

15 December 2023

Department of Agriculture, Fisheries and Forestry  
Agriculture and Land Sectoral Plan  
GPO Box 858  
Canberra ACT 2601

To Whom it May Concern,

**Re: Agriculture and Land Sectoral Plan**

The Next Economy is a not-for-profit regional economic development agency that supports regions across Australia to take advantage of emerging opportunities in the transition to a climate-safe, equitable and regenerative economy. This includes undertaking work across Australia to help regional communities better understand the impacts and opportunities associated with decarbonising the land and agricultural sectors.

Over the last three years, The Next Economy has engaged directly with people representing local governments, industry, small to medium-sized businesses, workers, First Nations groups, environmental organisations, young people, migrant communities, social services, education/training institutions, and community groups. Engagement activities have included workshops, interviews, surveys, focus groups and roundtable discussions. This work provides us with insights into trends, opportunities, issues and perspectives in regional areas relating to climate change, decarbonisation and economic transition.

We welcome the opportunity to contribute to the development of the Agriculture and Land Sectoral Plan. The agriculture and land sector plays an important role in the Australian economy. During the 2021-22 period, the value of Australia's agricultural, fisheries, and forestry exports amounted to an estimated \$76 billion.<sup>1</sup> The sector employs over 300,000 people, 83 per cent of whom live in rural and regional areas.<sup>2</sup> While the sector is significantly impacted by the effects of climate change, in the year to March 2023, agriculture accounted for 17.5 per cent of Australia's greenhouse gas

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<sup>1</sup> Department of Agriculture, Fisheries and Forestry: *Snapshot of Australian Agriculture 2023*;  
<https://www.agriculture.gov.au/abares/products/insights/snapshot-of-australian-agriculture#around-72-of-agricultural-production-is-exported>

<sup>2</sup> Department of Agriculture, Fisheries and Forestry: *Snapshot of Australian Agriculture 2023*;  
<https://www.agriculture.gov.au/abares/products/insights/snapshot-of-australian-agriculture#around-72-of-agricultural-production-is-exported>

emissions.<sup>3</sup> As such, the sector can play a significant role in reducing and sequestering Australia's overall emissions to limit global warming to 1.5°C which will also support the viability of the sector in the long term.

This submission outlines areas within the agriculture and land sector where action can be taken to support long term viability and resilience of the sector and contribute to emissions reductions including:

- Conservation of high-integrity ecosystems
- Land management
- Farming practices
- First Nations practices
- Australia's carbon market
- Demand side changes

### Conservation of high-integrity ecosystems

The loss of high integrity ecosystems and climate change are intrinsically related. Unsustainable land use contributes to the loss of ecologically resilient habitats and biodiversity, which further exacerbates climate change by reducing the ecosystems' capacity to absorb and store greenhouse gases.<sup>4</sup>

A report in 2021 by the Intergovernmental Panel on Climate Change and The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services<sup>5</sup> demonstrates that efforts to support biodiversity, such as conserving, protecting and restoring degraded ecosystems, typically contribute to a range of core benefits both for biodiversity and climate mitigation and so stated that climate change and biodiversity loss must be tackled together if either problem is to be solved.

In recognition of the importance of natural ecosystems, Australia has committed to restore 30 per cent of areas of degraded ecosystems and protect at least 30 per cent of Australia's land in ecologically representative and well-connected networks of protected areas by 2030.<sup>6</sup> Limiting further deforestation and land clearing; expanding protected areas and nature corridors; conserving

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<sup>3</sup> Department of Climate Change, Energy, the Environment and Water, *Quarterly Update of Australia's National Greenhouse Gas Inventory: March 2023*; <https://www.dcceew.gov.au/sites/default/files/documents/national-greenhouse-gas-inventory-march-2023.pdf>

<sup>4</sup> UN Environment Programme World Conservation Monitoring Centre, 2020, *Strengthening Synergies. How action to achieve post-2020 global biodiversity conservation targets can contribute to mitigating climate change*; [https://www2.unep-wcmc.org/system/comfy/cms/files/files/000/001/823/original/Strengthening\\_Synergies.pdf](https://www2.unep-wcmc.org/system/comfy/cms/files/files/000/001/823/original/Strengthening_Synergies.pdf)

