

LAND

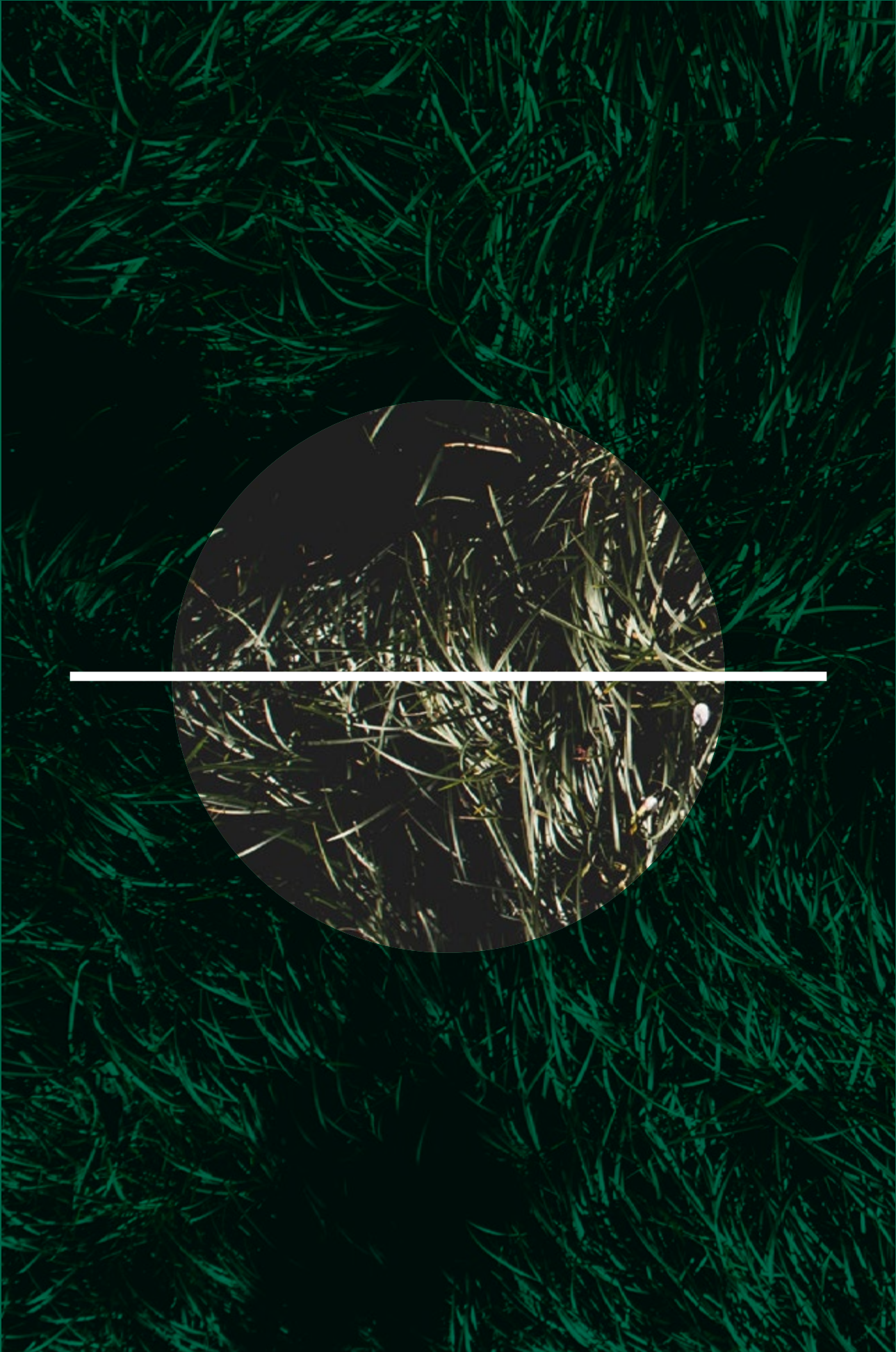
USE

FUTURES

OCTOBER
2019

Natural Capital Roadmap

A roadmap for enabling
sustainable land use transitions
through measurement and
valuation of natural capital



Acknowledgements

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We could not have produced this Roadmap without the input of these contributors, however ClimateWorks takes full responsibility for the content, including any errors or omissions.

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About ClimateWorks Australia



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This Roadmap was developed by ClimateWorks Australia. ClimateWorks Australia is an expert, independent adviser, committed to helping Australia, South East Asia and the Pacific region transition to net zero emissions by 2050.

It was co-founded through a partnership between Monash University and The Myer Foundation and works within the Monash Sustainable Development Institute.

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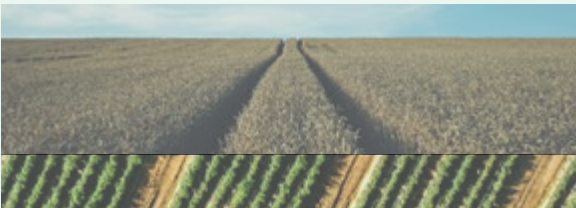
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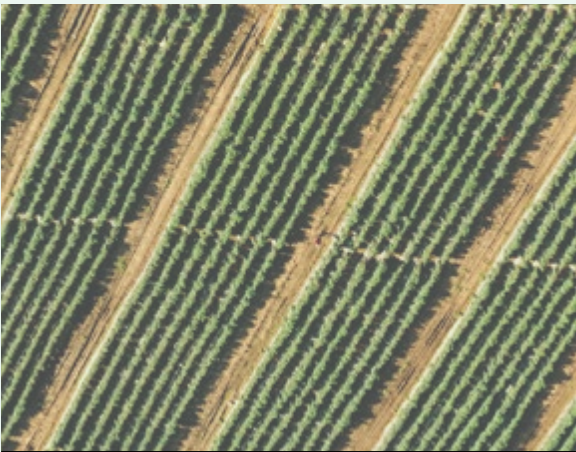
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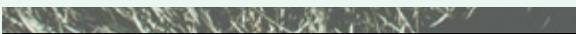
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Context

Australia's food and land use system faces a storm of converging pressures. The world's population is growing, expected to reach close to 10 billion by 2050, and will have growing and changing demands for food and fibre. At the same time, the accelerating impacts of climate change present major risks for farming – without adaptive action climate change could reduce agricultural productivity and farmer profitability by up to 40-60 per cent by 2060ⁱ.

Meanwhile, competing demands could reduce the amount of land available for food production. This includes demands for timber production, bioenergy, and urban and industrial development. Climate change will also have profound impacts on natural systems². There is an urgent need for land management changes to reduce emissions, sequester carbon in soils, trees and other vegetation, and to protect, restore and build resilience of natural systems. How will we meet these competing demands on a limited land resource?

Producers of food, fibre and timber manage more than half of Australia's landmass, and are therefore critical to any future change in land use³.

Awareness and adoption of sustainable practices is increasing in the face of climate risks, unreliable weather patterns, competition for water, consumer concerns about health, environmental and animal welfare impacts of farming, and increasing accountability demands from governments. Indeed, some of the most innovative and inspiring examples of sustainable food production and land use originate in Australia.

The finance sector is also beginning to shift, with investment in sustainable land use increasing eightfold globally in the decade to 2015⁴, and \$4.5 trillion annual global business opportunities from investment in sustainable food and land use identified by 2030⁵.

This momentum is positive. However, a barrier to improving the sustainability of land use is

the immaturity of tools and systems to enable adequate, consistent measurement of 'natural capital'. These tools are a way to value the environment and integrate this value as part of land management, financial and policy decision-making.

