealth, shares peoples' and communities' grassroots actions, shows how educational institutions can shift paradigms to do better work for the public good, and details policy interventions that can enable the agroecological transition we so desperately need.

Context: Industrial Agriculture is a Biosecurity Threat

Issue: Colonial Agriculture

The production of a constantly narrowing range of species and breeds of animals and plants is leading to serious biosecurity risks. One of the most significant risks is from intensive livestock production, and the expansion of industrial agriculture into remote areas of forest, giving rare pathogens new opportunities to access vulnerable hosts, and leading to new and more virulent strains of influenza and coronaviruses such as COVID-19. But it is not just zoonotic disease that is on the rise from industrial agriculture systems, we are also seeing plagues of invasive pests and the rise of 'superweeds', weeds that have evolved characteristics that make them more difficult to control as a result of repeatedly using the same management tactic, most notably herbicides. As long as we have a production system that is nearly completely reliant on herbicides for weed management, herbicide resistant weeds will remain a serious threat to agriculture.

We reject the notion that Nature is capital, or that humans are separate from Nature. The increasing biosecurity threats we face globally are a direct result of human failures to perform our ecosystem niche role to be good custodians of Country and the human and more-than-human world Country supports. Strategies that promote further separation of humans from Nature will not resolve nor mitigate biosecurity risks, instead they further entrench the industrial systems which have caused the biodiversity and climate change crises that increase the risks.

Imperial expansion and colonial 'development' are the original invasive systems that have led to a catastrophic loss of biodiversity and First Peoples' traditional biocultural knowledges and practices, and consequent increasing biosecurity threats. Any strategy that seeks to understand the growing threats to ecosystems (including humans and more-than-humans), cultures, and economies must put First Peoples first to centre their right to self-determination and Country, and learn from traditional knowledges how Aboriginal and Torres Strait Islanders propose to act.

Invasiveness has come to be understood as emergent, achieved by species' traits conferring with the specificities of the pathway on offer and the opportunities in the receiving environment.²

So long as governments continue to scope biosecurity strategies with narrowly conceived categories of management of exotic and established exotic pests, weeds, and diseases, they fail to take a systems approach that acknowledges the complex interactions between species in ecosystems, and the history

² Barker & Francis, 2021 (p.4)

of colonial invasion that brings us to the current vulnerable state of Australia's food and agriculture systems.

We must end the 'whack-a-mole' approach to biosecurity that fails to ask why diseases are emergent in the first place (intensive monocultures are producing diseases and increased pathogen loads), and why those same production models are fundamentally lacking the resilience to cope with incursions when they do occur. Addressing the loss of biodiversity in agro-ecosystems is central to halting the increase in biosecurity threats facing the world today.

Issue: Loss of biodiversity

It is well established that industrial agriculture is a major driver of climate change and biodiversity loss.³ Widespread land conversion, habitat loss, excessive pesticide usage, and a range of other direct and indirect factors, impact and threaten on- and off-farm biodiversity, with disastrous consequences on ecosystems and their human and more-than-human inhabitants. Industrial agricultural practices diminish soil biodiversity and therefore soil fertility, threatening the future of food and nutritional security.

In Australia as elsewhere, the rise of fast-growing, high-yielding industrial genetics has led to a concomitant loss of rare- and heritage-seed varieties and breeds of livestock. The Rare Breeds Trust of Australia (RBTA) notes how in Australia, the erosion of genetic diversity in cattle has resulted in around 83 percent of the dairy herd consisting of Holstein–Friesians.⁴ They highlight how among Holsteins, the intensity of selection for milk volume has compromised other traits resulting in metabolic and structural problems, increased production disease prevalence, and reduced fertility and longevity in the breed. Whilst the movement to preserve Australia's heritage breed livestock has been gaining traction for at least two decades, it is still nascent and unsupported by government policy.⁵

In addition to the lack of policy supporting agricultural biodiversity, there is also a notable dearth of academic or industry research in Australia on the importance of biodiversity in agriculture.⁶ Recent initiatives such as the Australian Farm Biodiversity Certification Scheme Trial funded by the Federal Government Department of Agriculture, Water and Environment⁷ demonstrate all too clearly how far Australia has to go in understanding the urgent need for transformation of agriculture, as to date it does not explicitly include any focus on increasing biodiversity in agricultural produce, only in the landscape surrounding production areas. In fact, most government biodiversity strategies are silent on the importance of biodiversity in and for agriculture, referring only to wild or native plants and animals, as though biodiversity only happens in the shelterbelts, ignoring farmland itself, which constitutes more than half of Australian land use.⁸

To no small extent, this perhaps stems from the 'land sparing' conservation argument that posits human activity as inherently separate from and detrimental to nature. This leads to a key misconception surrounding the effects of livestock – and farming in general – on biodiversity: that all farmers manage ecosystems equally. There is an inescapable distinction between large-scale intensive livestock producers, who intensively confine one or two breeds and erode the soil quality and biodiversity of surrounding ecosystems, and the Indigenous Peoples and small-scale farmers who have

³ IPBES, 2019

⁴ Gressier, n.d.

