

Landcare NSW Incorporated

ABN 24 958 819 359

Unit 7 | 56 Church Avenue | Mascot NSW 2020

T: 02 8339 4816

administration@landcarensw.org.au

www.landcarensw.org.au



Department of Agriculture, Fisheries and Forestry



11 January 2024

DAFF 2023, Agriculture, land and emissions: discussion paper, Department of Agriculture, Fisheries and Forestry, Canberra, October. CC BY 4.0. (pp37) – Response from Landcare NSW

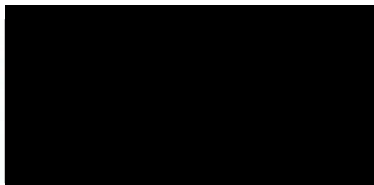
Dear Sir/ Madam,

The "*Agriculture and Land Sectoral Plan*" is a much-needed initiative by the Australian Government focusing on the agriculture and land sectors in the context of climate change. It acknowledges the impact of extreme weather and changing conditions on agriculture and land management, both of which are highly relevant to us in Landcare NSW, and the broader Landcare movement. The plan aims to support Australia's transition to a net zero economy by 2050, as part of its commitment to the Paris Agreement.

We appreciate the opportunity to respond to this initiative.

Please find attached responses to the questions raised in the Discussion Paper and feel free to call me on 0439 011 434 to discuss any aspect of the responses.

Yours sincerely,



Turlough Guerin | Chief Executive Officer

Landcare NSW Incorporated

**DAFF 2023, Agriculture, land and emissions: discussion paper, Department of Agriculture,
Fisheries and Forestry, Canberra, October. CC BY 4.0. (pp37)
– Responses from Landcare NSW**

Executive Summary

The submission reflects Landcare NSW's capabilities and aligns with broader strategies for emission reduction and sustainable practices in Australian agriculture and land management. Here are the key points for consideration by DAFF:

- *Landcare NSW has Capacity for Emissions Reduction Projects: Landcare NSW's extensive network, with over 370,000 labour hours from volunteers and staff, its coverage of 60% of the State's area, and 82 regionally-based Coordinators, highlights its potential capacity to implement emission reduction and carbon storage projects effectively. It also provides a suitable mechanism for the Australian Government to scale up an emissions reduction program nationally, harnessing the National Landcare Network. However, dedicated and additional funding would be required to ensure proper **management** of any carbon reduction initiative from the Australian Government to harness this existing state- and regional-level investment (made by the NSW Government into Landcare NSW).*
- *Community Engagement and Education is Vital: The submission emphasises the role of educational programs and workshops in raising awareness of climate change and sustainable land management practices (that promote the storage of carbon in farming systems). Landcare NSW has up to 60,000 volunteers, 3000 groups and runs more than 18,000 events each year, so the potential for reach by any proposed Australian Government emissions reduction programs, is significant.*
- *Networking and Collaborative Efforts Need to be Supported: The need for enhanced collaboration among farmers, government bodies, research institutions, and community groups to facilitate effective climate adaptation and mitigation strategies, is emphasised, given the scale and complexity of the emissions reduction task at hand. Collaboration is part of the DNA of community Landcare. Landcare NSW and its state counterparts should be recognised as an asset for the Australian Government to further invest in to increase capacity and build the delivery capacity of the movement. Landcare NSW has estimated that any investments in community Landcare organisations yield a return on investment of at least \$4-6 for each dollar invested.*