ABOUT THIS ROADMAP

This Roadmap focuses on embedding the concept of natural capital, and specifically the measurement and valuation of environmental 'assets' as an important (but insufficient) enabler of increasing sustainable land use.

The Roadmap outlines nine action areas for improving the measurement and valuation of natural capital in Australia. For each of these, it identifies next steps and key actors. This is intended to guide and encourage implementation of these actions, and provide a framework against which activity and gaps in activity can be tracked and coordination improved.

Natural capital is not a new concept. There is an extensive knowledge base and capability amongst farmers and their representatives, government, the research community, and intermediaries including natural resource management (NRM) organisations.



Natural Capital Summit participant responses to the question 'Where did you travel from to be here?'

ⁱ Study conducted for the Commonwealth Bank by Energetics, showing falls in farm profitability under a high emissions scenario (Intergovernmental Panel on Climate Change Representative Concentration Pathway 8.5) prior to adaptive action being taken¹.

This Roadmap is intended to support the acceleration, expansion, alignment, coordination, resourcing and implementation of these organisations, and existing and emerging initiatives.

With this in mind, the Roadmap synthesises the ideas of over 300 leaders in farming, forestry, natural resource management, conservation, finance, policy, research and government. These ideas were collected in a series of workshops held in capital cities around Australia in early 2019. The outputs provided the basis for the Natural Capital Summit, run as part of Climate Week QLD in June 2019.

The summit was designed to be 'action focused' – participants worked collaboratively over two days on the challenges and opportunities for integrating natural capital thinking into decision-making in government, business and research.

Participants working on project ideas on day two of the summit



Left to right: Verity Morgan-Schmidt (Farmers for Climate Action), Nadia Campbell (Goondicum Pastoral Co), Chris Sounness (Birchip Cropping Group), and Peter Thompson (Echo Hills Farm) during the panel, 'Managing natural capital on the ground'

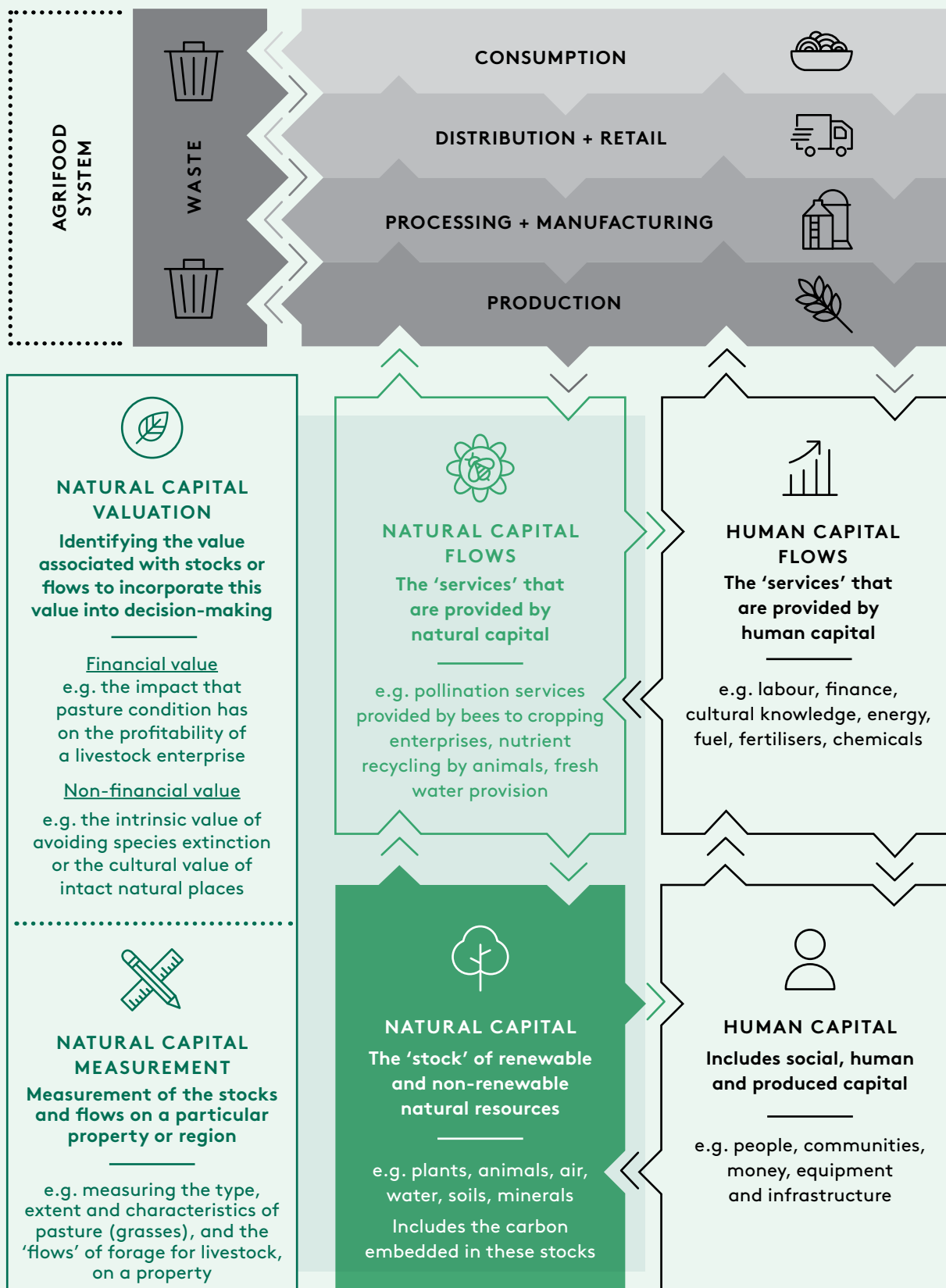


"...the Roadmap synthesises the ideas of over 300 leaders in farming, forestry, natural resource management, conservation, finance, policy, research and government."

Left to right: Anna Skarbek (ClimateWorks Australia), Libby Pinkard (CSIRO), James Bentley (NAB), Jack Holden (Fonterra), Georgie Somerset (AgForce), Francisco Ascui (University of Tasmania), Sue Ogilvy (ANU Fenner School of Environment and Society) during the panel, 'Natural Capital Perspectives'



What is natural capital?





"Ecosystem goods and services from natural capital underpin productivity and the global economy."⁶

Vision for natural capital

Humans are dependent on natural systems. These systems provide clean water and air, fertile soils, a stable climate and other essential conditions that underpin human health and wellbeing. The term natural capital brings this dependency into economic thinking by positioning the environment as 'natural capital' alongside human forms of capital.

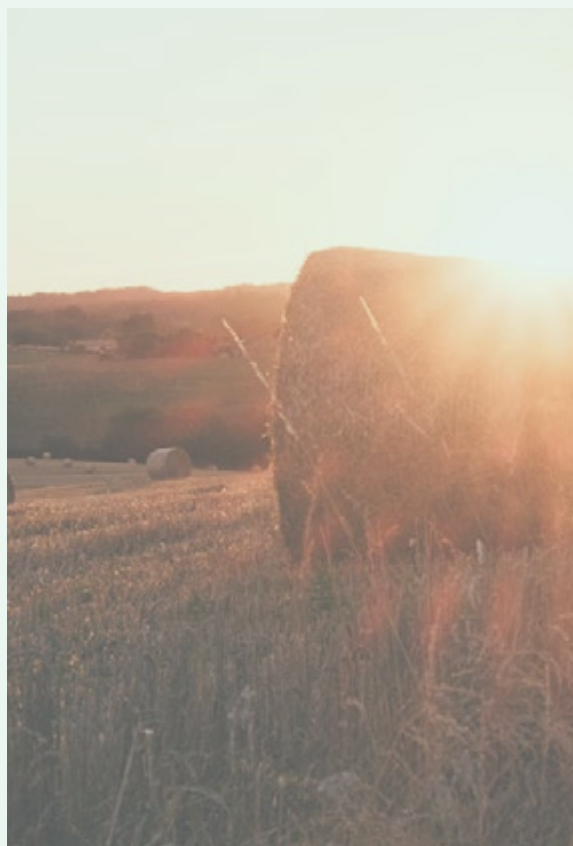
Mainstream economic management has developed mature systems for measuring and valuing human forms of capital. These include rigorous systems and accompanying standards for business-level financial reporting all the way through to national and global economic accounts. These systems enable businesses, investors and policy makers to make informed decisions about financial and economic management.