⁵ Jonas, 2017; Iles, 2020

⁶ Walton, 2019

⁷ National Farmers Federation, 2018

⁸ Australian Government Department of Agriculture, Fisheries and Forestry, 2022

managed pasture-based livestock alongside healthy, biodiverse agro-ecosystems for millenia⁹. Generalisations across the spectrum of livestock management practices ignore the diversities in scale, ecosystem management, and livestock biodiversity that exist across these farms. Such generalisations are further problematic in their preference towards false solutions such as nature-based solutions, payments for environmental services (such as carbon markets), and farm lock-ups, which are discussed at length in [‘False Solutions’](#).

Agricultural biodiversity is disappearing rapidly as a result. This encompasses a range of essential biodiversity for sustainable food production, including soil biota, pollinators, and genetically diverse seed. Industrial agriculture, forestry, and fisheries systems use homogeneous, proprietary seeds, trees, breeds and aquatic species, scientifically bred and often genetically modified to include limited traits, which are useful to industry. They are grown in simplified agroecosystems that are heavily contaminated with biocides and other agri-chemicals.

Biodiversity losses extend across wild and domestic animal species and, as of 2016, ‘559 of the 6,190 domesticated breeds of mammals used for food and agriculture (over 9%) had become extinct and at least 1,000 more are threatened’.¹⁰ In addition, while 300,000 species of plant have edible parts, just 20 species account for 90 percent of the world’s food and three - wheat, maize and rice - supply more than half.¹¹ This poses ‘a serious risk to global food security by undermining the resilience of many agricultural systems to threats such as pests, pathogens, and climate change’.¹²

Issue: The threats of zoonotic disease are increasing

Three out of four of all new and emerging human infectious diseases are zoonotic in origin, and a study in the journal *Nature* found that conventional agriculture was associated with half of all the zoonotic pathogens¹³ that emerged in humans in that time.¹⁴

Highly pathogenic strains of what Bulach et al. (2010) reported are monophyletic H7N3, H7N4, and H7N7 were documented on large broiler and layer poultry operations in Victoria and Queensland as far back as the 1970s (Cross 1986/2003, Westbury 1998). An on-site increase in the virulence of an avian influenza H7N4 strain from low to high pathogenicity in 1997 was documented on a large commercial broiler-breeder operation of 128,000 birds (Selleck et al. 2003).¹⁵

Why this association? Because capitalist industrial agriculture is a recipe for biodiversity suppression and erosion, which is ergo a major contributor to the development of pandemics. Amassing thousands of genetically identical animals in close quarters creates the conditions for pathogens to thrive and potentially mutate to infect other organisms close by, including people.

Such ills are often managed in comparatively sterile, though at such densities still pathogen-conducive, conditions, requiring continuous applications of vaccine and pharmaceuticals in livestock to reduce now endemic diarrheas and respiratory diseases.

⁹ FAO & Platform for Agrobiodiversity Research, 2011

¹⁰ Díaz et al., 2019 (p.12)

¹¹ Barnett, 2015

¹² *ibid*

¹³ Rohr et al. 2019

¹⁴ Whalen, 2021

¹⁵ Wallace, 2018

Pesticides are applied to crops largely engineered for withstanding still greater petrochemical application, selecting for superweeds and pests.¹⁶

In some parts of the world microbes have already evolved to resist 80 percent of the antibiotics used on animals.¹⁷

When chickens, pigs or cows are forced to live in crowded conditions - sometimes by the tens of thousands - disease is inevitable. This has led to the widespread use, and overuse of antimicrobial drugs in farming.¹⁸

The role monocultures of livestock and crops play in disease emergence has been known for decades, just as it has been known that smallholder, low-input farming rarely breeds such potential disasters.¹⁹ Biodiversity-rich farms, therefore, are the most effective form of biosecurity we have, as they are both a form of prevention of outbreaks and system-level resilience when they occur.

Long, complicated supply chains and free trade agreements are contributing to the rapid spread of diseases (such as African Swine Fever and Foot and Mouth Disease), while small-scale pastured livestock production in agroecological systems selling meat in direct supply chains reduces the risks of disease emergence and spread. Agroecological systems are also far more able to adapt to climate change (itself also a known contributor to the rise and spread of zoonoses, such as Japanese Encephalitis Virus' appearance in southern Australia for the first time in 2021).

It is worth quoting a 2021 FAO thematic paper on One Health at length, which categorises the three major anthropogenic drivers of zoonotic disease emergence (these are also aligned with Australia's Strategy for Nature 2019-2030).²⁰

- Modifications to natural habitats. These include climate and land-use changes, development (urban or agricultural), dams, extractive industries, loss of biodiversity, ecosystem services, natural resources and habitat, encroachment on natural habitats, and environmental contamination;
- Changes in agricultural practices. These include agricultural intensification and expansion of crop, livestock and aquaculture farming, changes in food value chains (global or across country/regional borders), waste management (of water, faeces, antimicrobials, runoffs), unregulated use of antibiotics, globalised value chains, and marketing; and
- Human behaviour and choices. These include increased utilisation/exploitation of wildlife for exclusive food consumption in urban centres (wildlife, bushmeat), traditional medicines using animal body parts or organs, and exotic pet ownership.²¹

¹⁶ Wallace, 2016 (p.242)

¹⁷ United Kingdom Government, 2021

¹⁸ *ibid.*

¹⁹ Graham et al. 2008

²⁰ Australia's Nature Hub, 2019

²¹ Alders, 2021

Issue: The need to shift One Health approaches upstream

ONE HEALTH

One Health is an integrated, unifying approach that aims to sustainably balance and optimise the health of people, animals and ecosystems. It recognises the health of humans, domestic and wild animals, plants, and the wider environment (including ecosystems) are closely linked and interdependent.