<sup>5</sup> IPBES-IPCC, 2021, *IPBES-IPCC co-sponsored workshop report on biodiversity and climate change*; <https://zenodo.org/records/5101133>

<sup>6</sup> Department of Climate Change, Energy, the Environment and Water: *A New Global Biodiversity Framework: Kunming-Montreal Global Biodiversity Framework*; <https://www.dcceew.gov.au/environment/biodiversity/international/un-convention-biological-diversity/global-biodiversity-framework>

and regenerating existing forests, wetlands, peatlands and soils will support achieving Australia's targets, as well as facilitate carbon sequestration.

Additional actions to support the maintenance and repair of ecosystems and biodiversity include:

- Establishing a dedicated, independent, expert regulator – a new national EPA to administer the laws.
- Requiring regional planning for coordinated approaches to biodiversity preservation and emissions reduction and providing adequate funding and access to expertise to create achievable and effective plans.
- Updating state and territory land use planning and environmental protection laws.

## Land Management

In Australia, agricultural land covers over 50 per cent of Australia's land mass and contributes 17.5 per cent of greenhouse gas emissions per year. Agriculture is the main cause of human-induced land clearing and a major driver of land degradation.<sup>7</sup> Changes to how we manage land in agriculture, forestry and other uses can help Australia to meet its biodiversity and climate targets.

Limiting land clearing and protecting ecosystems is important for reducing emissions and for keeping land carbon sinks functioning. In addition to reducing existing emissions, co-benefits of biological carbon sequestration can increase soil productivity, increase biodiversity, reduce erosion, create 'shelterbelts', and provide a diversified income stream through carbon markets.

However, it is not possible to sequester emissions at the rate needed to achieve the target of keeping global warming below 1.5°C through ecosystem protection alone. Additional policies and programs could support more sustainable land practices, the restoration of degraded landscapes and a substantial reduction in the production of emissions in the agriculture and land sector.

The Government can encourage changes in land use that would mitigate climate change through:

- Transforming regulatory systems to balance competing pressures on land use (decarbonisation, sequestration, renewable energy development, urban development and the growing demand for food and fibre).
- Expanding awareness of the benefits of environmental preservation for agricultural production.
- Restricting land clearing and increasing requirements for the reforestation of cleared areas.

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<sup>7</sup> Department of Climate Change, Energy, the Environment and Water, *Drivers of land clearing in Australia*; <https://www.dcceew.gov.au/sites/default/files/documents/nga-drivers-of-land-clearing-in-australia.pdf>

- Incentivising the maintenance and repair of land and ecosystems through replanting and other activities that support decarbonisation through grants and funding.

Encouraging repurposing and co-use (for example with clean energy projects, and other local businesses) of cleared sites instead of clearing new sites.

## Farming Practices

Farmers are critical to the ultimate success of efforts to decarbonise the agriculture and land sector in Australia. As mentioned, agriculture is responsible for 17.5 per cent of Australia's emissions. Farms are also highly vulnerable to the impacts of climate change. There is significant scope to transform traditional farming methods to practices that reduce emissions while also improving the capacity of farms to adapt to climate change climate.

While changes to farming practices pose a cost and risk to farmers, decarbonisation also presents new opportunities for farmers, land holders, regional workers and businesses to adapt and prosper. As the agriculture and land sector reorients itself toward tackling the challenge of climate change, the government can establish policies, funding and programs designed to support farmers and land users to:

- Improve soil health through increasing crop rotation and diversity, cover cropping, reducing the use of chemical fertilisers and pesticides, and limiting soil disruption.
- Use feed supplements that reduce emissions from livestock.
- Establish perennial pastures with grazing.
- Establish ground cover management targets.
- Revegetate to improve soil health, prevent erosion and establish windbreaks and shelter.
- Invest in on-farm renewables and discuss the co-benefits for farmers and communities.
- Support the widespread use of natural capital accounting.

Attitudes towards climate change and the perception of risks of changing practices for farms and enterprises can add to the resistance to new approaches. Improving awareness of the benefits of new farming methods could be actively promoted, alongside supporting farmers to incorporate these practices through providing access to education services and to farmers who have already successfully implemented new approaches.

