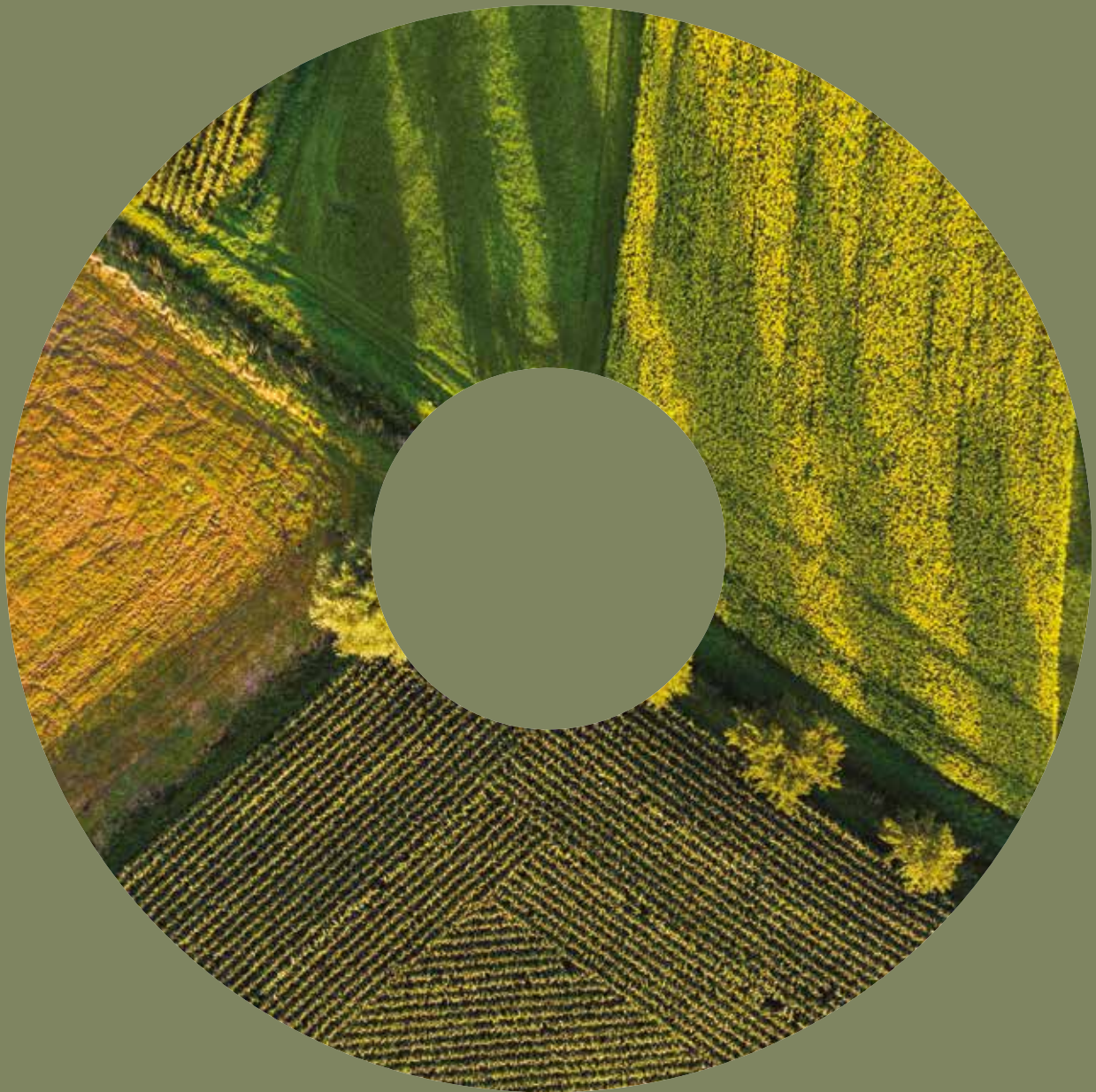




The
Aotearoa
Circle

Mā te
Kaitiakitanga
ko te
Tōnuitanga
Prosperity
Through
Guardianship

Land
& Soil



Land & Soil

Approximately half of New Zealand's land area is used by our primary industries. Soil management and preservation is vital to our productive processes. We also recognise what happens on our land impacts our freshwater, coasts and climate