- *Regenerative Agriculture, Carbon Farming, Expanding the Climate-Smart Agriculture Program Are Examples of Programs to be Invested In: The submission underlines the importance of regenerative agriculture and carbon farming practices, which can contribute significantly to soil carbon increase and emissions reduction, and Landcare NSW is a suitable conduit for leveraging these emissions reduction initiatives (which already exist across the state and supported by Landcare groups in various ways). Other thematic programs that the Australian Government could fund are those that encourage the adoption of land farming systems and management practises that incentivise the retention of water in the landscape, and reward drought prevention (rather than treating symptoms of drought).*
- *Explore the Establishment of a National Landcare Fund: This would be a new fund dedicated to Landcare initiatives across Australia. This fund would ensure consistent, reliable funding for Landcare projects, independent of annual budget fluctuations or election commitments, thereby securing the long-term legacy of the Landcare movement initiated during the Bob Hawke era. The fund would be used for wholly or partially funding existing state and territory-based community-led Landcare Programs. As such, the leverage expected to be achieved by such a fund would be at least 4-6x for each dollar invested due to the ability of such community-led organisations to bring in new funding sources when they are funded adequately.*

Submission Details

The discussion paper on Agriculture and Land Emissions contains several questions to guide stakeholder discussion. Here is a list of the questions raised throughout the document. These questions aim to gather insights and opinions for developing effective strategies in the agriculture and land sectors, particularly in the context of emission reduction and sustainable practices. These responses align with the activities, capabilities, and challenges faced by Landcare NSW, reflecting the broader context of Australian agriculture, conservation, and land management strategies.

1. What are the opportunities to reduce emissions and build carbon stores in agriculture and the land? What are the main barriers to action?

Opportunities: With greater than 370,000 labour hours from volunteers and paid staff (based on the most recent annual data), Landcare NSW demonstrates significant potential capacity for implementing emission reduction projects. Many of the routine, day-to-day activities of Landcare in NSW include tree planting and interventions that add carbon to the soil, and from our analysis of the Landcare movement in NSW, it is evident that there is additional capacity to increase those activities that reduce emissions. Opportunities include regenerative agriculture practices, carbon farming (delivering training, workshops, providing access to land holders), and influencing the adoption of low emissions vehicles and equipment (refer to answer to Q3 for further details).

Barriers: Despite this extensive network, challenges include limited resources for **program management** (at the State, Regional, Network and Group levels), and to enable a broader reach of the movement, and the need for consistent engagement across the Landcare Groups. Duration of Government-funded programs are too short. Landcare-led initiatives require long-term investment horizons to ensure communities are adequately supported and are not over stretched to the detriment of all stakeholders. Others are lack of awareness and resistance to changing traditional practices by landowners and managers, and for Landcare NSW and for its members to be acknowledged as partners (not contractors) to reduce carbon emissions.

2. How can we progress emission reduction efforts whilst also building resilience and adapting to climate change?

Progressing emission reduction efforts while also building resilience and adapting to climate change within the Australian agricultural context, particularly through Landcare NSW and other Landcare programs, involves specific, measurable strategies:

Regenerative Agriculture Initiatives:

Landcare NSW promotes regenerative agriculture, which includes practices like no-till farming, cover cropping, and rotational grazing. Quantitatively, regenerative practices have shown potential in increasing soil carbon. For example, a shift to such practices can lead to an increase in soil carbon by about 0.5% on a portion of agricultural land, which can significantly offset Australia's greenhouse gas emissions.

Carbon Farming Projects:

Carbon farming, involves managing land to increase carbon sequestration. Through carbon farming initiatives, farmers can earn carbon credits for sequestering carbon, which are then tradable in markets or retained on-farm to support the farm's carbon strategy. This not only provides financial incentives but also contributes to emission reduction.

Both these initiatives can be enhanced in collaboration with our major NSW Government partner, NSW Local Land Services, an organisation that has and is making investments in these areas that will reduce sector emissions. Landcare NSW is well-positioned to support and leverage existing government investments (at all levels), and to ensure they are used efficiently.

Community Engagement and Education Programs:

Landcare NSW organises workshops and events to educate farmers and landholders about climate change, sustainable practices as well as in for the purposes of preparing landscapes and communities for extreme events. These programs focus on increasing awareness about the impacts of climate change and the importance of adopting sustainable land management practices. See for example our program called People Led Preparation funded by the NSW Reconstruction Authority (p37 of our recent Annual Report:

https://landcarensw.org.au/wp-content/uploads/2023/11/LNSW_Annual_Report_2022-2023_web.pdf).