Natural capital thinking envisions a world where equivalent systems are in place to enable more informed decisions about the environment. Ultimately, this might mean adapting mainstream business accounts to incorporate 'natural capital accounts'. This could become routine for farming enterprises and other land-based businesses, and roll up to equivalent and consistent regional scale, landscape scale, state and national accounts. This would provide consistent information about natural capital at all scales, and a more complete picture of how the environment contributes to economic and human activity and how the economy affects the environment. This approach could support more informed and adaptive decisions about sustainable land management, policy and investment.

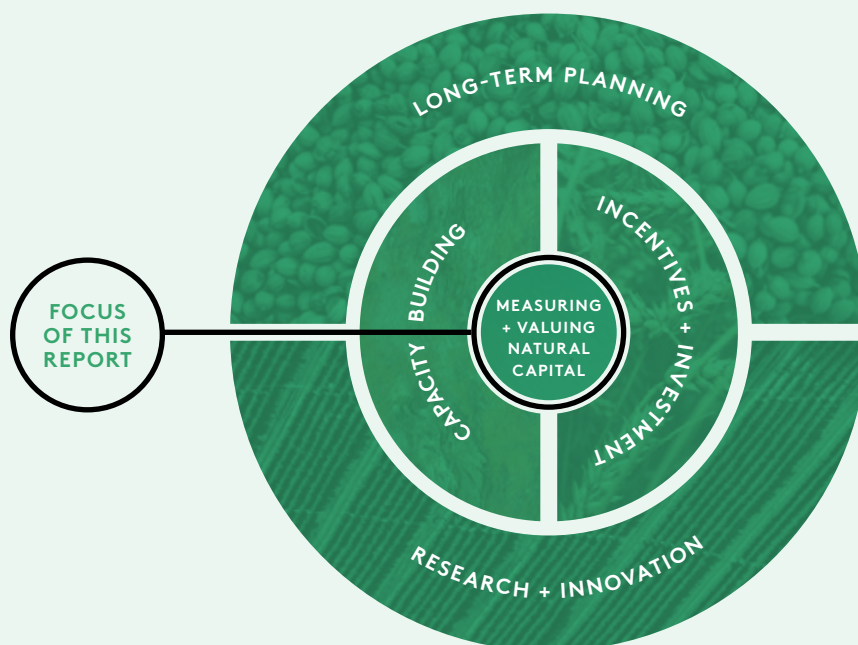
"Measurement and valuation of natural capital is a necessary but insufficient enabler of a transition to sustainable food and land use."

The carbon market provides a good example. Australia's robust systems, standards and institutions underpinning the measurement and accounting for carbon have provided the confidence for investors and policy makers to develop and invest in carbon markets and government incentive schemes. In the property sector, two robust sustainability rating schemes – NABERS and Green Star – have become the accepted standard for commercial buildings. High ratings are now essential for any commercial building that claims to be sustainable, as well as providing a proxy for cost-efficiency and comfort. The ratings provide a simple, reliable comparison tool for tenants and investors. These examples demonstrate the importance of measurement and valuation systems as an enabler of change.

We are not starting from zero. A range of approaches to measuring and valuing natural capital already exist or are emerging. This roadmap identifies opportunities to accelerate the development of these approaches.



Where does natural capital measurement and valuation fit?



It is important to recognise that the concept of natural capital is only one enabler of the systemic changes needed to achieve sustainable food and land use. Key additional enablers and drivers include (among others):

- Research and innovation through well-funded, long-term research programs;
- Capacity building, including the availability of trusted, independent advice for land managers such as is provided by NRM organisations, farming systems groups and extension officers and conservation groups;
- Increased incentives (and disincentives) and investment for natural capital and sustainable land use.

- Long-term evidence-based policy and industry planning for sustainable food and land use (see example opposite).

It is also important to recognise that land manager practices and behaviours are driven by a range of personal factors and values, such as historic and cultural connections to the environment, a desire to leave behind land in a better condition for the next generation, and shifts in social license to operate.

Improved measurement and valuation will be of limited impact without these other enablers and factors working in parallel. This Roadmap focuses on measurement and valuation as a **necessary but insufficient** enabler of a transition to sustainable food and land use.

PATHWAYS FOR SUSTAINABLE FOOD AND LAND USE

The global [Food and Land Use Coalition](#) is working to develop integrated pathways for sustainable food and land use, aligned with the Sustainable Development Goals. Its 2019 global consultation report⁷ identifies 10 critical transitions required to 'bring climate change under control, safeguard biological diversity, ensure healthier diets for all, drastically

improve food security and create more inclusive rural economies'. This work is being used to inform the development of Australian pathways for sustainable food and land use through the next phase of the Land Use Futures program, led by ClimateWorks Australia (working within the Monash Sustainable Development Institute), Deakin University and CSIROⁱⁱ.

ii See www.climateworksaustralia.org/land-use-futures.

Natural capital roadmap

	WHERE WE ARE NOW	WHERE WE NEED TO GET TO	NEXT STEPS + KEY ACTORS*
NATURAL CAPITAL MEASUREMENT	<p>Approaches to measuring natural capital are variable in robustness and coverage and not easily comparable</p> <p>1</p>	<p>Comparable measurement systems covering all key aspects of natural capital</p>	<p>Establish a natural capital forum to agree (and iterate over time) a common language and core set of natural capital metrics</p> <p>.....</p> <p>Investigate approaches to achieve greater standardisation, assurance and inter-operability of measurement approaches</p> <p>Trusted intermediaries, bringing together representatives of key owners, collectors and end users of natural capital information</p> <p>.....</p> <p>Environment and agriculture departments, working with researchers</p>
	<p>Inadequate incentive for many land managers to measure natural capital</p> <p>2</p>	<p>Clear value proposition for land managers at all scales to regularly measure and report on natural capital</p>	<p>Use public and private incentives to enable land managers to participate in natural capital projects</p> <p>Agriculture and environment departments working with Treasury, finance sector and land managers</p>
	<p>Low levels of trust restricting sharing of farm-level data</p> <p>3</p>	<p>Farm-level data able to be easily shared and aggregated from farm scale to national scale</p>	<p>Piloting of data management and aggregation systems and technology enablers to protect confidential data (e.g. blockchain)</p> <p>Land managers, working with trusted intermediaries, agriculture and environment departments (including ABARES) and Australian Bureau of Statistics</p>
	<p>Indigenous knowledge rarely considered in the design of natural capital measurement systems</p> <p>4</p>	<p>Indigenous knowledge reflected and built upon in the design of natural capital measurement systems</p>	<p>Bring together existing approaches to traditional knowledge generation, maintenance and education with natural capital measurement (such as savanna burning carbon methodologies⁶)</p> <p>Indigenous groups with resourcing from government</p>
	<p>Natural capital information is often not seen as useful to inform or enable land management decisions</p> <p>5</p>	<p>Robust natural capital measurement is accessible, affordable and integrated into land management decisions for enterprises at all scales</p>	<p>Undertake a market analysis to clarify end-user needs for natural capital information</p> <p>.....</p> <p>Design and pilot flexible approaches that are accessible and affordable for enterprises at all scales, and support enabling technologies for lower-cost data collection, processing and analytics (remote sensing, drones, Internet of Things, GIS mapping)</p> <p>Researchers, working with trusted intermediaries</p> <p>.....</p> <p>Researchers working with trusted intermediaries, land managers and agriculture departments</p>

