

Public Good NRM Surveys



Benchmarking Pilot Farms

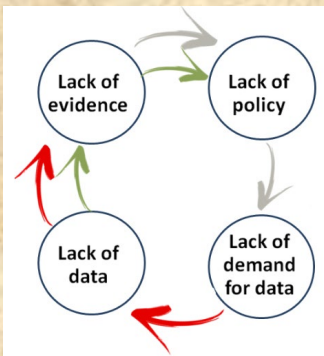


GLENRAC

Public Good NRM Surveys

Data vacuum of NRM on farm contributions.....

- Australian Bureau of Statistics (ABS) Agricultural Census 2020-21: no land management practice information was collected
- ABS Rural Environment and Agricultural Commodities Survey (REACS) “Land Management and Farming” last release 2016-17 that included land management practices
- ABS Agricultural Resource Management Survey (ARMS) 2011-12 (Land Management Practices survey): First and only issue
- Trends in on-farm biodiversity management in Australia’s agricultural industries only surveyed through ABS ARMS in 2007-08 and 2009-2010
- ABS Natural Resource Management (NRM) on Australian Farms (last release 2008)



Sustaining the environment
Australians aspire to manage the environment sustainably for future generations

Overall progress? Resources Land use Water use Waste
Technology and Strategies Climate

A data gap currently exists for sustainable land use

In MAP there are several types of data gaps where:

1. the concept is not yet developed enough to measure;
2. the concept is important for progress but may not lend itself to meaningful measurement;
3. there is no data of sufficient quality to inform on progress; or
4. there is only one data point, so a progress assessment cannot be made.

In order to capture the spirit of this idea in a measure, further development will need to be undertaken. We will continue to explore options for a suitable indicator in the future.