Another major barrier to uptake of the above practices is the cost of converting farming practices. The cost of converting systems and practices can be high and the time taken to convert practices can reduce income during the transition period. Without incentives or regulation to encourage the transition, the risks may appear to outweigh any benefits and lead to a poor uptake of measures needed to address climate change.

For larger farms, the scale of farming may itself be a barrier to implementing some of the above practices. These farms may also be locked into multi-year contracts for specific products which will limit their ability to increase crop rotations, or allow the time required to switch farming systems.

Actions the Government can take to encourage resilient, low emissions farming practices include:

1. Reduce risk and accelerate the transition by:

- Promoting policy and regulatory changes that enable existing farms to pivot towards regenerative land and agriculture practices.
- Incorporating natural capital accounting in policy, government and regulatory decision-making to better account for the true costs and benefits of farming practices.
- Informing and educating consumers of seasonal food production and consumption and sustainable farming practices to reduce demand side risks and pressures.
- Working with processors, supermarkets and wholesalers to address systemic barriers, such as the conditions embedded in multi-year supply contracts.

2. Build the capacity of farmers and producers by:

- Providing farmers with on-farm training and mentoring to build literacy in climate adaptation, natural capital accounting, disaster risk reduction, regenerative agriculture and land management.
- Creating regional demonstration sites for regenerative practices and support on-farm field days.
- Investing in expert advisory services that provide practical support to farmers on adaptive practices.
- Incentivising greater collaboration between farmers and researchers regarding ecological changes and impacts on farming practices to develop innovative and practical solutions.
- Promoting the development of socio-technological solutions to reduce emissions and sequester carbon in the agricultural sector. Examples include the installation of renewable energy on farms, and new approaches to vegetation management to reduce clearing and improve soil carbon.

3. Support farmers to lead adaptation efforts by:

- Creating investment mechanisms that support farmers who prioritise regenerative ecological outcomes.
- Supporting the creation of community-led, regionally-based food and agriculture transition plans, underpinned by a regenerative, just, and resilient outcomes framework.
- Providing incentives and support to accelerate adaptation of agricultural practices that improve environmental conditions and reduce emissions in line with climate targets and timeframes.

- Incentivising efforts to enhance, measure and value natural capital.
- Showcasing the opportunities for a new skilled workforce in agriculture.

### First Nations Practices

As traditional custodians of the land, Australia's First Nations communities can play a key role in addressing both the biodiversity and climate crises.<sup>8</sup> However they are often excluded from decisions regarding land use, adaptation, ecosystem protection and management and climate mitigation,<sup>9</sup> particularly over land they do not have direct access to. Failure to involve First Nations communities not only misses opportunities to improve practices and outcomes but ignores the acknowledged rights and the cultural links that communities have with local ecosystems, both as a source of livelihoods and identity. Merging First Nations biocultural knowledges and Western knowledge through a respectful collaboration can contribute to conservation and regeneration efforts. In turn, it would provide First Nations communities with the possibility of meaningful reconnection and connection to Country, offering a range of potential economic, employment, self-governance and well-being opportunities.

To support greater involvement and partnership with First Nations communities, the Government can play a role in:

- Ensuring national policies, regulations and frameworks emphasise the need for, and outline expectations of, meaningful First Nations engagement.
- Endorsing traditional management practices in Government policy.
- Taking a place-based approach to engagement with Traditional Owners.
- Investing and creating more opportunities for Indigenous-led management. For example, strengthen and expand Caring for Country programs (ranger groups, Indigenous Protected Areas, co-management arrangements, etc.)