Support for Research and Development:

Landcare NSW advocates for research into climate-resilient crops, fire-resistant plantings, and adaptive farming techniques.

Networking and Collaborative Efforts:

Encouraging collaboration and networking among farmers, government bodies, research institutions, and community groups is crucial for effective climate adaptation and mitigation strategies. Sharing knowledge and best practices through

these networks empowers local communities to take action against the causes and impacts of climate change.

3. Are there initiatives or innovative programs underway that could be applied or expanded on at a national scale?

Regenerative Agriculture Programs:

With over 60,000 volunteers across NSW and 3,000 Landcare groups (of which approximately 1800 are members of the peak body, Landcare NSW), these extensive networks can significantly amplify the impact of regenerative agriculture initiatives. Nationally, there are estimated to be 160,000 volunteers and 6,000 groups.

Example: If each group implements regenerative practices on a small portion of land, the cumulative effect on soil health and carbon sequestration across NSW can be substantial.

Carbon Farming Workshops and Training:

The presence of 82 Landcare Coordinators across the 11 NRM regions in NSW ensures that carbon farming workshops and training, and adaptation knowledge transfer, can be effectively distributed and tailored to regional needs.

Example: These coordinators could facilitate the adoption of carbon farming practices across diverse agricultural landscapes, potentially impacting a significant portion of the 50 million hectares covered by Landcare activities.

Community Engagement and Education Initiatives:

The vast number of Landcare volunteers and groups indicates a strong community engagement foundation, crucial for spreading knowledge on sustainable practices and climate change adaptation.

Example: With approximately 18,000 Landcare activities over four years (4000-5000 events per year), there's a considerable opportunity for educational outreach and community engagement in climate-smart agriculture.

Climate-Resilient Agriculture Research:

The scale of Landcare's reach, covering 60% of NSW, provides a broad base for implementing and testing climate-resilient agricultural research across various ecosystems and farming systems.

Example: Research findings can be quickly disseminated and applied through the extensive Landcare network, enhancing their practical impact.

Support Systems for Sustainable Farming:

The extensive network of Landcare volunteers, who contributed around 370,000 hours over a year, can be instrumental in providing support and advice to farmers transitioning to sustainable practices.

Example: This volunteer force can assist in implementing new farming techniques and technologies, directly impacting farm practices, and preparing landscapes and communities for extreme climate-related events across the state, and nationally.

Advocacy for Policy and Regulatory Support:

The collective strength of 3,000 Landcare groups provides a powerful voice for advocating sustainable farming policies and influencing the shape of regulations.

Example: Coordinated advocacy efforts could influence state-wide policies, leveraging the network's extensive coverage and impact.

Networking and Collaborative Efforts:

The sheer number of volunteers and activities underlines the potential of Landcare NSW in fostering networking and collaboration among farmers, researchers, and policymakers.

Example: Collaboration fostered through these networks can lead to the widespread adoption of innovative farming technologies and practices.

4. How can the Australian Government bring together existing effort and new initiatives into one coordinated plan?

To effectively consolidate existing efforts and new initiatives into a coordinated plan, the Australian Government can take a multi-pronged approach, incorporating insights from our discussions and the activities of organisations like Landcare NSW:

Centralised Coordination of the Landcare Movement:

The Australian Government could facilitate collaboration among various stakeholders, including government agencies, non-profits like Landcare NSW, agricultural businesses, research institutions, and community groups. This platform would be a hub for sharing information, best practices, and resources.

To bring together existing efforts and new initiatives into a coordinated plan, the Australian Government can leverage the structures and experiences of the National Landcare Network (NLN) and Landcare Australia. However, doing so presents unique challenges due to the distinct roles and scopes of these organisations.