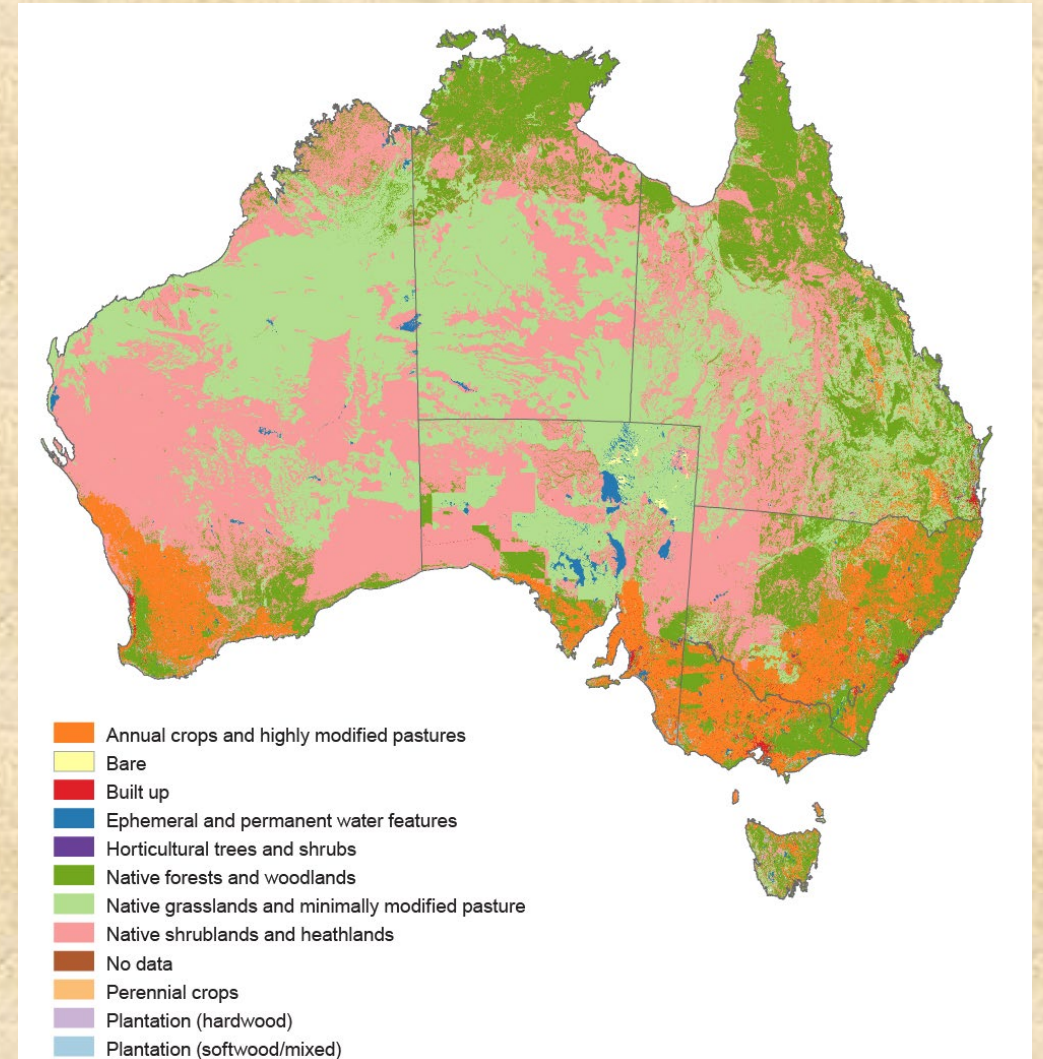
The Invisible Land Steward

Agricultural land-use in NSW encompasses 81% of the state, making farmers the biggest contributors of ecosystem services and the largest stewards of the environment in our state.

Basically, farmers are not paid for the ecosystem services they provide for the greater good.

The number of farms in NSW is estimated to be 24,509 which are predominantly family farms.

How can we make the current ecosystem services stewardship contribution of NSW family farms visible when there is a data vacuum?



“GLENRAC farmers public good NRM Survey”

Aims to document the public good contribution GLENRAC farmers make to natural resource management and estimate a value of those collective public good NRM activities.

This survey includes **two different activities**:

1. An online survey about the area of your farm and the different **land uses**
2. Documenting information (paper survey and online survey) about ‘**public good NRM**’ activities undertaken on the farm during 2021-2022



GLENRAC: Public Good NRM Survey

Glen Innes –Severn Shire is approximately 548,700 hectares in area.

In 2018, there were 1,859 rural properties in the Glen Innes – Severn Shire which represented 84% of the overall shire land value of \$1.2 billion.

The Glen Innes – Severn “State of the Environment” Report (2015) identified 70% of land use in the shire is agricultural.

GLENRAC has 1,000 members who can contribute to the survey to document farmers public good NRM contributions in the shire.

Imagine if we could achieve 50% of the rural area of the shire represented through GLENRAC members participating in the survey!





GLENRAC: Public Good NRM Survey “Land-Use”

40 farmers have contributed their land-use data to the survey to date. This represents 26,050 hectares land area (5% of the shire).

Multiple use of the landscape is identified from land use statistics collected so far (mainly multiple use between relatively natural environments and dryland agriculture).

Of the 40 properties collectively:

- 17.5% of land is managed for conservation and natural environment
- 81.5% of land is managed for production from relatively natural environments AND production from dryland agriculture and plantations
- 1% land is managed for irrigated agriculture/plantations, intensive uses and water features.

Approximately 50% of the 26,050 hectares is managed for conservation and natural environment (with some agricultural production included)

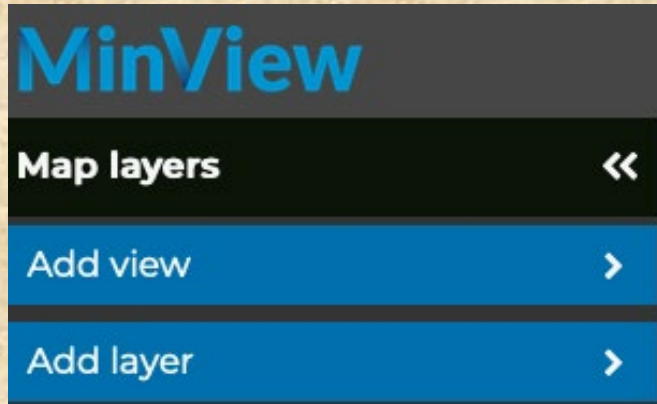


Benchmarking Natural Capital Pilot Farms



Phase 1: Natural Assets Mapping

- Publicly available GIS mapping data of pilot farms from 5 different sources (regional scale)
- Publicly available methodologies (Australian and NSW Government, agreed standards, indicators, methods)
- Landholder guides to undertake synthesis of natural assets mapping data (5 modules)
 - Preliminary to field assessment of natural asset condition & farm scale data collection