### Australia's Carbon Market

Currently the Australian Government supports agriculture and land sector emissions reduction activities through a scheme using Australian Carbon Credit Units (ACCUs), which can be sold or traded. Australia's climate change strategy heavily relies on these credits. While ACCUs can provide an additional income stream for landholders, relying on offsets without concentrating on phasing out

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<sup>8</sup> Seddon N, Smith A, Smith P, et al. 2021, *Getting the message right on nature-based solutions to climate change*. Global Change Biology; <https://doi.org/10.1111/gcb.15513>

<sup>9</sup> Bayrak, M.M.; Marafa, L.M. 2016, *Ten Years of REDD+: A Critical Review of the Impact of REDD+ on Forest-Dependent Communities*. Sustainability; <https://doi.org/10.3390/su8070620>

fossil fuels will not support emissions reductions at the speed required to limit global warming and may instead inadvertently lead to catastrophic climate consequences.<sup>10</sup>

Research conducted by The Australia Institute<sup>11</sup> and Australian National University and the University of New South Wales<sup>12</sup> has found that:

- 75 per cent of ACCUs do not result in genuine emissions reductions or are not considered "additional."
- "Avoided deforestation" projects, which account for 1 in 5 carbon credits in Australia, do not genuinely contribute to emissions reduction.
- In many cases, credits have been issued for protecting areas that were never at risk of being cleared.
- Amongst "human-induced regeneration" projects that allow cleared native forests to regrow, it's been found that the overall forest area had not increased. Furthermore, credits were being distributed for land that was never cleared in the first place. In 59 of these projects, the amount of forest had actually decreased. Despite this, these projects still received 8.2 million carbon credits, valued at over \$100 million.

To ensure carbon credits genuinely contribute to emissions reduction and avoidance rather than offsetting between projects, improvements to the current system could include:

- Implementation of integrity criteria to guarantee that any emissions reductions are authentic, permanent, and would not have occurred otherwise.
- Limiting the number of carbon credits to ensure emissions are reduced to meet targets.
- Incorporating all findings and recommendations from the recent Chubb Review of Australia Carbon Credit Units.<sup>13</sup>

In addition to concerns with the integrity of the system, the complexity of the carbon market creates barriers to entry for small projects, farms, First Nations communities and many other landholders. Knowledge, skill, access to capital, participation costs, long contract periods, and time to develop

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<sup>10</sup>The Australia Institute, 2023, *The Problem with Carbon Credits and Offsets Explained*; <https://australiainstitute.org.au/post/carbon-credits-and-offsets-explained/>

<sup>11</sup> Hemming P, Merzian R, Schoo A, 2021, *Questionable Integrity: Non-additionality in the Emission Reduction Fund's avoided deforestation method*; The Australia Institute, [https://australiainstitute.org.au/wp-content/uploads/2021/09/ACF-Aust-Institute\\_integrity-avoided\\_deforestation\\_report\\_FINAL\\_WEB.pdf](https://australiainstitute.org.au/wp-content/uploads/2021/09/ACF-Aust-Institute_integrity-avoided_deforestation_report_FINAL_WEB.pdf)

<sup>12</sup> Macintosh A, Butler D, Evans M, Ansell D, Waschka M, 2022, *Fixing the Integrity Problems with Australia's Carbon Market*, Australian National University, University of New South Wales, [https://lighterfootprints.org/wp-content/uploads/short\\_erf\\_reform\\_june\\_2022\\_final.pdf](https://lighterfootprints.org/wp-content/uploads/short_erf_reform_june_2022_final.pdf)

Australian National University, 2022, *Australia's carbon market a 'fraud on the environment'* <https://law.anu.edu.au/news-and-events/news/australias-carbon-market-fraud-environment>

Macintosh A, Butler D, 2023, *The unsafe Safeguard Mechanism: how carbon credits could blow up Australia's main climate policy*, Australian National University; <https://iceds.anu.edu.au/news-events/news/unsafe-safeguard-mechanism-how-carbon-credits-could-blow-australia%E2%80%99s-main-climate>

<sup>13</sup> Department of Climate Change, Energy, the Environment and Water, 2023, *Independent Review of Australian Carbon Credit Units*; <https://www.dcceew.gov.au/climate-change/emissions-reduction/independent-review-accus>

carbon projects can make the system prohibitive for small-scale sequestration and avoided emissions projects.

Currently, there is only one method available for smaller landscapes and the process for aggregating small projects using the same abatement method is complex. The system also provides crediting periods between 25 and 100 years. Many farmers may be cautious of locking their land into certain processes or projects for this amount of time. Furthermore, farmers already practising some of the methods for improving soil carbon (e.g. no tillage and stubble retention) in their baseline period will be ineligible to receive carbon offset benefits for this in the future.

