

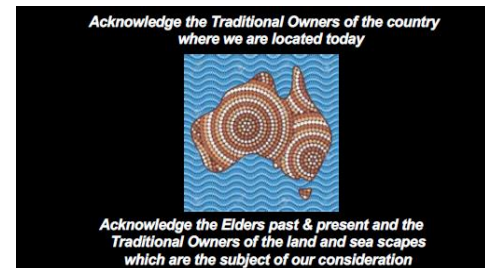
# The National NRM Sector & its proactive role in soil management

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**NRM**  
**REGIONS**  
**AUSTRALIA**



# Our collective dilemma.....

*The Earth is currently experiencing the sixth major extinction event in the history of life on this planet. More than 36% of assessed species are facing extinction!!*

*Over the last 200 years in Australia we have lost some 115 species native plants and animal*

*60% of coral reefs globally could be lost by 2050 (or even earlier)*

*“Australia has had the third highest cumulative loss of soil organic carbon in the world.....*

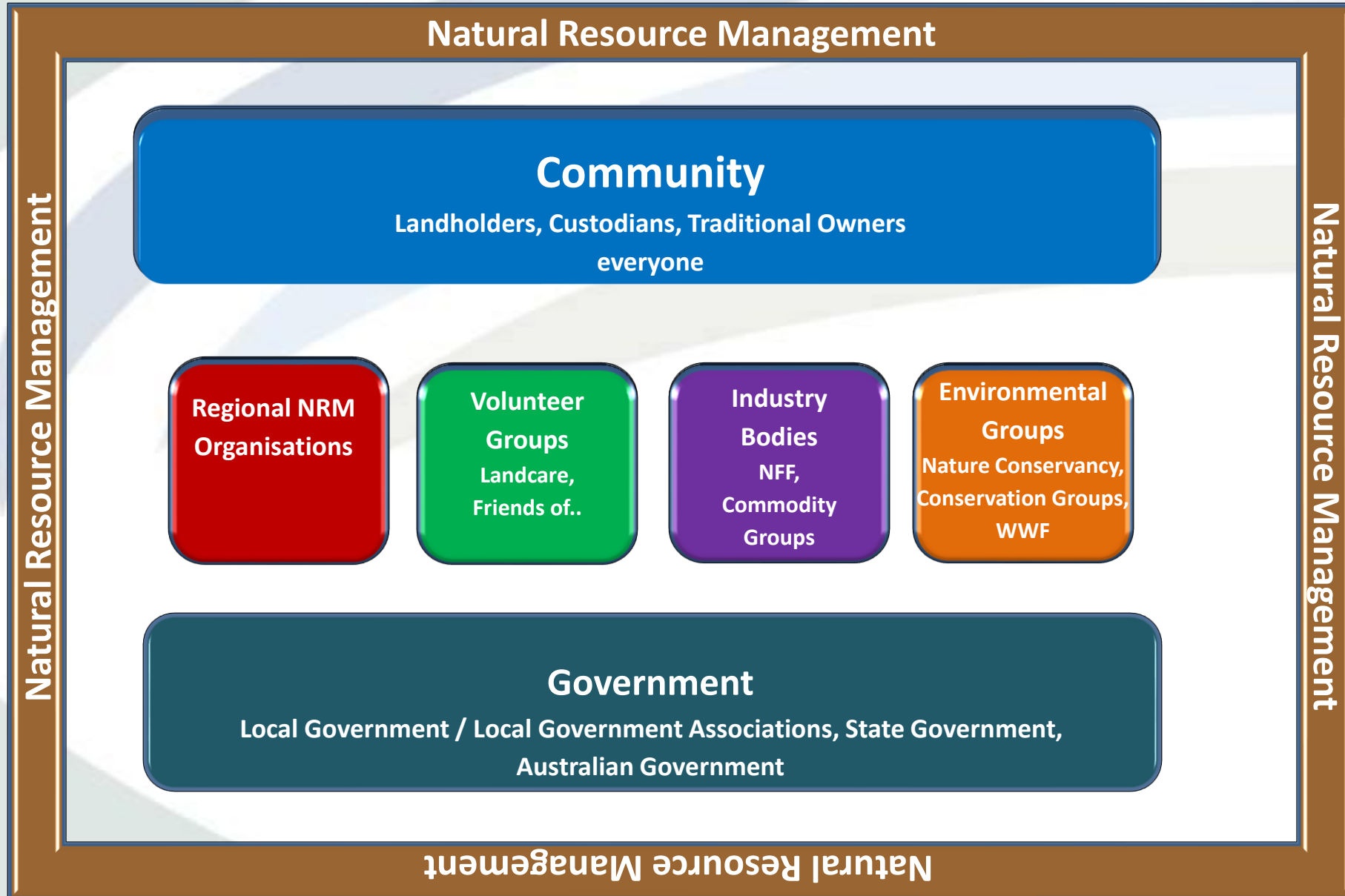
*Regenerative management practices are restoring soil function locally, but adoption is not yet widespread. Groundcover targets have not been met, and monitoring is identifying where improved protection from wind erosion is needed” (State of the Environment Report, 2022)*