The approach mobilises multiple sectors, disciplines and communities at varying levels of society to work together to foster well-being and tackle threats to health and ecosystems, while addressing the collective need for clean water, energy and air, safe and nutritious food, taking action on climate changes and contributing to sustainable development.²²

In an ecological context, One Health promotes the health of people, biodiversity, and ecosystems, and therefore needs to address the root causes of biodiversity loss and ecosystem degradation.²³

One Health has yet to work on protecting or restoring biodiversity and ecosystems as upstream interventions to prevent and mitigate health threats. Spillover risk mitigation measures are limited as countries typically take a partial One Health approach that includes the veterinary and public health sectors but leaves out the agriculture, wildlife and environment sectors. This approach means that prevention of pest and disease emergence is not a part of the solution, which places biodiversity and ecosystems at further risk of degradation and makes spillover events more likely.²⁴

Systems thinking is not new. Many traditional philosophies associated with Indigenous communities who have lived in and managed ecosystems for thousands of years are based on understanding of and respect for the systems that sustain life in their local areas, paradigms which align well with the principles and practices of agroecology.²⁵ The narrow attention within biosecurity to circulating risks, which demands protocols too costly for small-scale farmers to implement, simply entrenches the further imposition of industrial farming as part of the solution.

Governments must look to the health of production systems to address biosecurity risks before they are created in sheds of immuno-compromised genetically identical pigs and poultry or in vast monocultures of annual crops. Until the drivers of disease emergence are addressed, we will continue to pay the price.

Issue: Domestic invasive species

Perhaps one of the most difficult issues we collectively face in protecting and enhancing biodiversity is the impact of domestic pets and other animals on biodiversity, such as cats, dogs, horses and rabbits. Australians love their pets, where cats and dogs are the most popular choice of domestic animals kept

²² Panel (OHHLEP) et al., 2022

²³ FAO, UNEP, WHO, & WOA, 2022

²⁴ FAO, UNEP, WHO, & WOA, 2022

²⁵ VSF Europa, 2014

in homes across the country. Having a conversation about the impact of pets and other domestic animals on biodiversity does not discount that pets are wonderful companions that improve our mental health and wellbeing. Rather, it's about responsible pet and domestic animal ownership to ensure the health and wellbeing of all life in our natural environment.

Every day in Australia, cats kill 3.2 million mostly native mammals; 1.2 million mostly native birds; 1.9 million mostly native reptiles; 0.25 million native frogs; and 3 million invertebrates.²⁶ A single pet cat will on average hunt and kill 196 mammals, birds and reptiles per year if let outside to roam. Despite their impact on biodiversity, our beloved feline friends are also vulnerable to being killed by traffic, snakes, toads and other wildlife outdoors so keeping them indoors or in a contained outdoor space promotes their own safety as well as for other animals.

Both domestic and wild dogs are also a threat to native wildlife, and are considered a risk to at least 14 native animals, birds and reptiles.²⁷ Meanwhile, horses and camels have detrimental impacts on the natural environment, as they overgraze endangered plant communities; affect plant and animal abundance and diversity; spread invasive plants; erode soil; and increase sediment in waterways.²⁸ Feral horse trampling reduces the organic layer of soils, increases soil compaction and run-off, and reduces water infiltration and nutrient recycling.²⁹ Rabbits also contribute to ecological degradation by: overgrazing native and sown pastures, leading to loss of plant biodiversity and reduced crop yields; competing with native animals and domestic livestock for food and shelter; increasing grazing pressure and lowering the land's carrying capacity; building warrens, causing land degradation and erosion; preventing or inhibiting the regeneration of native shrubs and trees by grazing; increasing and spreading invasive weeds; and acting as a food source for introduced predators, which can lead to increased lamb losses and disease prevalence, and a decrease in small mammal diversity.³⁰

False Solutions

False solutions are measures that propose to address climate change, biodiversity loss, hunger, poverty, and other global crises that fail to address the economic, social and ecological roots of the crises caused by colonial capitalism. They may offer a short-term improvement, and are often framed in a way that deceives people with high tech and undemocratic approaches. These failures have the potential to create further social and ecological destruction, felt by marginalised communities first and foremost.