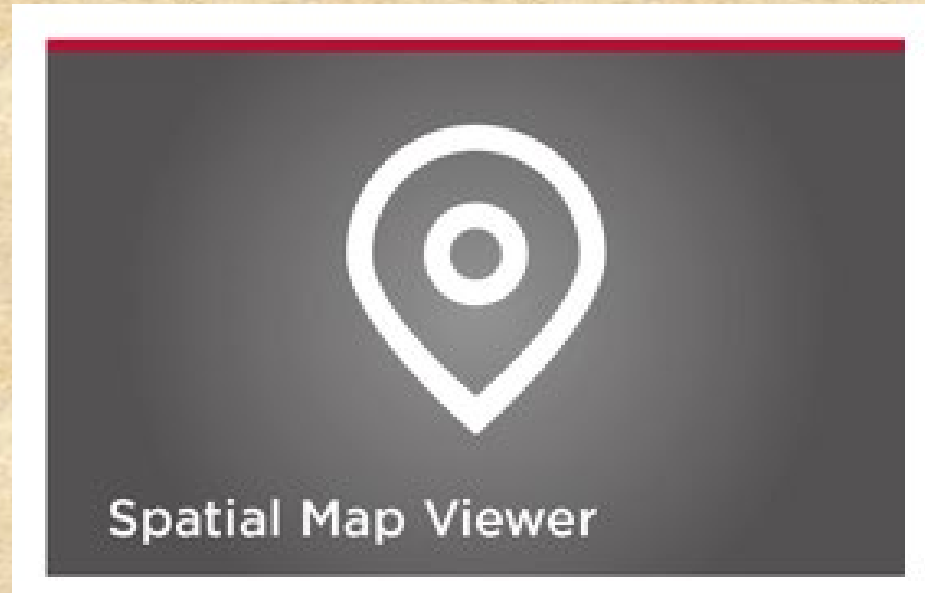
Biodiversity Values Map and Threshold Tool

Variations in scale

Base map

Online system

Future: desktop GIS



SEED
The Central Resource for
Sharing and Enabling Environmental Data in NSW



Native Vegetation Regulatory Map Viewer



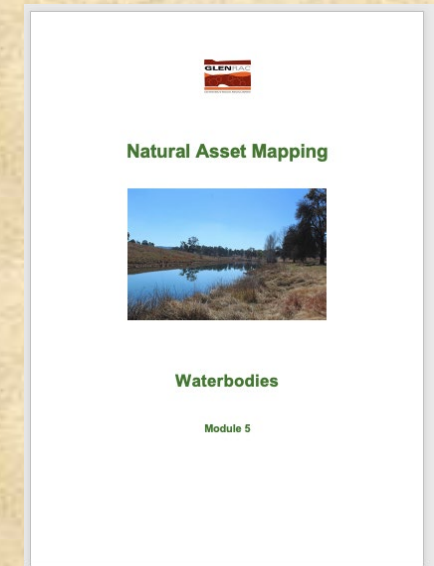
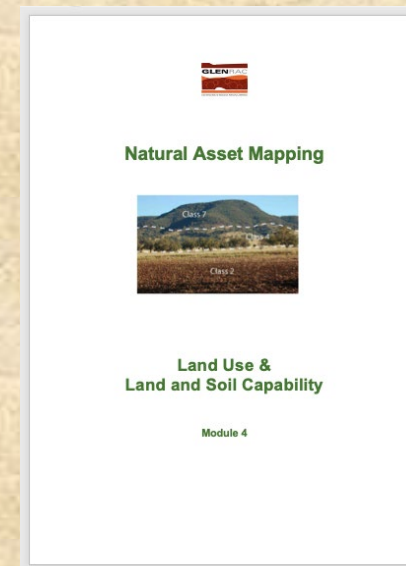
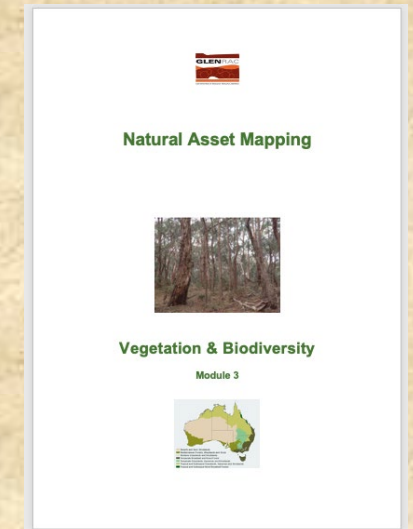
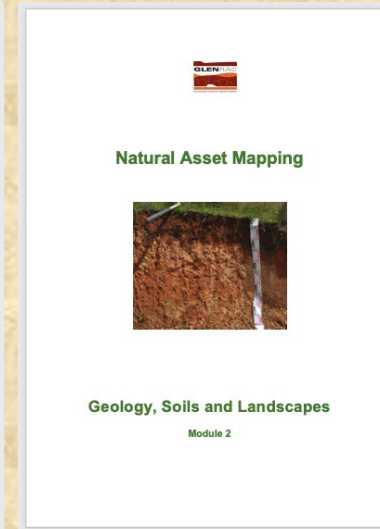
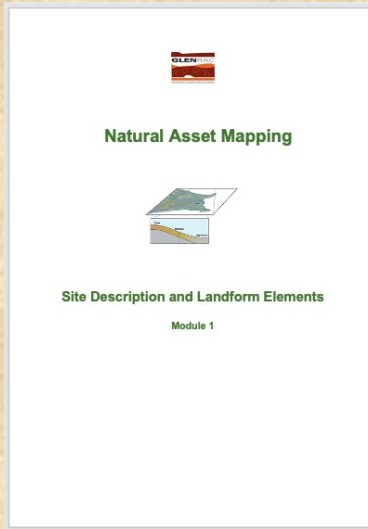
Phase 1: Natural Assets Mapping

