**Outcome 5:** By 2023, there will be increased awareness and adoption of land resource management practices that protect the condition of soil, vegetation and biodiversity on-farm.

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Inputs

* Australian Government funding and investments from state governments, industry and community.
* Review of soil condition factors affecting agricultural productivity and condition of ecosystem services provided by agricultural lands to the broader community; maps showing priority areas for these soil factors which also affect soil water storage and availability to plants.
* Knowledge of sustainable land management practices needed to address priority soil issues, including carbon, acidification and reducing soil and nutrient lost through wind and water erosion.
* Learnings from previous NRM programs, recent science and online tools to support program delivery.
* Local skills, expertise and knowledge.

*Rationale*

Previous Australian Government investment in natural resource management through Landcare and other government programs has created lasting change in how farmers and communities manage natural resources. Building on this positive change further leverages this investment

Good science, together with industry led management practice change, will build farmers capacity to manage for climate change and to meet market demands for transparent reporting on provenance and sustainability.

Outputs

* Training workshops, field days and information material on changing land (including vegetation) management practices on-farm.
* New technologies and tools developed to encourage better on-farm management of soil and vegetation.
* Increase in areas fenced/ managed for biodiversity and production outcomes on-farm.

Context

Agricultural industries rely on the quality of their soil, water and vegetation resources to produce food and fibre profitably.

Australia’s soils are mostly ancient, strongly weathered and frequently infertile. Careful management is required to address chronic soil constraints to agriculture, whilst improving the services such as clean air and water they provide to the community. Native vegetation on farm also plays an important role in agricultural production, as well as contributing to biodiversity conservation.

Australia has obligations under international conventions to protect biodiversity, soil and wetlands, and to address climate change.

Problem

Across Australia soil health, remnant vegetation and biodiversity are being depleted on-farm due to production pressures, rising input costs and changes to the climate.

Example Services

In priority areas farmers to adopt:

* Practices to manage acidification, including through soil testing and liming.
* Improved groundcover management practices to reduce the risk of soil and nutrient loss in cropping and pasture systems through wind and water erosion.
* Practices that maintain productivity at a high level relative to farm potential to maximise carbon capture by plants to flow through the soil.
* Practices to protect and enhance on-farm remnant native vegetation, including planting new areas.

Local groups are encouraged to produce and publish maps online which show regional progress in improving vegetation management on-farm.

Midterm evaluation
(1-3 yrs)

* An increased number of farmers understand how their management practices affect their farm’s soil condition and profitability, and the air and water quality and biodiversity protection enjoyed by the community
* An increased number of farmers have adopted practices needed to reduce the risk of soil and nutrient loss and acidification, improve carbon retention and biodiversity protection on-farm.

End of program

There is a demonstrable increase in:

* The numbers of farmers regularly testing soil pH
* The tonnes of lime applied to agricultural land
* The area of grazing and cropping land meeting regional groundcover targets as measured by remote sensing
* The area of agricultural land mapped that has improved biodiversity protection in place.

Outcome Indicators

*Rationale*

Investing in the activities identified above should increase the level of adoption of land management practices delivering improvements in soil, biodiversity and vegetation condition on-farm

Increased adoption of these practices will also build agriculture’s resilience to climate change, and underpin reporting for sustainability.

*Rationale*

Measuring outputs provides an initial assessment of engagement and potential for practice change. These outputs can be used to identify indicators of progress to facilitate milestone payments.

*Rationale*

These indicators are considered measureable within a three year time-frame, align with the program’s mid-term evaluation. They demonstrate that activities and outputs are having an impact.

*Rationale*

These indicators aim to measure the success of the interventions.

*Rationale*

National Landcare Program funding aims to support the integrated management of natural resources on-farm by improving the way soil, plants, people, water and landscapes interact, and the understanding of how their management affects the air and water quality and biodiversity enjoyed by the broader community.