WHERE WE ARE NOW		WHERE WE NEED TO GET TO	NEXT STEPS + KEY ACTORS*
<div>6</div> <div>NATURAL CAPITAL VALUATION</div>	Natural capital not routinely incorporated into key financial decisions (especially lending, property valuation, insurance)	Natural capital fully incorporated into key financial decisions	<p>Accelerate piloting and implementation of new business and financing models for sustainable land management, and share lessons learned</p> <p>.....</p> <p>Establish sectoral processes to drive research (including on the links between natural capital and financial performance) and capacity building for integration of natural capital into mainstream financial decision-making</p> <p>Trusted intermediaries, working with property peak bodies, valuers and finance sector</p> <p>.....</p> <p>Finance sector and food, fibre and timber value chain, working with land managers</p>
	Natural capital not fully integrated into corporate decision making in the food, fibre and timber value chain	Natural capital reporting fully integrated into corporate decision making	<p>Increase natural capital investment and reporting, including through wider participation in Natural Capital Coalition and implementation of the Natural Capital Protocol, and increased sharing of natural capital valuation case studies</p> <p>.....</p> <p>Investigate appropriate natural capital-related corporate reporting (e.g. extension of the Taskforce on Climate-related Financial Disclosure guidelines)</p> <p>Food, fibre and timber value chain</p> <p>.....</p> <p>Finance sector, working with financial regulators</p>
	Use of natural capital information to inform policy not prioritised at a whole-of-government level	Natural capital measurement and reporting elevated alongside core economic reporting	<p>Accelerate implementation of National Strategy for Environmental-Economic Accounting⁹</p> <p>.....</p> <p>Investigate establishment of an independent institution to monitor and report on natural capital at a cross-sectoral, whole-of-government level (e.g. the UK Natural Capital Committee¹⁰)</p> <p>Environment departments</p> <p>.....</p> <p>Central government agencies working with agriculture and environment departments</p>
	Limited market architecture for natural capital investment	Effective market architecture for natural capital investment	<p>Build in mechanisms to value natural capital within carbon markets (including via Carbon Farming Industry Roadmap¹¹)</p> <p>.....</p> <p>Investigate new or expanded natural capital market mechanisms (e.g. biodiversity offsets¹², Reef Credits¹³ etc.)</p> <p>Carbon farming sector, working with environment departments</p> <p>.....</p> <p>Environment departments, working with agriculture departments</p>
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Implementing the Roadmap

KEY ACTORS

Implementing this roadmap must be a collective effort across sectors.

The implementation of this Roadmap needs to be monitored and evaluated over time to assess the extent to which efforts to improve measurement and valuation of natural capital are helping to deliver improved environmental, social and economic outcomes. An initial priority is the mapping of existing activity against the recommended action areas and next steps. Establishment of one or more vehicles for ongoing communication of related activity will support coordination.

ClimateWorks Australia, as part of the Land Use Futures program, will seek to provide an ongoing contribution in the form of working with third parties to scope projects aligned with the Roadmap, and through monitoring and reporting on progress in implementing the identified next steps.



LAND MANAGERS

Hold the on-ground knowledge and control much of the data required to implement this roadmap – their participation and the participation of their industry representatives is essential. Larger agri-businesses and corporate land managers can and should lead. Many small-and medium-sized farming businesses operate on very low margins and support is critical to enable them to contribute their knowledge, participate in pilots and change practices.



INDIGENOUS GROUPS

Including Indigenous land managers, Indigenous Land Corporations, Indigenous Ranger groups and others – hold deep knowledge of land management techniques adapted over thousands of years to Australia's unique environments and have an important role as stewards of this knowledge.



RESEARCHERS AND CONTENT EXPERTS

Much of the knowledge and skills required to implement the actions in this Roadmap are held by researchers and content experts, including ecologists, universities and other research organisations, Research and Development Corporations, natural resource management organisations, and environmental non-profit organisations.



GOVERNMENTS

Have a critical role in providing the support required – particularly agriculture and environment departments, the Australian Bureau of Agricultural and Resource Economics and the Australian Bureau of Statistics, working closely with central agencies, including Treasuries.



THE FOOD, FIBRE AND TIMBER VALUE CHAIN

Including processors, manufacturers, brands, wholesalers and retailers – is increasingly seeking transparency in their supply chain and have a powerful influence over the decisions of land managers.



TRUSTED INTERMEDIARIES

Including regional natural resource management organisations, farming systems groups, industry groups, government-funded extension and advisory officers and private sector advisers – have crucial regional and sectoral knowledge and relationships. They are able to facilitate partnerships, community-led participation and co-design, and the tailoring and adaption of initiatives to different regional, sectoral and cultural contexts. Conservation land managers such as land trusts and conservancies also own and manage extensive areas of land and are increasingly incorporating productive uses, often in partnership with producers.



THE FINANCE SECTOR

Including banks, institutional investors and insurers – has a central role in supporting the actions identified in this roadmap and helping to build the systems that will enable them to better value natural capital, reward land managers who demonstrate better natural capital outcomes, and ultimately reduce the finance sector's own financial risks and exposure.

“Implementing this roadmap must be a collective effort across sectors.”



IMPLEMENTATION PRINCIPLES

A number of cross-cutting principles have been identified as central to the successful implementation of the actions outlined above. They include:

ON-GROUND EXPERIMENTATION, LEARNING AND ITERATION

Efforts to improve quantification of natural capital should not delay action or investment. Systems for measuring and valuing natural capital need to be implemented and developed in an iterative fashion, with lessons learned in this process informing further development in response to real-world needs. Pilots will be needed across a range of land uses and geographies to reflect the inherent diversity and variability of different contexts.

ENABLING PARTICIPATION OF UNDERREPRESENTED GROUPS

Specific groups have been underrepresented in discussions about natural capital, particularly Indigenous land managers and smaller farming enterprises. These are the decision-makers for vast tracts of Australia's land, and ultimately critical to the success of any system for improved measurement, valuation and management of natural capital. It is essential to facilitate their effective, long-term participation, including through appropriate resourcing to enable individuals without specific organisation affiliation to participate in discussions and events and by establishing engagement vehicles such as the Indigenous Carbon Industry Network.

MANAGING THE INTERFACE BETWEEN PUBLIC AND PRIVATE VALUE

Facilitating investment into private goods will narrow the gap for public investment – enabling it to be more targeted and avoiding undue public funding for private benefits. Defining the boundary between private value in natural capital (e.g. by defining productivity benefits for farming) for which a clear justification exists for private investment, and public values in natural capital which require public funding, is an ongoing challenge and needs to be carefully considered. More robust natural capital measurement approaches will help, but are not likely to resolve this issue.

IMPROVING ALIGNMENT AND COORDINATION OF POLICY AND ACTIVITY

Siloing of activity and policy across research disciplines, industry sectors, stakeholder groups, and different levels and areas of government has been a significant barrier to progress. Coordination is vital for any natural capital initiative. The proposal of an ongoing stakeholder roundtable was raised as a possible vehicle for this coordination at a high level, but this needs to be a consideration in any natural capital initiative.