False solutions include technologies and policies at a global, national and sub-national level, that:

- Fail to reduce emissions or biodiversity-damaging practices where there's a continued focus on growth and exports;
- Allow countries, corporations and wealthy people most responsible for ecological damage to avoid their obligations and responsibilities to cut emissions and to halt and reverse biodiversity loss, while ensuring they retain control of food and agriculture systems;
- Transfer the responsibilities of emissions cuts and climate damage on communities that depend on land, forests, seas and oceans for survival; most of these communities have already been exploited for generations and face the brunt of catastrophic climate change and biodiversity loss that they did not cause;

²⁶ Threatened Species Recovery Hub, n.d.

²⁷ WoolProducers Australia, 2014

²⁸ NSW Department of Planning and Environment, 2023

²⁹ Ecological Society of Australia, 2023

³⁰ Centre for Invasive Species Solutions, 2012

- Promote privatisation and commodification of ecological resources and services, and generate private profits at the expense of people, communities and the environment; or
- Distract people and policy makers from real solutions; and direct public financing, infrastructure and institutional support away from the actions needed for systemic changes.

In the context of biosecurity, some examples of false solutions include:

- **Tighten border control.** Although border restrictions seek to mitigate the risk of emerging diseases entering the country, tightening controls is a costly and time-consuming measure that fails to address the root issue: industrial-scale, intensive livestock and monoculture crop farming significantly increase the risks of emerging zoonotic diseases, invasive species, and pests.
- **Lock up farms.** Similar to the problems of fortress conservation, locking up farms to reduce biosecurity threats fails to recognise a key opportunity to make agricultural lands and activities more diverse and resilient. On agroecological farms, biodiversity flourishes and mitigates the risk of emerging diseases by slowing or stopping the spread of pathogens.
- **Restrict exchange of seeds from peasant seed systems.** Corporate and government control over seed, seed knowledge and exchange does not prevent risks to biosecurity. Seed should remain within the commons for local farmers, First Peoples and communities to practise horizontal knowledge sharing to grow and produce their own foods from seed. Restricting seed exchange only disempowers people from having skills and knowledge (including the ability to identify crop threats in locally-adapted varieties).
- **Market solutions to market failures.** Part of the reason we are facing existential and connected poly-crises like biodiversity loss, climate change, pollution, and rising social and economic inequality is because markets have a reductive focus on generating financial profits. Therein they create externalities for people and the planet to bear while they pursue blinkered profit motivations. As Einstein said, ‘we cannot solve our problems with the same thinking we used when we created them.’ For example, a neoliberal market solution (such as environmental markets) to a neoliberal market problem (nature loss as a market externality) represents ‘more of the same’ style thinking in a time where we desperately need to shift paradigms to prioritise people and planet before profit.
- **Tighter regulations that are blind to scale and production model.** Regulation is an important part of protecting people and planet from the negative externalities generated by industrial food and agriculture systems. However, most regulation is blind to the scale or model of agricultural production, and places unnecessary burdens on small-scale farmers and producers, which can be a significant barrier to entry or ongoing viability. A clear example is the application of traceability requirements: they are the same for a package of ham from imported pork manufactured at a factory in Australia and shipped to supermarkets around the country as for ham made from pigs grown, killed, butchered, brined and smoked on a farm in licensed facilities and sold directly to the farms’ members through CSA (community-supported agriculture).

AFSA Response to the Draft Victorian Biosecurity Strategy

AFSA commends the Victorian Government for its efforts to address the rising threats to biosecurity through a consultative approach in drafting the strategy. We do note with some dismay, however, that although AFSA attended the workshop held in Ararat on 7 February as the national representative of small-scale farmers and allies, and has worked closely with Ag Vic for nearly a decade, we are not listed as a stakeholder.

Strategic Goal #1: Partnerships

AFSA welcomes the strategy's promotion of partnerships going forward, and looks forward to working with Biosecurity Victoria to represent small-scale farmers and our allies' interests in promoting and protecting socially-just and ecologically-sound food and agriculture systems. We especially commend the strategy's commitment to partnering with and learning from Aboriginal and Torres Strait Islander Peoples through methods that put First Peoples at the centre of decision making.

Recommendations

- Ensure that First Peoples and small-scale farmers' democratic organisations have a seat at decision making tables, including the Biosecurity Reference Group.
- Prioritise Indigenous and other customary tenure rights. Given the critical role of areas governed by First Peoples in conserving biodiversity,³¹ they need to participate in governance over protected areas and other community-based conservation measures.
- Support First Nations land management, such as cultural burning and traditional foods.
- Ensure that representatives of farmers, producers and local communities are involved in inclusive identification of priority animal and plant pests and diseases and the choice of feasible and measurable indicators in relation to their prevention and control.
- Address power imbalances and conflicts of interest in relation to the generation, validation and communication of knowledge about food production and processing, by valuing different sources of knowledge and bridging gaps between knowledge generated and transmitted through Indigenous Peoples and social movements on the one hand, and the scientific sector on the other.
- Apply a rights based framework to Indigenous and smallholder food and land management, by fulfilling the obligations outlined in the Nagoya protocol, the UN Declaration on the Rights of Indigenous Peoples (UNDRIP), and the UN Declaration on the Rights of Peasants (UNDROP).