National Landcare Network (NLN): As the peak representative body for community Landcare groups across Australia, NLN plays a crucial role in representing and supporting the community Landcare movement at the national level. NLN's structure, which includes representatives from each state and territory, facilitates a bottom-up approach, enabling community-driven solutions to local environmental challenges. This grassroots focus is essential for addressing diverse local needs but may present challenges in aligning with top-down government strategies or national policies.

Landcare Australia: This national not-for-profit organisation supports the Landcare community with funding, capacity-building, projects, networking, and promotion. Landcare Australia's activities, including various programs and partnerships, are instrumental in facilitating environmental and sustainable agriculture practices. However, the challenge lies in integrating these efforts with broader government strategies and ensuring alignment with other national initiatives.

To overcome these challenges and effectively bring together the efforts of NLN, Landcare Australia, and government initiatives, the Australian Government could:

- a) **Establish a Unified Framework:** Develop a framework that allows for collaboration and alignment between the top-down approaches of national policies and the bottom-up, community-driven initiatives of the Landcare movement.
- b) **Facilitate Regular Communication and Coordination:** Regular meetings and communication channels between NLN, Landcare Australia, and government representatives can help in aligning goals, sharing resources, and coordinating efforts.
- c) **Leverage Strengths of Each Entity:** Utilise the strengths of NLN in community engagement and localised solutions, and Landcare Australia's capabilities in funding, capacity-building, and national-scale projects.
- d) **Develop Integrated Programs:** Design programs that can be implemented both locally (through NLN and community groups) and nationally (through Landcare Australia), ensuring that local insights inform national strategies.
- e) **Support Data Sharing and Reporting:** Create systems for data sharing and reporting that can help in assessing the impact of Landcare activities and aligning them with national environmental goals.

Policy Alignment and Legislative Support:

Align national policies with regional and local initiatives to create a coherent strategy for emission reduction and sustainable land management. Enacting supportive legislation can provide incentives and remove barriers to implementation.

Funding and Resource Allocation:

See our response under Q9 (a new National Landcare Fund).

The purpose of the fund would be to strategically allocate resources to support both proven and innovative initiatives by leveraging state and territory investments in community Landcare. Utilising Landcare NSW's extensive network and activities, such as our 18,000 events annually (as an example), could enhance the impact of Australian Government programs.

Data-Driven Decision-Making:

Use data and insights from existing programs, like those from Landcare NSW, to inform policy and program design. This includes leveraging extensive data on labour hours, membership, and event data to identify successful strategies and areas requiring more target support (including by the Australian Government).

Capacity Building and Training:

Address challenges such as staff turnover, by investing in capacity building and training. This ensures that organisations and individuals have the necessary skills and knowledge for effective implementation and management of sustainable practices.

Community Engagement and Public Awareness:

Enhance community engagement and raise public awareness about sustainable land management and emission reduction. Expanding successful engagement models used by Landcare NSW could be a key strategy.

Integration of Technology and Innovation:

Promote the use of technology and innovation in agriculture and land management. This can include supporting research and development initiatives and encouraging the adoption of new technologies for efficiency and sustainability.

5. What are the most important options to be further adopted or supported looking in the short and the longer-term?

The most important options for Landcare NSW to adopt or support, both in the short and long term, can be drawn from our discussions and relevant information about Landcare initiatives:

Short-Term Options:

Enhanced Community Engagement: Focusing on increasing participation and awareness at the local level. This includes organising more community events, workshops, and programs to engage various groups, including youth and indigenous communities.

Support for Small-Scale Projects: Encouraging and funding small-scale, local projects that have immediate impacts. This could range from local clean-up campaigns to small reforestation, biodiversity conservation, or sustainable agriculture projects.

Training and Education Programs: Offering more training and educational resources to farmers and land managers on sustainable practices, soil health, and carbon sequestration techniques.