*Land degradation costs in Queensland alone are in excess of \$2B/yr.*

Australia's ecological footprint is nearly three times the average global footprint, and approximately 3.5 times the level of what the planet can regenerate on an annual basis.<sup>3</sup>



# Who are NRM stakeholders?



# The NRM Regional Model

Been around since the mid-1990s.

Australia has 54 regional natural resource management (NRM) organisations covering:

- Land
- Waterways & Estuarine, and
- Coastal & Marine areas

All 54 regional NRM organisations are governed by a Board of Directors

**Appointed by State/Territory (Statutory Authorities):**

- South Australia
- New South Wales
- Victoria
- Tasmania
- Torres Strait Regional Authority

**Elected by community / members (Not-for-Profits):**

- Western Australia
- Queensland
- Northern Territory
- Ocean Watch (National Marine NRM established by seafood industry)

**Australian Government:**

- ACT government is regional NRM for that Territory (has advisory committee)

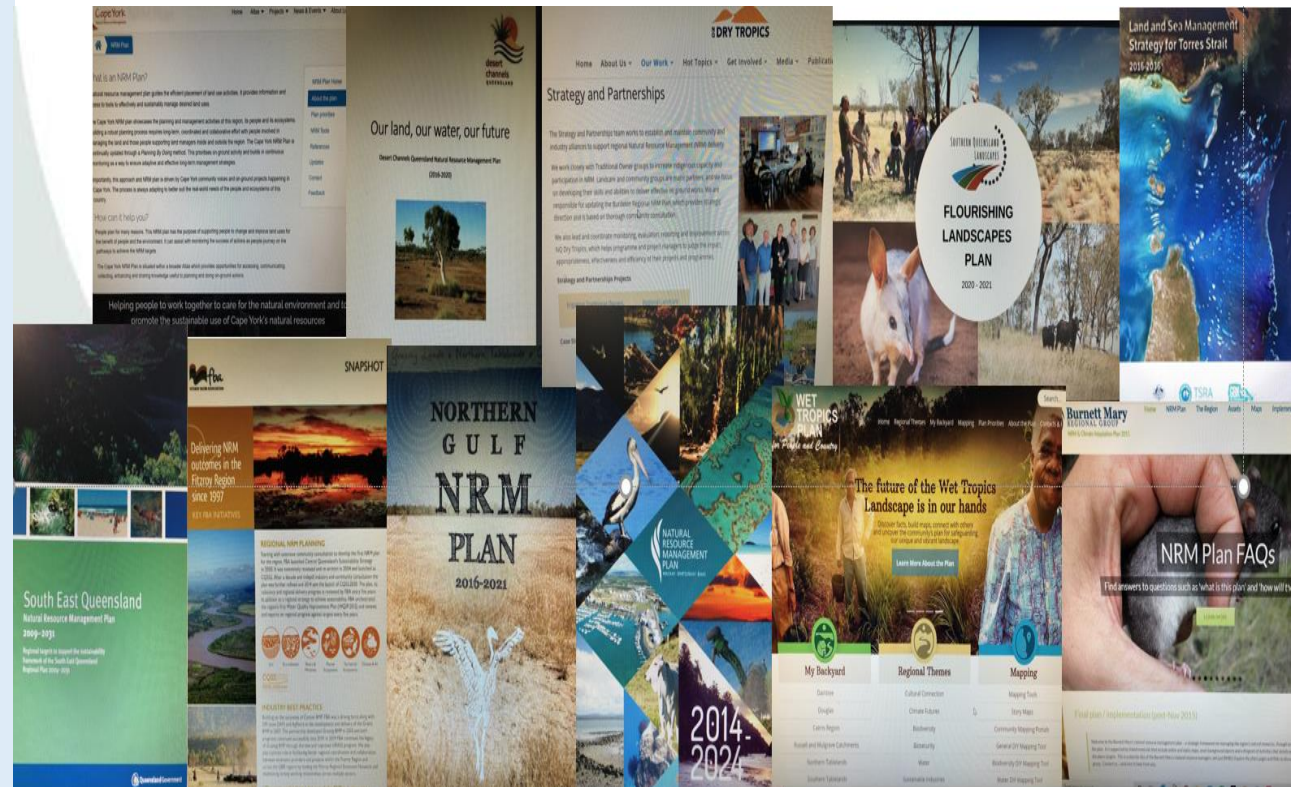




# Roles of Regional NRM Organisations

Regional NRM organisations build partnerships with a diverse range of other delivery partners to integrate activities that are delivered in a place, whether that be a catchment, sub-catchment (major waterway), or a farm:

- ✓ Natural disaster recovery
- ✓ Weed management
- ✓ Feral animal control
- ✓ Habitat restoration
- ✓ Revegetation / Tree planting
- ✓ Fire management
- ✓ Carbon sequestration (carbon farming)
- ✓ Water quality programs
- ✓ Monitoring and data collection
- ✓ River and creek line restoration
- ✓ Coastal / marine habitat restoration
- ✓ Sediment/erosion control works
- ✓ Property management planning
- ✓ Advocacy
- ✓ Policy development
- ✓ **Regional NRM Planning**