CAPITALISING ON NRM INFRASTRUCTURE

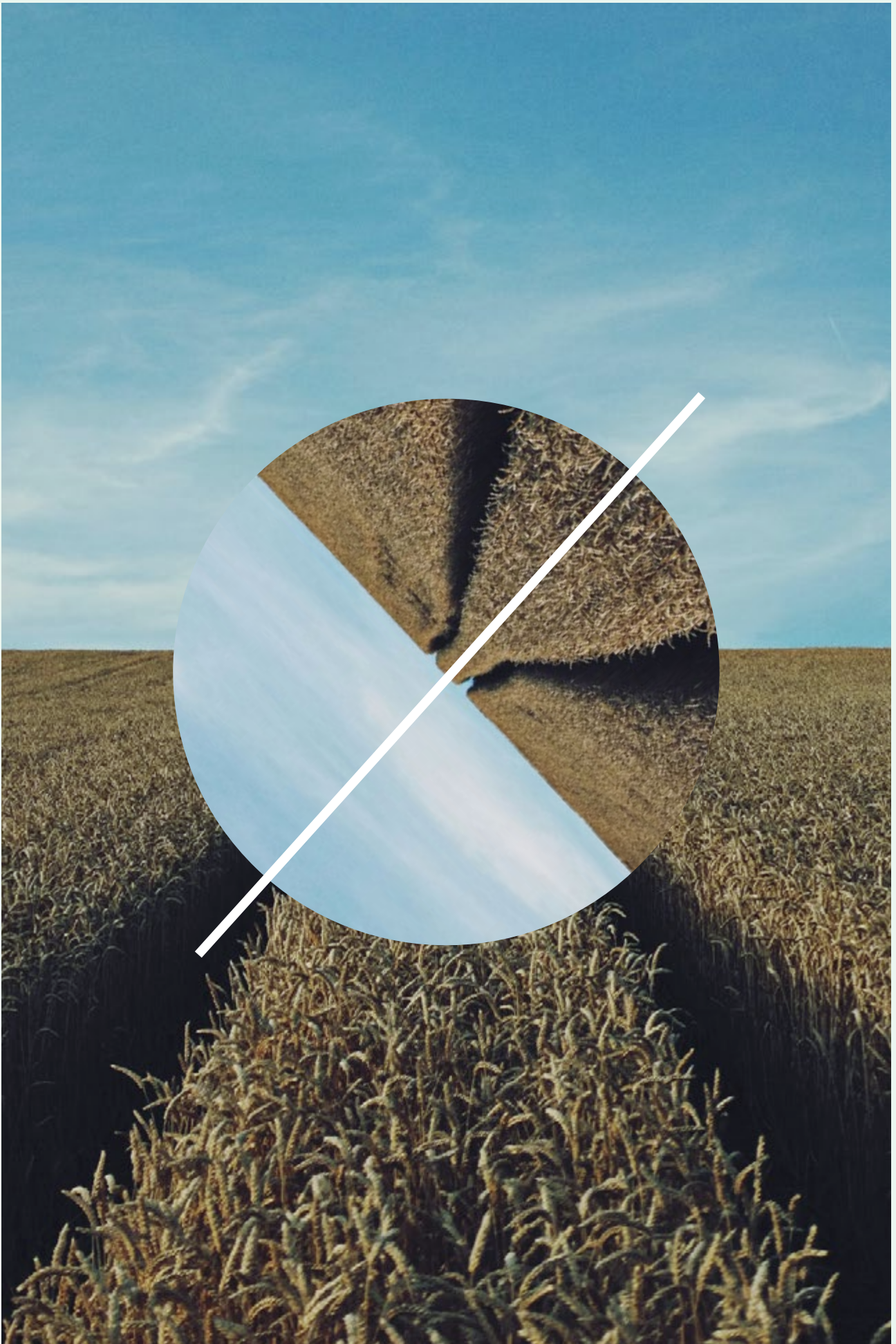
Natural resource management 'infrastructure' – including Landcare and NRM organisations – was identified as a significant asset for Australia in the transition to more sustainable land use. NRM organisations are crucial intermediaries with regional knowledge and relationships. They produce regional plans that can help achieve alignment across different scales and help manage trade-offs. Many NGOs working in private land conservation act in a similar capacity. These networks should be leveraged and resourced to support implementation of the Roadmap, especially in light of the downscaling of government funded extension services.

RECOGNITION OF SOCIAL AND CULTURAL VALUES IN NATURAL CAPITAL

Natural capital provides social and cultural values that cannot be reduced to standardised, quantifiable values. Implementing this Roadmap should take account of the deep traditions of connection to maintain and build social and cultural values without reduction. Examples of this whole-systems accounting are arising, especially through the leadership of First Peoples in frameworks such as the Aboriginal Carbon Foundation's Core Benefits Framework. The first formal verification of environmental, social and cultural values using this Framework has now taken place in Kowanyama¹³.

CONSISTENCY WITH INTERNATIONAL FRAMEWORKS

Consistency is critical for natural capital measurement and valuation to be fully embedded in mainstream reporting practices. Alignment of emerging measurement approaches with the accepted international frameworks can provide this consistency and comparability, such as the UN System of Environmental Economic Accounting¹⁵ (and its application to food systems via The Economics of Ecosystems and Biodiversity)¹⁶, the IRIS+ system¹⁷ and the GRI Sustainability Reporting Standards¹⁸.