Promoting Regenerative Agriculture Practices: Encouraging practices that improve soil health and increase biodiversity, can have immediate benefits for the ecosystem and local communities.

Long-Term Options:

Integrated Landscape Management: Developing and implementing strategies for integrated landscape management that align with broader environmental goals and sustainable development.

Research and Development: Investing in and supporting long-term research projects focused on sustainable agriculture, climate resilience, and innovative land management practices.

Policy Advocacy and Partnerships: Working with government bodies at various levels to advocate for policies that support sustainable land management and environmental conservation. This includes forming partnerships with other environmental and agricultural organisations for broader impact.

Technology Integration: Leveraging technology for monitoring environmental changes, improving agricultural practices, and enhancing data collection and analysis for better decision-making.

National Coordination and Collaboration: Strengthening the ties between various Landcare groups across Australia to share knowledge, resources, and best practices. This could involve developing a national strategy or framework for environmental management and sustainable agriculture.

6. What are the practical solutions to increase uptake?

To increase the uptake of Landcare initiatives and practices, particularly under the framework of Landcare NSW, the Australian Government, and relevant organisations can consider the following practical solutions. These solutions, drawn from insights in our discussions and the discussion paper, aim to foster a sustainable and environmentally conscious approach to land management in alignment with Landcare NSW's objectives and the broader goals of the Australian Government's environmental strategy:

Collaboration and Partnership: Facilitating partnerships between government, industry, and community groups, including Landcare networks, to share resources, knowledge, and best practices.

Financial Incentives and Funding: Offering grants, subsidies, or financial incentives to farmers and land managers to adopt sustainable practices.

Enhanced Communication and Outreach: Strengthening efforts to communicate the benefits and techniques of sustainable land management and environmental conservation through targeted outreach programs.

Education and Training: Providing comprehensive education and training programs to equip land managers and community members with the necessary skills and knowledge.

Support for Research and Innovation: Investing in research and development of new sustainable agricultural practices and technologies.

Policy and Regulatory Support: Implementing supportive policies and regulatory frameworks that encourage sustainable practices and reduce barriers to adoption.

7. How do you see the agriculture and land sectors contributing over the medium and longer-term? What are the opportunities to deliver emission reductions in parallel with other goals?

The agriculture and land sectors, particularly within the framework of Landcare NSW and similar community-led conservation and sustainable farming initiatives, are positioned to make substantial contributions over the medium and longer term in several key areas. These contributions align with broader goals of environmental sustainability, biodiversity conservation, and climate change mitigation. By focusing on these “emissions-linked” areas (or activities), the agriculture and land sectors can not only contribute significantly to emission reductions but also achieve other important environmental and social goals. Landcare NSW’s activities and initiatives provide practical examples of how these contributions can be realised, as illustrated by way of highlight below:

Sustainable Agricultural Practices: In the medium to long term, adopting sustainable agricultural practices will be crucial. This includes regenerative agriculture, which enhances soil health, increases biodiversity and improves water management. These practices not only reduce emissions but also boost the resilience of agricultural systems against climate change impacts.

Carbon Sequestration: Both sectors can significantly contribute to carbon sequestration. Practices like afforestation, reforestation, and soil carbon enhancement can serve as natural carbon sinks, offsetting greenhouse gas emissions. Landcare initiatives often focus on these areas, providing a practical pathway for carbon storage.

Biodiversity Conservation and Restoration: Biodiversity conservation is another critical long-term goal. Sustainable land management practices help restore and maintain natural habitats, which is vital for preserving biodiversity. This aligns with Landcare's objectives of protecting and enhancing the natural environment.

Adaptation to Climate Change: In the face of changing climate conditions, both sectors can adapt by implementing climate-resilient farming techniques, diversifying crops, and managing water resources efficiently. This not only reduces the vulnerability of these sectors to climate impacts but also contributes to overall ecosystem resilience.