Strategic Goal #2: Prevention

While AFSA supports a preventative approach to biosecurity, we strongly advocate moving further upstream in considerations of prevention to the systems that generate risks, in particular intensive industrial agriculture systems. Pests, weeds, and pathogens are what are often called 'pioneer species', 'hardy species that are the first to colonize barren environments or previously biodiverse steady-state

³¹ Díaz et al., 2019

ecosystems that have been disrupted.³² Fallow fields, single species tree plantations, and monocultures of grains, vegetables and livestock provide the optimal conditions for colonisation; industrial agriculture provides fertile ground for pioneer species, which constitute much of the known biosecurity threats we face today.

Australian biosecurity strategies have long been limited to surveillance and control through mitigation, ignoring prevention of the origins of biosecurity threats. Prevention does not begin at the border or the farm gate, it begins on the farm. Many emergent diseases such as novel porcine and avian influenza are born of intensive livestock production, a model that evolutionary epidemiologist Rob Wallace asserts produces ‘food for flu’³³ – because ‘raising vast monocultures removes immunogenetic firebreaks that in more diverse populations cut off transmission booms’.³⁴ In promoting awareness of biosecurity threats, then, the strategy needs to promote awareness of the importance of biodiversity in agriculture, forestry, and other managed landscapes, and support landholders to increase biodiversity in production models. Where the strategy advocates initiatives such as ‘Biosecurity Blitz’, AFSA recommends a better initiative would be a ‘Biodiversity Blitz’ on farms, which cover more than half of Australia’s landscapes.

Further, while AFSA supports traceability schemes in general, we note that often requirements for traceability are not scaled, and do not account for direct supply chains such as those our members sell through (e.g. farmers’ markets, community-supported agriculture (CSA), direct to restaurants). In these direct sales models, produce is ipso facto traceable, and regulations should account for this.

Recommendations

- Provide opportunities for public servants and communities to increase cultural awareness, and to learn from local First Peoples’ knowledges and practices of caring for Country.
- Develop resources that raise awareness and understanding of living in harmony with Nature (as per Goal 1 of Australia’s Strategy for Nature³⁵) and especially the importance of protecting biodiversity to reduce biosecurity risks. This includes publishing information about practical ways to protect and support biodiversity.
- Take an approach to biosecurity that focuses less on circulation, borders and breach points, on movement in and out. Rather attend to the qualities and complexity of relationships between disease/invasive species, environment and host; and the practices and ecologies that work to produce spaces alongside vulnerability and health. This moves from a simplified biosecurity dependent on keeping things out to one that addresses factors that build internal health and resilience.³⁶
- Build knowledge and capacity to develop and support ecologically-sound agro-ecosystems that are more resilient in the face of climate change and rising biosecurity threats.
- Implement policies that support local, diversified, sustainable, and equitable markets that enhance connections between producers and eaters.
- Legislate to conserve, reward and enhance the sustainable use of biodiversity in agricultural and other managed ecosystems across all levels of government, as means to increase social and ecological resilience, as well as the availability of healthy, nutritious and culturally adequate food to:

³² Wikipedia

³³ Wallace, 2016

³⁴ Wallace, et al. 2021 (p. 195)

³⁵ Australia’s Nature Hub, 2019

³⁶ Barker & Francis, 2021

- Support landholders' protection of significant ecosystems through stewardship or other effective conservation measures, or retaining and restoring native vegetation and connecting habitats. The restoration and connection of habitats should aim to maximise the genetic diversity and complexity of restored ecosystems³⁷
- Support systems that use native seeds, landrace varieties and breeds, as well as agroecological production, particularly those managed by smallholders, increasing the area dedicated to these systems; and
- Decrease the areas dedicated to genetically uniform production.
- Halt land clearing, like the Victorian Government bringing forward the ban of native forest logging.
- Establish legal rights for Nature as has been done in [Aotearoa / New Zealand](#) and is being pursued for [Martuwarra / Fitzroy River](#). *If non-living entities like corporations can have rights, so too should Nature as living biology.*
- Strengthen fines and penalties for non-compliance with environmental regulation.
- Review policies and targets that promote forests to protect or promote biodiversity, and exclude monoculture plantations that may (temporarily) serve as carbon sinks, but do not address biodiversity loss.
- Ensure that traceability requirements acknowledge scale and that direct supply chains (e.g. farmers' markets, CSA, farm to restaurant) are *ipso facto* traceable, and therefore subject to exemptions or other scale-appropriate measures.
- Enact legislation on reducing nutrients lost to the environment: Excessive use of organic and synthetic fertilisers leads to pollution levels that destroy sensitive plants and animals, and affect water bodies and terrestrial ecosystems such as meadows and forests.
- Develop financial mechanisms to account for loss of soil, carbon, and water from industrialised food and agricultural systems and build this cost into food prices through taxation or reward for those improving biodiversity and reducing these losses.
- Introduce a Healthy Soils Act (such as the New Mexico Healthy Soils Act).³⁸

Strategic Goal #3: Response

AFSA particularly notes the proposal to 'strengthen the resilience of the system before, during and after the event', and reiterates our concern that there is little to no focus on the systems 'before' an event that either create or are vulnerable to biosecurity risks.