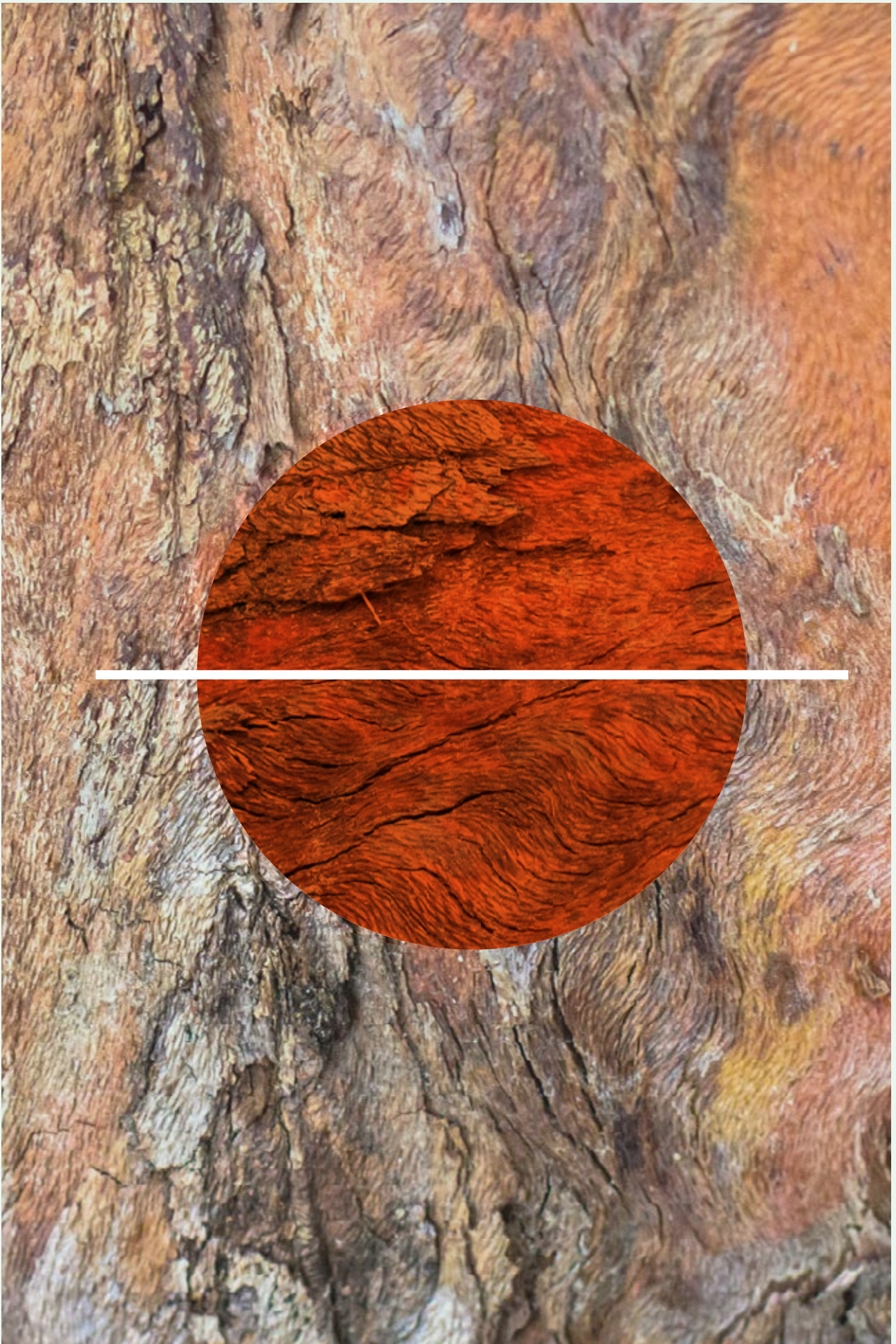
MAJOR SHORT-TERM OPPORTUNITIES

A number of significant short-term opportunities have been identified by stakeholders as key opportunities to implement the next steps in this Roadmap. Specifically, these are opportunities to test and pilot natural capital measurement approaches, collect data to create long-term integrated data sets from which key insights can be drawn, begin to embed understanding of natural capital and its importance in decision making, and an improved understanding of natural solutions to economic challenges.

Key opportunities include:

- The establishment of the \$500 million Queensland Land Restoration Fund, which is already investigating how to measure and value 'co-benefits' associated with carbon farming projects;
- The aligned recommendations from two independent reviews¹⁹ and the National Farmers Federation²⁰ for the establishment of a national, large scale independent fund to support sustainable land management;
- The development of the \$30 million national Agriculture Stewardship Package²¹, which could be designed to include piloting of improved natural capital measurement and valuation approaches;
- Industry sustainability strategies (such as the Beef Sustainability Framework) seek to define sustainability metrics and track industry progress in the adoption of sustainable land management practices. Many are currently in development or periodically updated, and could benefit from the consistency, comparability and accountability that improved natural capital measurement systems could provide;
- The establishment of the \$100 million per year Future Drought Fund²² and discussions about the future of national, state and local drought funding and assistance programs, which are refocusing on how to better incentivise activities that build natural capital at the same time as building drought resilience;
- Discussions about the future direction of the agricultural innovation system²³ – which in 2017-18 included over \$800 million in public funding – including potential coordination of activity across Regional Research and Development Corporations, the next phase of the CRSPI (Climate Research Strategy for Primary Industries) program²⁴, the Managing Climate Variability program, and the National Environment and Science Program²⁵;
- Indigenous Land Use Agreements, Indigenous Protected Areas and Indigenous Ranger Programs, which could be expanded in scope and resourcing for natural capital management – including measurement and valuation – while building understanding of traditional land management and delivering social and cultural benefits;
- The development of the Australian Sustainable Finance Roadmap by the Australian Sustainable Finance Initiative²⁶, which includes senior representation from major banks, superannuation funds, insurance companies, financial sector peak bodies and academia, and is due to be released in 2020.





Case studies

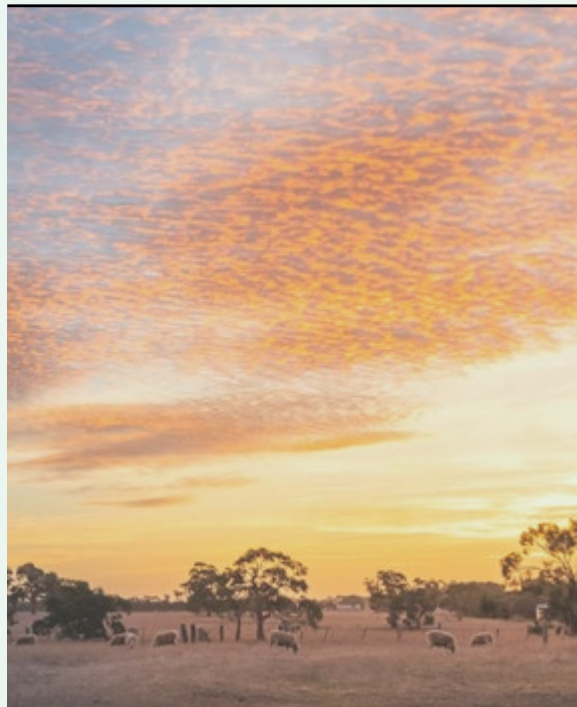
FARM LEVEL – ACCOUNTING FOR NATURAL CAPITAL STOCKS

/ KILTER RURAL

Kilter Rural invests in Australian water, farmland and ecosystem assets.

Kilter Rural has adopted the Accounting for Nature methodology to consistently monitor, record and interpret ecological changes in the health and condition of the natural capital on farmland developed and managed for superannuation fund VicSuper's Future Farming Landscape investment at Winlaton in north-west Victoria.

The Accounting for Nature framework²⁷ provides an accredited score (labelled an 'Econd') from 0 to 100, where 100 represents a pre-1750 reference state. Accounts were produced for 2007 and 2018, and enable Kilter to measure progress towards its 2022 targets for soil and vegetation condition, and credibly report this progress to investors.



FARM LEVEL – LINKING NATURAL CAPITAL TO FARM PROFITABILITY

The ANU-led Farm Profitability Study²⁸ used a natural capital accounting approach to collect long term financial performance data from grazing enterprises in the grassy woodlands of NSW.

Farmers were selected on the basis that their farms exhibit the characteristics of healthy, sustainable grassy woodlands on a property-wide basis. The study compared their profitability, income levels and expenditure to similar farms in their local areas and compared their present wellbeing with the regional averages.

The findings suggest that some graziers can maintain profits whilst maintaining and enhancing biodiversity and natural capital, and demonstrates the practicality and usefulness of natural capital accounting. Interestingly, the study also found farmer wellbeing was associated with improved natural capital on farm.

PLANTATION FOREST – INTEGRATING NATURAL CAPITAL ACCOUNTS INTO CORPORATE FINANCIAL ACCOUNTS

/ FORICO

Forico is Tasmania's largest private forestry management company, managing over 100,000 hectares of timber plantations.

Forico has piloted the use of the international SEEA (the UN System of Environmental-Economic Accounting) to develop natural capital accounts for a Tasmanian forest plantation²⁹. This test integrated environmental accounts with standard corporate financial accounts, a global first in a forestry context. It involved accounting for the natural capital stock on the property and the flow of ecosystem services supplied by these stocks, and developing a method to integrate this information with standard financial accounting frameworks.

The exercise enabled Forico to improve operational decision-making through the use of a more complete set of financial accounts, improve communication to stakeholders through the recognition of a wider range of environmental values, and improve its strategic allocation of financial resources to maximise the flows of ecosystem services.