Research and Development: Continued investment in research and development will be essential for innovating new ways to improve sustainability in these sectors. This includes developing new agricultural technologies, sustainable land management practices, and strategies for efficient resource use.

Education and Community Engagement: Over the longer term, education and community engagement become pivotal. Raising awareness about the importance of sustainable practices and encouraging community participation in environmental initiatives are areas where organisations like Landcare NSW can make a significant impact.

Policy Advocacy and Alignment with National Goals: The agriculture and land sectors can influence environmental policy by advocating for sustainable practices and aligning their goals with national and international environmental targets, such as those related to climate change mitigation and sustainable development.

8. How can the Australian Government better support agriculture and land sectors to drive innovation, build capacity, and ensure the system enables emissions reduction?

The Australian Government can support agriculture and land sectors to drive innovation, build capacity, and ensure emissions reduction through several approaches. To provide concrete examples of how the Australian Government can better support the agriculture and land sectors for innovation, capacity building, and emissions reduction, consider the successes and initiatives of Landcare NSW and other Landcare entities:

Financial Support and Incentives: Landcare NSW's projects benefit from financial support, particularly for management of these projects (or programs). Australian Government grants or incentives can help scale such projects, allowing for broader implementation of sustainable practices however the costs of managing these projects and programs must be met somehow. Without full funding of initiatives that reduce carbon emissions, over the required timeframes, the projects run the risk of causing burnout of the Landcare participants. In addition, funding cycles of less than 5 years represent a problem for community-led organisations such as Landcare NSW, which need certainty for employment contracts of program participants if the full value of funding is to be realised.

Collaborative Projects: Landcare NSW's success often comes from collaborative efforts, like working with local communities for reforestation projects. Government support can facilitate more of these collaborative projects, bringing together different stakeholders for common goals.

Training and Education Enhancement: Landcare NSW often conducts workshops and training sessions for sustainable practices. Government funding can expand these educational programs, making them more accessible to a wider range of farmers and land managers.

Community Engagement Initiatives: Many Landcare NSW projects, like community-led conservation efforts, have been successful due to strong community engagement. Government initiatives can focus on enhancing community involvement in sustainable land management.

Technology Adoption Programs: Landcare NSW's initiatives often involve the use of new technologies for sustainable farming. The government can support the wider adoption of such technologies, for example, through subsidies or training programs.

Research and Development Support: Landcare NSW has been involved in projects that focus on sustainable farming and land management practices. For example, initiatives in regenerative agriculture have shown promise in improving soil health and biodiversity. Government support for such research can help scale these successes.

Policy Frameworks Aligning with Landcare Goals: The government can align policies with the goals of Landcare initiatives, such as supporting biodiversity conservation, which has been a focus of many Landcare projects.

Monitoring and Evaluation Systems: Landcare NSW often tracks the outcomes of its projects. The government can implement similar monitoring systems to evaluate the effectiveness of its initiatives and make informed decisions.

9. What new initiatives could the Australian Government design that would support emissions reduction and carbon storage in agriculture and land and help ensure a productive, profitable, resilient, and sustainable future for these sectors?

Landcare in Australia plays a critical role in shaping the nation's approach to sustainable agriculture, environmental conservation, and land management. As a grassroots movement, Landcare has been pivotal in fostering community engagement, promoting innovative land stewardship practices, and driving significant progress in ecological restoration and climate resilience across diverse landscapes. Its broad network of volunteers and extensive reach into rural and urban communities alike make it an ideal vehicle for driving change and implementing new strategies for a sustainable future.

In this context, Landcare NSW stands out as a particularly effective agent for piloting national program concepts. With its deep-rooted experience in managing diverse environmental projects and its proven track record of successful initiatives, Landcare NSW embodies the ethos of community-led, practical environmental action. By piloting national programs, Landcare NSW can leverage its extensive knowledge, expertise, and community connections to test, refine, and demonstrate the effectiveness of innovative approaches in emissions reduction, carbon storage, and sustainable land management. This would not only bolster the effectiveness of such programs at a national level but also reinforce the integral role of Landcare in shaping Australia's environmental and agricultural policies.