# The “value” of regional NRM plans in driving place-based solutions

*Regional NRM Plans are the product of a rigorous planning process...*



*...ensuring they are useful for...*

Identifying opportunities and targeting investment

Aligning with local/ regional /national priorities and policy

Achieving value for money

Maximising impact through system response

Leveraging funding  
Identifying potential partners

Reference for regional development eg. local planners

Developing community support

Avoiding perverse outcomes

Providing continuity through start stop investment



# NRM AND SOIL HEALTH



Regional natural resource management organisations are drivers of change for soil health and improved land management. Soil degradation and loss of topsoil is a significant challenge facing producers and has implications for waterway health and carbon storage. These featured projects represent a small snapshot of the many large and small soil health activities being delivered by regional NRMs across Australia.

## Healthy Soils Sustainable Farms

This project helped farmers take the next step in production efficiency and reduce the impacts of erosion, salinity and nutrient run-off. West Gippsland Catchment Management Authority (WGCMA) engaged with around 900 people and worked with them to develop and implement management plans for soil, nutrients and grazing. As a result of project activities, 119 farms adopted sustainable practice change. Addressing production inefficiencies brings economical benefits and helps reduce the impact of environmental pollutants entering waterways and the atmosphere.

Feedback from participants indicate that adopting these new practices has improved their bottom line and the health of their soil.