Current State

Our land use has changed dramatically in the past two decades, particularly with the expansion of urban areas and increasing intensification, and a shift in some regions from pastoral sheep farming to beef and dairy. The intensification of agriculture is putting pressure on our freshwater quality and increasing agricultural emissions. The quantity and quality of our soil is also being affected by erosion. Significant gaps in our land and soil data inhibits our ability to understand the scale of the issues and our ability to introduce strong, evidence-based responses.



Current Trend

We are acutely aware of the issues and we've started to tackle them directly. Government and industry are increasing investment in more efficient land use, while working to heal the damage to soils, waterways and coastlines. However, there remains a disconnect between players on how to use, regulate and monitor land use across New Zealand, as well as differing opinions on how far and how fast to go to address the issues.



A Future Vision

New Zealand has sound land use criteria that enables us to match how we use our land with the natural characteristics and environmental limits of that land and surrounding water/air. Our use of land significantly halts and reverses the decline of our indigenous biodiversity. Our overall use of land acts as a carbon sink and helps us transition to a sustainable and low emissions economy.

What's already happening?

- Government and industry is investing in data and science to get a better understanding of the state of our soils and current trends. Programmes such as the Land and Water National Science Challenge and the Sustainable Land Management & Climate Change Research Programme and LiDAR mapping will improve our understanding of the issues and our options to address them
- Beef and Lamb and Federated Farmers have developed environmental action plans and are working closely with their members to improve land use and reduce negative impacts from farming
- Industry, local communities, and central and local government are also working together to improve farming practices
- Government has initiated more stringent regulations, and funds to assist with remediation, standards and guidance for industry and households
- The Ministry for Primary Industries has an Erosion Control Funding Programme and Hill Country Erosion Fund to help reduce wide-scale erosion problems

Key data

7%

reduction in the area of land
in agricultural production
across New Zealand

42%

increase in dairy farmland

20%

decrease in sheep and beef farmland

10%

A 10 percent expansion between
1996-2012 in urban areas and
accompanying loss of some of
New Zealand's most versatile land

Source: Our land, 2018

Why act now?

- Our approach to resource management is not keeping up with our changing needs and uses. Policy makers need to shift to a system-wide approach to resource management and decision making, including shifts in policy and legislation across a number of agencies including planning, housing, infrastructure, transport, and local Government
- We need to think about how we balance the various demands on our land use. Some areas may require significant change and there is a natural tension between urban expansion and protection of versatile soils
- Soil quality monitoring results showed that two out of seven indicators give reason for concern. These were phosphorus levels in soil and macroporosity
- The environment report 'our land, 2018' found that 33% of sites tested had soil phosphorus levels that were too high – which can negatively impact on water quality
- Our land, 2018 also found 44% of sites tested had macroporosity levels that were too low. Macroporosity is an indicator of soil compaction, which can negatively impact on water quality and the productivity of the land

Opportunities for collective action

- This is a critical nexus of all domains – what happens on land impacts our biodiversity, freshwater and marine environments and our greenhouse gas emissions
- There is a yet to be explored opportunity to develop responses that will improve the outcomes across all our domains
- The Aotearoa Circle will be initiating workshops to discuss where it can use its unique public/private membership to explore new approaches to land uses that will address the decline in this natural resource

Key data

200M

tonnes of soil lost
each year, costing

\$127M

in lost soil, nutrients and
flood damage, with

\$51M

worth of farmland productivity lost

Continued loss of indigenous vegetation (coastal, wetland and lowland ecosystems) and nearly 83 percent of the land vertebrates classified in the threatened species system were either threatened or at risk of extinction

Source: Our land, 2018

These snapshots are designed to be living documents. They will be updated regularly to incorporate activities and insights that highlight progress towards the desired future state.

If you have feedback please email:
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