Resources

- Folder:
 - 5 printed modules
 - Support documents
 - Templates
- Printed Map layers (A3) & acetate sheets
- Marker Pens & clips
- CD/USB:
 - Support documents
 - Additional support materials
 - Modules
 - Templates
 - Map layers (& base map)

Nov 12th 2021

Natural Asset
Mapping





Phase 2: Natural Asset Description & Conditional Assessment

- Using Natural Asset mapping layers & your local knowledge as a guide
- Publicly available field description and conditional assessment methodologies consistent with Government and scientific agreed standards, indicators, methods
- Undertake description and assessment of:
 - Soils
 - Native Vegetation
 - Biodiversity – Conservation
 - Riparian zones
 - Water bodies

Feb 7th 2022
Geology, Soils &
Native Vegetation

Feb 16th 2022
Biodiversity
Conservation,
Waterbodies

May 5th 2022
Water
Quality
Monitoring

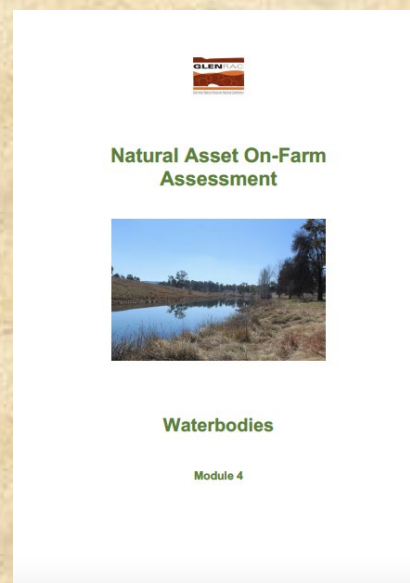


Phase 2: Natural Asset Description & Assessment

Resources

- Folders:
 - 5 printed modules
 - Presentations
 - Printed map layers
 - Support documents (electronic & printed)
 - Field data sheets
 - Laminated field guides

Field data collection support
Administrative support
Lab soil tests
Farm workshops





Benchmarking Natural Capital Pilot Farms

Final stages:

- Pilot farms collected all field data for description and assessment of natural assets
- Methodology assessed by NSW LLS (hoping to have NSW DPI feedback by early September)
- Natural Capital reports being prepared for each of the 6 Pilot Farms
- Recommendations for future amendments to the methodology from feedback of pilot farms, NSW government review and lessons learnt along the way
- Project ends 30th September 2022: what is next?