LANDSCAPE SCALE – ACCOUNTING FOR REGIONAL NATURAL CAPITAL STOCKS

In 2010, ten of Australia's 54 Natural Resource Management regions piloted the Accounting for Nature methodology for natural capital accounting³⁰. The pilot developed condition accounts for native vegetation, native fauna, soil, rivers, wetlands, estuaries and marine fauna.

Accounts were accredited by an appropriate scientific body against draft accounting standards. The trial made progress in demonstrating that it is practical to establish a robust and ongoing national program to measure the condition of Australia's environmental assets.

The trial also demonstrated the multiple benefits of environmental accounting at a landscape scale, including improved understanding of the environment, informed policy and investment decisions, and greater understanding of the impact and effectiveness of policies and investments on environmental assets over time.

COMMUNITY LEVEL – COMMUNITY-LED INTEGRATION OF NATURAL CAPITAL WITH SOCIAL AND CULTURAL BENEFITS

/ ABORIGINAL CARBON FOUNDATION'S CORE BENEFITS VERIFICATION FRAMEWORK

The Aboriginal Carbon Foundation is a national organisation that aims to catalyse life-changing, community prosperity through carbon farming.

The Aboriginal Carbon Foundation's Core Benefits Verification Framework creates a unique opportunity for Indigenous people to become the experts in the verification of environmental, social and cultural values associated with carbon projects. It empowers Indigenous communities, rangers and farmers by building ownership and capacity development of the verification process.

The Framework is designed to provide a reputable, independent and transparent verification process enabling corporate investment in natural capital. It was built on years of research and work with communities, and integrates evaluation best practice from the international development sector. The first core benefits verification using the framework took place in Kowanyama, Queensland in September 2019, and identified two core benefits associated with savanna burning projects in the region. These were:

- Enabling the continuation of cultural practice; and
- Enabling the coming together of western and Indigenous science.



SUPPLY CHAIN – ENVIRONMENTAL PROFIT AND LOSS ACCOUNTING

/ KERING

Kering is the owner or part-owner of a number of luxury international brands, including fashion companies Gucci, Puma and Balenciaga.

Kering has developed and implemented an Environmental Profit and Loss (EP&L) accounting tool for measuring and quantifying the environmental impact of its activities through its supply chain in a way that is visible, quantifiable and comparable³¹. The EP&L tool measures water consumption, water pollution, waste, air pollution, greenhouse gas emissions and land use. It is freely available for other companies to use.

Kering uses its EP&L to track progress towards its target of reducing its EP&L 'intensity' by 40 per cent across its supply chain by 2025.

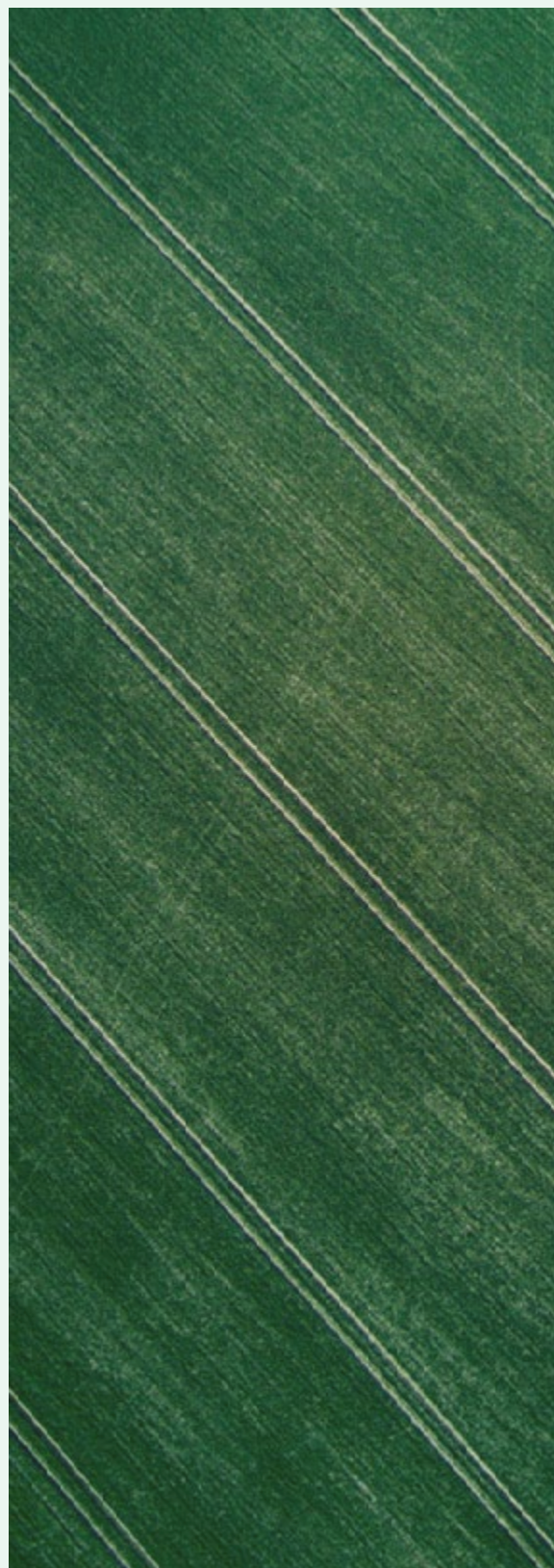
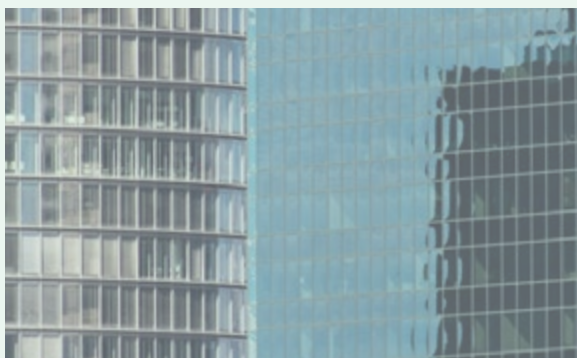
FINANCE SECTOR – INTEGRATING NATURAL CAPITAL INTO CREDIT RISK ASSESSMENTS

/ NATURAL CAPITAL FINANCE ALLIANCE

The Natural Capital Finance Alliance is a finance-led international coalition of businesses and non-government organisations working to support finance sector leadership on natural capital.

In 2019 it published a guide to Natural Capital Credit Risk Assessment in Agricultural Lending³². This is a step-by-step guide that shows agricultural lenders how to integrate natural capital considerations into credit risk assessments. It is designed to support financial institutions in their ability to analyse natural capital-related risks and opportunities in agriculture.

The guide describes four steps in risk assessment for agricultural lending, including determining the appropriate scope of a risk assessment and assessing a farmer's ability to mitigate risk. The guide uses examples drawn from wheat farming in Australia to illustrate each step of the risk assessment. For instance, it describes in detail the risk factors for Australian wheat growing (such as growing season rainfall and rainfall reliability), data sources for past trends, and projected trends for those risk factors and risk mitigation measures.