In regards to focusing more on relief and recovery in addition to compensation, AFSA recommends a review of compensation and relief schemes to elucidate where production models are intrinsically higher risk (e.g. intensive livestock production) and where they are intrinsically more resilient (e.g. agroecology). Government should ensure that lower risk farms are not excluded from relief due to their smaller size, while also working to improve the resilience of the entire agricultural system by enabling increased biodiversity and reduced production intensity. While we agree that there is a need to support business planning that accounts for more shocks (e.g. droughts, fires, floods, novel zoonoses), AFSA advocates more proactive business planning that focuses on ecological and social health and resilience to support economic resilience. Agroecology provides more resilient livelihoods by promoting biodiversity, reducing inputs, and diversifying income, amongst its 13 Principles:

³⁷ Australia's Nature Hub, 2019

³⁸ NM Healthy Soil Working Group, 2023

1. **Recycling.** Preferentially use local renewable resources and close as far as possible resource cycles of nutrients and biomass.
2. **Input reduction.** Reduce or eliminate dependency on purchased inputs and increase self-sufficiency.
3. **Soil health.** Secure and enhance soil health and functioning for improved plant growth, particularly by managing organic matter and enhancing soil biological activity.
4. **Animal health.** Ensure animal health and welfare.
5. **Biodiversity.** Maintain and enhance diversity of species, functional diversity and genetic resources and thereby maintain overall agroecosystem biodiversity in time and space at field, farm and landscape scales.
6. **Synergy.** Enhance positive ecological interaction, synergy, integration and complementarity amongst the elements of agroecosystems (animals, crops, trees, soil and water).
7. **Economic diversification.** Diversify on-farm incomes by ensuring that small-scale farmers have greater financial independence and value addition opportunities while enabling them to respond to demand from consumers.
8. **Co-creation of knowledge.** Enhance co-creation and horizontal sharing of knowledge including local and scientific innovation, especially through farmer-to-farmer exchange.
9. **Social values and diets.** Build food systems based on the culture, identity, tradition, social and gender equity of local communities that provide healthy, diversified, seasonally and culturally-appropriate diets.
10. **Fairness.** Support dignified and robust livelihoods for all actors engaged in food systems, especially small-scale food producers, based on fair trade, fair employment and fair treatment of intellectual property rights.
11. **Connectivity.** Ensure proximity and confidence between producers and consumers through promotion of fair and short distribution networks and by re-embedding food systems into local economies.
12. **Land and natural resource governance.** Strengthen institutional arrangements to improve, including the recognition and support of family farmers, smallholders and peasant food producers as sustainable managers of natural and genetic resources.
13. **Participation.** Encourage social organisation and greater participation in decision-making by food producers and consumers to support decentralised governance and local adaptive management of agricultural and food systems.³⁹

Recommendations

- Improve the monitoring of recognised threats to biodiversity for food and agriculture (monoculture production systems, narrowing of livestock genetic resources, habitat destruction, pollution, inappropriate use of agricultural inputs, overharvesting, pests, diseases and invasive alien species), and strengthen efforts to reduce their negative impacts.⁴⁰
- Enact legislation whereby any incentives that are harmful to biodiversity need to be identified and eliminated or repurposed by 2030 in alignment with and exceeding the ambitions in the goals and targets of the Kunming-Montreal Global Biodiversity Framework.⁴¹

³⁹ Wezel, Herren & Kerr, *et al.* 2020

⁴⁰ FAO, 2019

⁴¹ Convention on Biological Diversity, 2022

Strategic Goal #4: Management

AFSA welcomes the strategy's emphasis on the importance of First Peoples' leadership in land management, including the management of weeds and pests, so long as they are given true decision making powers locally and resources for implementation. We strongly urge the Government to carefully consider the use of biocides and agri-chemicals in management practices and to follow the principles of avoidance and minimisation as a priority for human and ecosystem health. This is in line with the Kunming-Montreal Global Biodiversity Framework, which in Target 7, includes reduction of the risks from pesticides by half by 2030.⁴²

Today, there are around 1400 agri-chemicals used in agriculture across the globe. These chemicals are referred to as pesticides broken down into five key categories: herbicides that kill invasive weeds and plants; insecticides that kill insects and arthropods; rodenticides to kill mice and other rodents; fungicides that kill fungi; and molluscicides that kill mollusks.⁴³ The key word we use here is kill, because these chemicals were designed by companies whose very purpose is to profit from warfare. Chemical and pharmaceutical company I.G Farben was responsible for developing Zyklon B, the nerve agent used to kill Holocaust victims in concentration camps during World War II. When the war ended, these companies turned their attention to using chemicals of warfare to kill nature, by marketing nerve agents to farmers as a modern breakthrough in pest-control, rather than the agents of genocide.

Recommendations

- Phase out the use of HHPs as a necessary measure to meet biodiversity targets. A relatively small number of Highly Hazardous Pesticides (HHPs) cause disproportionate harm to the environment and human health, including severe environmental hazards and acute and chronic toxicity.
- Ban the use of synthetic pesticides. Undeniable evidence exists that synthetic pesticides pose significant risks to biodiversity and ecosystem services affecting non-target species, ranging from beneficial soil microorganisms, insects, plants, fish, and birds to humans, with an alarming number of deaths and chronic diseases related to pesticide exposure.
- Develop a strategy for maintaining quality skilled occupations in agriculture and food systems, where people have autonomy and responsibility to understand complex ecosystems and production environments, and have capacity to read early signs of biosecurity threats.