Barriers such as these highlight challenges relating to equity and the governance of the carbon market. When coupled with low-integrity carbon projects, these issues undermine decarbonisation efforts in the agriculture and land sector. To address issues of equity and governance, entry-level emissions reductions pathways for smaller projects could be created, including facilitating the aggregation of projects across catchments, landscapes and seascapes.

Providing political and regulatory certainty and certainty in the ability to participate in and benefit from the carbon market may also increase adoption of practices to sequester carbon and reduce emissions.

Actions the Government can take to improve the equity of the carbon market and its contribution to the emissions reduction include:

- Ensure active involvement of local and First Nations' communities in the design and management of these projects.
- Incorporate a clear method for evaluating cultural, social, biodiversity/habitat advantages of carbon storage and emission reductions initiatives.
- Allocate resources towards affordable measurements and technologies for measuring carbon, particularly for smaller organisations.
- Recognise methods and incentive schemes for urban and peri-urban projects and residential carbon sinks: green roof retrofitting, urban greening, residential re-vegetation, local food systems development, organic composting schemes, etc.
- Invest and develop community-based and Indigenous-led emissions reduction and carbon sequestration projects.
- Invest in and streamline funding for projects that empower local communities to engage with carbon-habitat-biodiversity projects for their local landscapes.

### Demand Side Changes

While many activities to reduce emissions and support climate resilience and adaptation in the agriculture and land sector are through the production and supply of goods, there are also opportunities on the demand side.



As consumers of agricultural goods, the broader population has a responsibility to take action where possible to support emissions reduction. By sharing the responsibility of emissions reductions amongst all stakeholders involved, it can help to decrease the pressure and cost on farmers and landholders. Additionally, all Australians will benefit from reduced emissions and stronger environmental systems, not just those working in the agriculture and land sector.

Some of the ways in which consumers can support emissions reduction in the agricultural and land sector include:

- Reducing food waste at a household and system level. 7.6 million tonnes of food across the entire food supply chain is wasted, accounting for 3 per cent of Australia's annual greenhouse gas emissions.<sup>14</sup>
- Recycling and reusing waste and bi-products through circular economy approaches.
- Driving demand for products that are made from recycled, upcycled, waste products or composite materials and/or low carbon supply chains.
- Promoting plant-rich diet lifestyle options.
- Reducing consumption of emissions-intensive proteins (e.g. meat, dairy) and/or adopting cultured proteins from low-emission sources.<sup>16</sup>
- Buying regional products with a short farm to table journey, and building knowledge of products that adopt low-emission and regenerative agricultural practices.
- Scaling up revegetation and conservation activities on publicly managed land.
- Being sensitive to natural assets and ecosystems when accessing parks and forests.
- Managing risk on private properties (e.g. bushfire) and leading conservation and regeneration activities on private land.

These actions will require improving the knowledge and awareness of consumers and supporting behavioural changes at the individual, community and institutional level. As with building support and understanding of the energy transition, shifting consumer attitudes and behaviours will take time and will require many stakeholders working together.

For behavioural change to translated into action, further practical support and financial investment is required to support the enterprises and supply chains needed to meet the demand for new products. This includes support for the development of food hubs, incubator programs and social enterprises, new transportation and supply chain development, and equipment and facilities to enable circular economy approaches and local value adding, processing and manufacturing activities.

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<sup>14</sup> Department of Climate Change, Energy, the Environment and Water, *Reducing Australia's Food Waste*  
<https://www.dcceew.gov.au/environment/protection/waste/food-waste>

Australia's agriculture and land sector plays an important role in supporting Australian families and the economy. The Government's Agriculture and Land Sectoral Plan can support the sector to be able to continue with this role into the future. A holistic approach to emissions reduction and resilience, looking at the impacts of climate change, biodiversity, and land and farm management, can support better environmental, economic and social outcomes for all.

There are many opportunities to build resilience and adaptability in the sector alongside reducing emissions. To achieve this the sector could benefit from clear direction, targeted actions and supporting resources.

We welcome the opportunity to engage further on this issue. Please get in contact if you have any questions about this submission.

Kind regards,



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