Led by WGCMA with NLP funding (2013-2018)  
<https://www.wgcma.vic.gov.au/for-farmers/healthy-soils-sustainable-farms>

### HIGHLIGHTS

- 10,100 ha improved management practice implemented
- 35,205 ha changed to sustainable practice
- 71 events held across the region



## Healthy Soils, Productive Pastures

Greater Sydney Local Landcare Services is helping to improve and protect the region's soil condition, biodiversity and vegetation by providing landholders with funding incentives to carry out on-ground projects on their property and adopt best practice land management strategies.

While COVID restrictions have hampered the planned series of field trials, demonstration days, and field days to showcase best land management practices, and workshops on topics such as pastures and soil health, Greater Sydney LLS are planning three soil health demonstration sites and a soil and pastures workshop in 2021.

Led by Greater Sydney LLS through NLP funding  
<https://www.lls.nsw.gov.au/regions/greater-sydney/key-projects/healthy-soils-productive-pastures>

## Sustainable Soils for the Burdekin

Across nearly 9,000 ha in the Burdekin, 69 farming entities have adopted sustainable practices to increase productivity, improve ecosystem services and build climate change resilience. This is thanks to a five-year Sustainable Soils project that built on relationships with industry, local government, Traditional Owners and Landcare groups to strengthen the understanding of soil health and management within the Burdekin catchment grazing and grower community.

Engagement and extension activities helped participants build and share knowledge about sustainable soil practices and five producer peer groups were developed. Issues associated with sediment and nutrient loss were addressed through improved grazing and cropping practices.

Led by NQ Dry Tropics, with NLP funding (2013-2018)  
<https://www.nqdrytropics.com.au/projects/sustainable-agriculture/sustainable-soils-project/>

### HIGHLIGHTS

- 10 trial sites for improving soil health across at least 2,400 ha
- 25 workshops delivered to 265 attendees
- Assisted 130 grazing/intensive cropping land holders to conduct soil resource management self-assessment.



## Building Resilient Agricultural Systems on Kangaroo Island

This project is empowering farmers to naturally build soil health and soil carbon for improved production and profit, and for better environmental and social outcomes. It is demonstrating practices and systems that increase ground cover and improve soil carbon and organic matter, which in turn improves water infiltration and plant nutrient availability.

There is a focus on holistic grazing managing; increasing species diversity in the paddock, valuing native vegetation, using cell and rotational grazing for optimum pasture production, while building long-term resilience to support adaptation to a changing climate.

Led by the Kangaroo Island Landscape Board through NLP funding  
<https://www.landscapesa.gov.au/land-and-water/building-resilient-agricultural-systems-on-kangaroo-island-project>



## Healthy Soils Healthy Rivers Program

Maximising nutrient-use efficiency and minimising the impacts of fertilisers on waterways is bringing benefits to producers and the environment in the Swan-River region through a collaborative effort between NRMs, farmers and industry to improve soil health and water quality.

This program was delivered by regional NRMs and State Government and supported landholders across multiple sub-catchments to improve production efficiencies and reduce fertiliser inputs. One land manager reported a 35% reduction in nitrogen use as a result of the program. Positive feedback from participants helped to attract additional funding (via Wine Australia) to expand the project to wine grape producers from other catchments.

A joint initiative between Perth NRM, Wheatbelt NRM, WA State Government and NLP (Round 1).  
<https://www.perthnrm.com/project/healthy-soils-healthy-rivers/>

### HIGHLIGHTS

- 130 participants involved in the program
- One-on-one support from a recognised industry-appropriate agronomist
- Program participants received a comprehensive nutrient management report



# Our role with the National Soil Monitoring Program

## Benefits of regional NRM involvement:

- We cover the whole country including many regional and remote locations.
- Potentially aligns with existing soils projects (or new ones funded under the Climate-Smart Sustainable Agriculture NHT theme).
- Continues to build soils expertise in regional NRM organisations (adds to our value proposition).
- Adds to our service offer to farmers and contributes to conversations about our other projects/initiatives and ties this into a farming systems approach.
- Builds relationship with CSIRO (State Agencies and Soils Science Australia), and continues to build network of farmers and other relevant service providers.







# Any Questions?



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