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LAND USE FUTURES

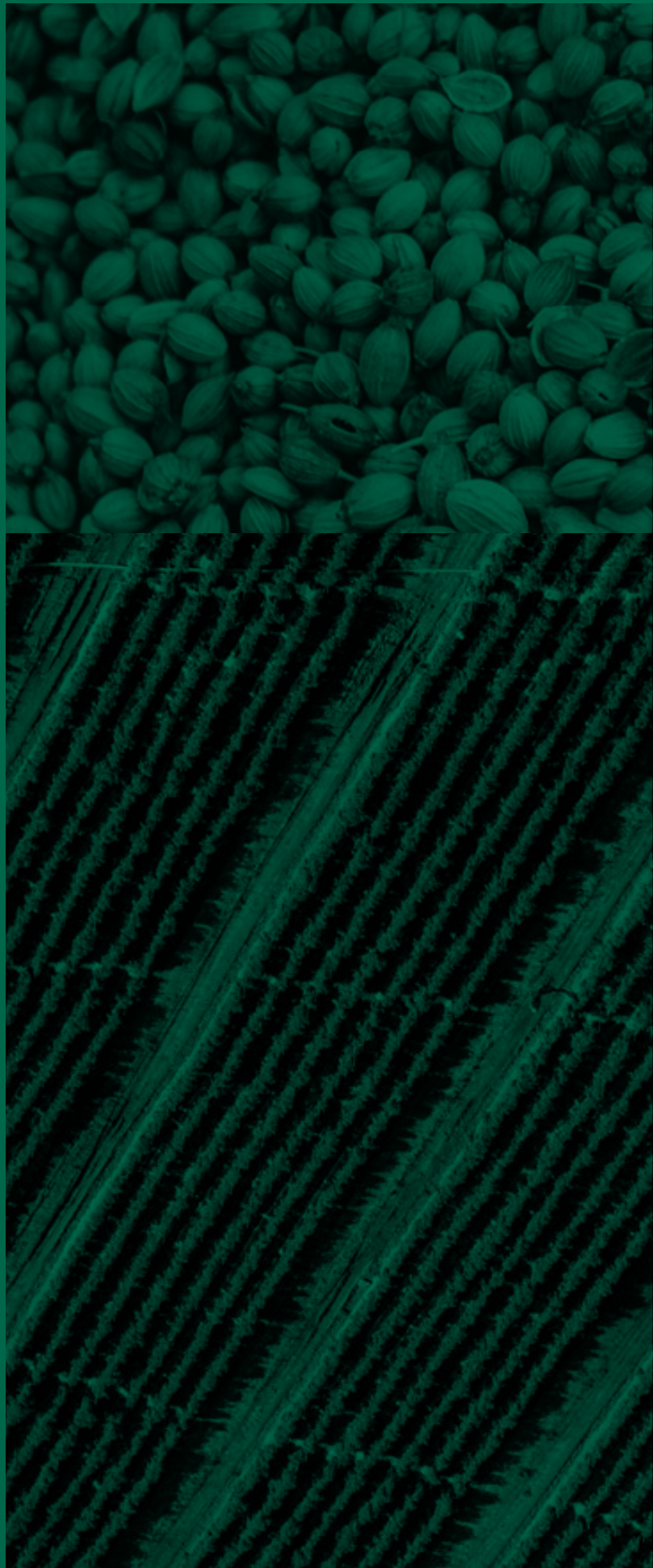
ABOUT LAND USE FUTURES

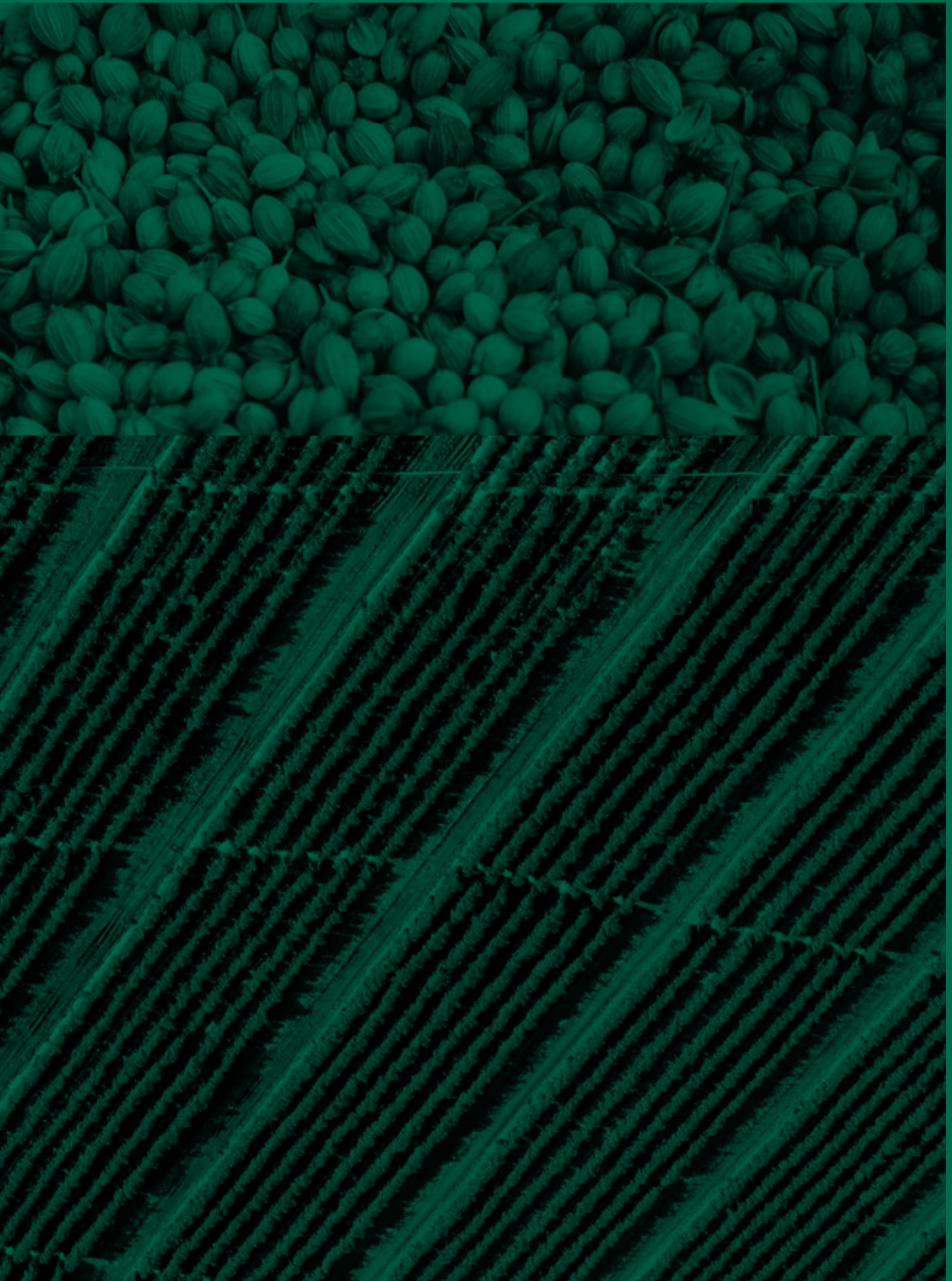
How can we sustainably produce healthy food for a growing global population while achieving net zero emissions?

Our food and land use system faces a storm of converging pressures, including increasing global demand for food and fibre, climate change impacts, environmental degradation and diet-related health issues. Continuing on the same path risks overwhelming the planet's capacity to continue to meet our needs.

ClimateWorks Australia (working within Monash Sustainable Development Institute), CSIRO and Deakin University, seek to address this challenge by taking a highly participatory approach to developing pathways and a roadmap for a sustainable food and land use system for Australia. The program is contributing to and benefiting from participation in the global Food and Land Use Coalition, led by the UN Sustainable Development Solutions Network, World Business Council for Sustainable Development, World Resources Institute, SYSTEMIQ and others.

For more information, visit
www.climateworksaustralia.org





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ClimateWorks Australia is an expert, independent adviser,
committed to helping Australia, South East Asia and the
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It was co-founded through a partnership between
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