

Program Snapshot

This document provides a high-level summary of the aims, methods, outputs, and timeline of the *Farming for the Future* program.

September 2023

Farming for the Future

What is Farming for the Future?

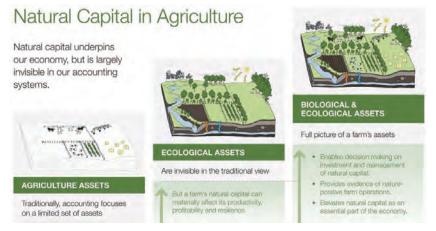
Farming for the Future is a public good research and change activation program that is building the first national-scale evidence base of on-farm natural capital and its relationship to business performance on Australian farms.

We aim to embed natural capital in mainstream farm valuation and management practices by providing farmers with the data, practical support, and tools needed to measure their on-farm natural capital and manage it in ways that help build more productive, profitable, and climate-resilient businesses.

We also partner with an extensive network of stakeholders across the agriculture supply chain and financial services sector to understand the constraints and pathways to change, harmonise natural capital metrics and accounting frameworks, and ensure that farmers are involved in their design.

What is natural capital?

Agricultural natural capital is the living parts of the farm: ecological assets like air, water, soil, plants, and animals. It represents significant ecological and commercial value and can be accounted for alongside agricultural assets like land size, infrastructure, and livestock to provide a full picture of a farm's assets.



Research methods

Farming for the Future is conducting a national-scale study of Australian farms, beginning with a small pilot study of 130 livestock operations. It aims to build towards a sample of more than 1500 farms to create a dataset representing the national breadth of operation types and farm types, sizes and locations.

We partner with farmers and their advisors and accountants to collect financial, operational, production, and social and behavioural data. Natural capital data is recorded using a combination of remote sensing technology and field data gathered by expert field ecologists to capture the high quality, fine scale data about on-farm ecological health and biodiversity. We then work with leading academics to analyse this data, conduct peer review, and ensure the integrity of our methods and findings.

By engaging local firms to conduct our data collection activities, we aim to build local capability for natural capital management and accounting, minimise the time commitment for participating farmers and ensure that more than 70% of our funding is spent in the communities we work in.

Results and outputs

National-scale evidence base

Farming for the Future's research will provide a baseline for the condition of natural capital on Australia's agricultural landscapes and demonstrate the relationship between natural capital, and farm business and environmental performance.

Findings from our de-identified evidence base will be made publicly available to support:

- farmers to make informed decisions about adapting their management practices and investing in natural capital improvements amid changing climate and market conditions;
- businesses in the agriculture supply chain to empower farmers to optimise on-farm natural capital in response to capture shared supply chain opportunities; and
- policymakers to recognise and incentivise farm management strategies that promote biodiversity, and address climate change whilst also enabling productivity and profitability of the agricultural sector to be maintained.

Natural Capital Accounts

Participating farmers receive a detailed report of the natural capital of their farm and the environmental performance of the farm business. This will provide a baseline that can be updated in future. Reports will follow international standards for natural capital accounting to ensure they are widely accepted, recognised as being robust, and applicable to the widest possible suite of natural capital opportunities.

Natural Capital Benchmarking System

Participating farmers, farm advisors and research partners are invited to help design a Natural Capital Benchmarking System that will help them quantify, on an ongoing basis, the value that natural capital contributes to Australian agricultural businesses. This will identify the 'opportunity zone' for enhancing natural capital in ways that achieve better ecological <u>and</u> business performance outcomes.

This system can also be used to provide financial institutions and agricultural supply chains with data to help them reward farmers who are improving both on-farm natural capital and farm business performance.

Production measures	YieldsCarrying capacity	\uparrow	Farmer A Current position
Outcome indicators	 EBIT/DSE Gross Margin EBIT/ha/100mm rain ROAM 	Performance measure	"Opportunity zone"
Driver variables (e.g.)	 Animal health expenses/DSE Supplementary feed/DSE Pasture Costs/ 	Variability of perfo	3 4 5 6 ×
	DSE • Fertiliser costs/ha • Herbicide costs/ha	Joint private (& Farmers will make decisions that they	public) benefit ENABLERS
Natural Capital 'Asset' Value	\$/ha	believe best balance their production, landscapes, business outcomes and	 a. Ability to measure natural capital b. Trusted evidence and data to support the investment c c. Access to financial capital d. Access to advice, capability and resource (time)

Program timeline

The Farming for the Future research program will be delivered over four phases, consisting of a plausibility study, planning and strategy (Phase 1); research and data collection activities (Phases 2 to 3); transfer of the system to a long-term manager who will operate it as a public good asset to empower farmers (Phase 4).

The program has recently completed phase 2, which has involved research and benchmarking of approximately 130 farms in focus regions in NSW, Victoria, Tasmania, and southern Western Australia. This phase is a pilot study designed to develop a foundation for later phases. Outputs from will be published in late 2023.

Phase 2+ expands our research activities to include 400 livestock, cropping and mixed croppinggrazing farm enterprises across NSW, Victoria, Tasmania, Western Australia, South Australia, and Queensland. These will be representative of farms across the full extent of Australia's wheat-sheep belt. We are currently seeking co-funding for Phase 2+ and aim to publish outputs from Phase 2+ in late-2024.

In Phase 3, we will expand further to incorporate more than 1,500 farm businesses across all Australian states and territories. This phase will extend the program into other agricultural operation types and sectors.

Phase 4 will focus on completion of the research program, consolidation of program outputs, embedding natural capital benchmarking in mainstream farm management and reporting, and transfer of the program assets to a long-term owner to provide ongoing development of and access to the system.



Farming for the Future timeline

Who is behind Farming for the Future?

Farming for the Future is an industry-led program established by the Macdoch Foundation, a philanthropic organisation dedicated to the resilience of people and the planet. Our activities are supported by funding from a range of supporters, including philanthropic organisations, government, companies in the agricultural supply chain, financial services and industry bodies.

Dr Sue Ogilvy (Program Director) and Dr Liz Heagney (Research Director) are experienced research, policy and adoption practitioners employed by the Macdoch Foundation to lead the program. They work with an extensive network of farm advisors, natural resource management experts, scientists and academics to conduct Farming for the Future's on-the-ground data collection, analysis and generate program outputs.

Farming for the Future's leadership council includes representatives from business, government, philanthropy and industry. Its research program is supported by a Research Adoption Advisory Committee chaired by the National Farmers Federation.

Farming for the Future is grateful to the farmers who have participated in the study, as well as the farm advisors, accountants, natural resource management partners and ecologists who have worked alongside us in this project. The research has been greatly improved and iterated thanks their feedback and suggestions.

Farming for the Future also acknowledges the traditional owners of the lands on which we perform our research and their continuing connection to land, waters and community, and pay our respects to them.



Cattle grazing. Photo credit Imogen Semmler Bush Heritage Australia.