These initiatives would not only support emissions reduction and carbon storage but also contribute to a more sustainable, resilient, and profitable future for Australian agriculture and land sectors. The National Landcare Fund, in particular, would be pivotal in ensuring the long-term viability and impact of these efforts.

Explore the Establishment of a National Landcare Fund: This would be a new fund dedicated to Landcare initiatives across Australia, with the capacity to provide \$100-150 million AUD annually (est, size of \$2.5-3 bn). This fund would ensure consistent, reliable funding for Landcare projects, independent of annual budget fluctuations or election commitments, thereby securing the long-term legacy of the Landcare movement initiated during the Bob Hawke era. The fund would be used for wholly or partially funding existing state and territory-based community-led Landcare

Programs. As such, the leverage expected to be achieved by such a fund would be at least 4-6x for each dollar invested due to the ability of such community-led organisations to bring in new funding sources when they are funded adequately (see comments under “Barriers” in Q1). To establish the National Landcare Fund, the Australian Government could explore several funding options with the support of existing Landcare capabilities. One potential source is a portion of the revenue generated from environmental levies, such as a carbon or biodiversity levy on industries with significant environmental footprints, which would require extensive consultation with industry and other respective land managers. Another approach could involve reallocating a fraction of existing agricultural or environmental funding (from the Australian Treasury), ensuring that the investment aligns with the Australian Government’s goals of sustainable land management and climate change mitigation. Additionally, the Australian Government could consider public-private partnerships, where corporations and private entities could contribute to the fund as part of their corporate social responsibility (or ESG) initiatives. The establishment of this fund would signify a commitment to the enduring legacy of Landcare, ensuring stable and substantial financial support for its vital work in environmental stewardship and sustainable agriculture across Australia, and ensuring the Australian Government meets the expected outcomes outlined in the Discussion Paper. While scoping of such a new fund would require considerable work to get to the business case stage, Landcare NSW is well-placed to undertake such a task in conjunction with other community Landcare organisations around the country through the National Landcare Network.

Expand the Climate Smart Agriculture Program: Implement a program that rewards farmers for adopting climate-resilient and low-emission farming practices. While the existing Climate Smart Agriculture Program, funded by the Australian Government through the Natural Heritage Trust (NHT), is making significant strides in promoting climate-smart, sustainable agriculture, there are areas where expansion and enhancement are necessary. Recognising the already impactful efforts, such as grants for innovation, capacity building, and soil health, future program expansions should focus on areas not currently covered extensively by the program. These could include specific incentives for water-saving techniques, especially in arid regions, and the integration of renewable energy systems directly into farming operations. The program could also benefit from funding targeted towards the development and adoption of carbon-efficient farming methods and low-emissions farming equipment. Additionally, there's a need for a more pronounced focus on incentivising the retention of water in landscapes, thus aiding in drought prevention and mitigation, rather than solely addressing the symptoms of drought. By funding such initiatives, the Australian Government could further encourage the adoption of comprehensive land management and farming systems that not only address immediate agricultural needs but also contribute to long-term environmental sustainability and resilience against climate change.

National Landcare Volunteer Program: Set up a national program to recruit, train, and deploy volunteers across Australia to support Landcare projects, akin to a national service but focused on environmental conservation and sustainable agriculture.

Eco-Tourism and Landcare Partnership: Foster partnerships between the Landcare movement and the eco-tourism sector to create sustainable tourism experiences that contribute to conservation efforts, while also enabling a revenue stream for re-investment into land conservation and enhanced mechanisms for reducing land sector emissions.

Landcare Research Collaborative Grants: Create collaborative research grants to encourage partnerships between universities, government research bodies, and Landcare groups, focusing on biodiversity enhancement, emission reduction, and land productivity improvement.