Strategic Goal #5: Enablers

The industrial system proposes to address the cascading crises of climate change, biodiversity loss, hunger and obesity, poverty, and biosecurity threats with more technology and the development of new so-called environmental markets. This increasing financialisation of nature is worse than band-aids on cancer, it is fighting cancer with cancer. The current economic system is fundamentally inequitable - capitalism is built on the exploitation of land and labour and the endless pursuit of profit (as opposed to livelihood). Agroecology, on the other hand, mends the 'metabolic rift'⁴⁴ created by capitalism, by healing farmers and local communities' relations with land and each other.

Overwhelming evidence shows 'that a transition to an agriculture based on agroecological principles would not only provide rural families with significant social, economic, and environmental benefits, but

⁴² Convention on Biological Diversity, 2022

⁴³ Shiva, V. (2016)

⁴⁴ Foster 1999

would also feed the world, equitably and sustainably'.⁴⁵ The Food and Agriculture Organisation (FAO) has identified the ways that agroecology can bring solutions to several SDGs, including:

- SDG 2: Zero Hunger
- SDG 1: No Poverty
- SDG 3: Climate Action
- SDG 15: Biodiversity
- SDG 8: Decent Work and Economic Growth
- SDG 5: Gender Equality, and
- SDG 10: Reduced Inequalities.⁴⁶

The evidence base is strong enough that agroecological principles are now also embedded in the Kunming-Montreal Global Biodiversity Framework adopted by nearly 200 countries at COP15 in December 2022.⁴⁷

AFSA members practise agroecological and regenerative farming practices, with most increasingly aligning themselves with agroecology - a scientifically and experientially justified practice of agriculture that is sensitive to the ecosystems in which it is situated and that fosters the democratic participation of all peoples in the food system. Its original and still predominant practitioners are Indigenous Peoples and peasant smallholders the world over.

Presently there are economic, political, and cultural lock-ins that limit capacity and opportunities for a just transition to agroecology. Some of the implications of neoliberal agriculture policies for agroecology in Australia include:

- Weak farmer resources for adopting agroecological practices;
- Demoralised and eroding rural communities; and
- Investment in export support instead of environmental support.⁴⁸

In turn, *enabling* dynamics for an agroecological transition include:

- Crises;
- Coalescing social organisation;
- Effective agroecological practices;
- External allies; and
- Favourable policies.⁴⁹

All of the above enablers are currently coalescing under:

- Escalating climate instability, and consequent devastating fires and floods;
- A global pandemic;
- Strengthening global and national food sovereignty movements;
- The emergence of farmer-to-farmer agroecology dialogues such as those run by La Vía Campesina and its members such as AFSA; and

⁴⁵ Nicholls and Altieri 2018 (pg. 1); FAO 2015; IAASTD 2009; IPES-Food 2016

⁴⁶ FAO, 2023

⁴⁷ Convention on Biological Diversity, 2022

⁴⁸ Iles 2020 (pg. 5)

⁴⁹ Ibid

- Increasingly supportive state and local governments offering targeted support for small-scale farmers.⁵⁰

High tech (false) solutions that further entrench centralised production and distribution are often touted by Global North elites, including GMOs to reduce the need for pesticides in plants, lab meat as a solution to growing demands for meat, hydroponics and other intensification methods growing in response to the need to feed cities, and increasing surveillance to monitor and control biosecurity risks. The FAO estimates that 75 percent of the world's crop diversity has been lost, due to agribusiness establishing systems that favour genetically uniform, high-yielding varieties.⁵¹ However, if we live in a balanced, diverse world, with local food supply chains and resilient systems, many of these technologies are not required. Currently, many technological approaches have the ability to further disrupt our long term ecosystem reliance, and are a dangerous path to progress along.

Recommendations

- Provide financial and educational support for farmers to justly transition from high-risk monocultures of plants and animals to biodiverse and ecologically sustainable farming practices;
- Fund grants to democratically-constituted farmer organisations to collectivise and develop cooperative production, processing, and distribution infrastructure needed for small-scale agriculture in localised food economies (e.g. farming equipment, abattoirs, boning rooms, grain mills, dairy processing, refrigerated transport and storage);
- Directly fund and support a transition to agroecology:
 - Provide vegetation and infrastructure grants (such as biodiversity levies used for rural farm initiatives in Lismore City Council)
 - Provide innovative financing like interest free loans. For example, [revenue contingent 'HECS' style loans for restoring nature on farms.](#)
- Develop and fund generously school curricula with a focus on agroecology and food literacy including garden and teaching staff;
- Increase investment in research and development to support programs in agroecological approaches;
- Develop and support transdisciplinary research conducted through platforms that foster co-learning between practitioners and researchers, and horizontal dissemination of experience among practitioners (e.g. farmer-to-farmer networks, communities of practice and agroecological beacons);
- Ensure that educational programs for agricultural extension and public health workers are promoting horizontal learning processes and democratically-determined use of appropriate technologies, as well as a better understanding of the role of agroecological practices for nutrition and human, animal and environmental health;
- Expand One Health to be more inclusive of the professionals across **all levels of government** responsible for wildlife, biodiversity, biosecurity, natural resource management, animal health, public health, and the environment.
- Promote transparent agricultural data governance that ensures equal rights for First Peoples, small-scale farmers and fishers through the following considerations:
 - Agroecology provides the framework for innovations that should be promoted, enabled and supported by public policies, financing and responsible investments to