10. Is there a role for the Australian Government in addressing the concern of a consistent and trusted approach for assessing and reporting emissions, and how can producers and land managers be supported?

The Australian Government could play a significant role in establishing a consistent and trusted approach for assessing and reporting emissions in the agriculture and land sectors. This involves developing standardised measurement and reporting protocols that are reliable and widely accepted. To support producers and land managers, the Australian Government can offer training and resources to help them understand and implement these protocols, harnessing the Landcare network to do this. Additionally, providing access to tools and technology that facilitate accurate measurement and reporting could greatly assist in this process. This approach would align with the strategies and initiatives highlighted in the discussion paper, enhancing the overall effectiveness of emissions reduction efforts in these sectors. Consideration should be made as to how the Landcare community can be encouraged to be supporters of any sector approach to ensure maximum adoption and capture of emissions reduction activities. Key considerations are as follows:

Standardisation of Measurement Methods: Developing consistent and universally accepted methodologies for measuring greenhouse gas emissions across various agricultural practices and land uses.

Transparency and Accessibility: Ensuring the emissions reporting system is transparent, with guidelines that are clear and accessible to all stakeholders, including small landholders and farmers.

Integration with Existing Frameworks: Aligning the emissions reporting system with existing national and international frameworks to ensure compatibility and facilitate comparisons.

Technology Utilisation: Leveraging technology for accurate data collection and analysis, such as remote sensing, satellite imagery, and other advanced tools for precise measurement.

Stakeholder Engagement: Involving a range of stakeholders, including farmers, land managers, industry experts, and environmental groups, in the development and implementation of the reporting system.

Compliance and Verification Mechanisms: Implementing robust verification and compliance mechanisms to ensure the integrity and accuracy of the reported data.

Flexibility and Adaptability: Designing the system to be flexible and adaptable, accommodating new scientific findings, technological advancements, and evolving agricultural practices.

Capacity Building and Support: Providing training and support to stakeholders, particularly at the grassroots level, to ensure they have the necessary skills and resources for effective participation in the emissions reporting process.

Incentive Structures: Incorporating incentive mechanisms, such as carbon credits or financial benefits, to encourage participation and compliance among those who successfully reduce emissions.

Regular Review and Update: Periodically reviewing and updating the system to reflect changes in the sector, and technological advancements.

11. What skills, knowledge, and capabilities do you think producers and land managers need to implement change? What information and data would help them make decisions about emissions reductions and sustainable land management in the short and longer term?

To effectively implement change and make informed decisions about emissions reductions and sustainable land management, producers and land managers need a combination of skills, knowledge, and capabilities, as highlighted in the discussion paper:

Community Engagement and Leadership: Abilities to engage with and lead community initiatives, fostering collective action towards sustainable practices.

Understanding of Emissions and Sustainable Practices: Knowledge of how various agricultural practices impact emissions and the environment, and familiarity with sustainable techniques that can reduce emissions.

Technical Skills: Abilities related to the application of new technologies and practices that support emissions reduction, such as precision agriculture, efficient water management, and soil health monitoring. Understanding the concept of co-benefits (e.g. gaining emissions reductions and biodiversity gains) will be critical.

Adaptation and Resilience Building: Skills in adapting to changing environmental conditions and building resilience against climate-related impacts. In a Landcare context, knowing optimal parameters for undertaking Landcare activities to minimise the impacts of extreme weather events.

Data Analysis and Interpretation: Competence in interpreting data related to climate, soil health, and emissions, and many other parameters, which is crucial for making informed decisions.

Awareness of Policy and Regulatory Frameworks: Understanding of government policies, subsidies, and regulations related to sustainable farming, land conservation, and emissions reduction.

Financial Planning and Management: Skills in economic planning and management, particularly related to investments in sustainable practices and accessing government incentives or carbon markets, and the contracts that will be required for entering into these markets.

We note that the Landcare community is well-placed to support the Australian Government to deliver these skills.