⁵⁰ Mier Y Teran Cacho et al. 2018; Anderson et al. 2019; Iles 2020

⁵¹ FAO, 2004

- ensure sustained development and evolution of agroecological innovations and practices by small-scale farmers.
 - Recognise, support and promote farmer’s innovations and agroecological practices, particularly involving indigenous and traditional knowledge systems, harnessing endogenous capacities and responding to local needs and situations, as already enshrined in UNDROP and UNDRIP.
 - Small-scale farmers should have access to, control and ownership over digital technologies and data in agriculture.
- Regulate to address threats and the adverse consequences of application of digital technologies in agriculture which:
 - Take away farmer’s control over data and information on their fields and practices
 - Violation of privacy and community rights over data and information pertaining to farmers’ practices and innovations
 - Further consolidation of control and power of corporations over food and agriculture through IPR and control over Big Data on impacts of digitalisation on the environment, biodiversity, genetic resources and the climate
 - Undermine farmer’s access, control and rights over seeds and breeds resulting from digitalisation of agricultural genetic resources.

Kunming-Montreal Global Biodiversity

Framework: relevant targets

TARGET 1 Ensure that all areas are under participatory, integrated and biodiversity inclusive spatial planning and/or effective management processes addressing land- and sea-use change, to bring the loss of areas of high biodiversity importance, including ecosystems of high ecological integrity, close to zero by 2030, while respecting the rights of indigenous peoples and local communities.

TARGET 2 Ensure that by 2030 at least 30 per cent of areas of degraded terrestrial, inland water, and marine and coastal ecosystems are under effective restoration, in order to enhance biodiversity and ecosystem functions and services, ecological integrity and connectivity.

TARGET 3 Ensure and enable that by 2030 at least 30 per cent of terrestrial and inland water areas, and of marine and coastal areas, especially areas of particular importance for biodiversity and ecosystem functions and services, are effectively conserved and managed through ecologically representative, well-connected and equitably governed systems of protected areas and other effective area-based conservation measures, recognizing indigenous and traditional territories, where applicable, and integrated into wider landscapes, seascapes and the ocean, while ensuring that any sustainable use, where appropriate in such areas, is fully consistent with conservation outcomes, recognizing and respecting the rights of indigenous peoples and local communities, including over their traditional territories.

TARGET 4 Ensure urgent management actions to halt human induced extinction of known threatened species and for the recovery and conservation of species, in particular threatened species, to significantly reduce extinction risk, as well as to maintain and restore the genetic diversity within and between populations of native, wild and domesticated species to maintain their adaptive potential, including through in situ and ex situ conservation and sustainable management practices, and effectively manage human-wildlife interactions to minimize human-wildlife conflict for coexistence.

TARGET 5 Ensure that the use, harvesting and trade of wild species is sustainable, safe and legal, preventing overexploitation, minimizing impacts on non-target species and ecosystems, and reducing the risk of pathogen spillover, applying the ecosystem approach, while respecting and protecting customary sustainable use by indigenous peoples and local communities.

TARGET 6 Eliminate, minimize, reduce and or mitigate the impacts of invasive alien species on biodiversity and ecosystem services by identifying and managing pathways of the introduction of alien species, preventing the introduction and establishment of priority invasive alien species, reducing the rates of introduction and establishment of other known or potential invasive alien species by at least 50 per cent by 2030, and eradicating or controlling invasive alien species, especially in priority sites, such as islands.

TARGET 7 Reduce pollution risks and the negative impact of pollution from all sources by 2030, to levels that are not harmful to biodiversity and ecosystem functions and services, considering cumulative effects, including: (a) by reducing excess nutrients lost to the environment by at least half, including through more efficient nutrient cycling and use; (b) by reducing the overall risk from pesticides and highly hazardous chemicals by at least half, including through integrated pest management, based on science, taking into account food security and livelihoods; and (c) by preventing, reducing, and working towards eliminating plastic pollution.

TARGET 10 Ensure that areas under agriculture, aquaculture, fisheries and forestry are managed sustainably, in particular through the sustainable use of biodiversity, including through a substantial increase of the application of biodiversity friendly practices, such as sustainable intensification, agroecological and other innovative approaches, contributing to the resilience and long-term efficiency and productivity of these production systems, and to food security, conserving and restoring biodiversity and maintaining nature's contributions to people, including ecosystem functions and services.

Thank you for the opportunity to submit our thoughts and recommendations herein. We welcome any further opportunities to participate in Victoria's biosecurity strategy.

The Australian Food Sovereignty Alliance