



# Free tools available for regional NRM planning

**T**HE AUSTRALIAN Greenhouse Office has just released a National Carbon Accounting Toolbox and Data Viewer.

These products have great potential for project or regional Natural Resource Management (NRM) planning. They were developed jointly with the CSIRO, the Australian National University and Geoscience Australia, and are supported by NASA.

The National Carbon Accounting Toolbox (available on CD) provides a set of tools for tracking greenhouse gas emissions and carbon stock changes from land use and management.

It will ultimately help land managers monitor emissions effectively and identify more sustainable (less emissions-intensive) land management practices.

The Toolbox provides access to the Full Carbon Accounting Model (FullCAM), including modelling software and supporting technical documentation used to construct Australia's national greenhouse account for the land sector.

FullCAM is derived from the National Carbon Accounting System, Australia's world-leading, land-based emissions accounting system. It accounts for changes in major greenhouse gases (including carbon stocks), nitrogen cycling and human-induced land-use practices.

By modifying inputs, users may identify changes in emissions resulting from: using of different plant species or soil types; soil cultivation; fire management; fertiliser application; changes in climate; and other activities.

Users may access carbon accounting data for various plant species

and land management systems, historic climate records, as well as search all technical reports relating to development of the National Carbon Accounting System.

For land managers, this will ensure their project or regional emissions accounts are determined on a similar basis to Australia's official recording of emissions for the land sector. It will also ensure they are able to make informed decisions on how their actions affect the atmosphere.

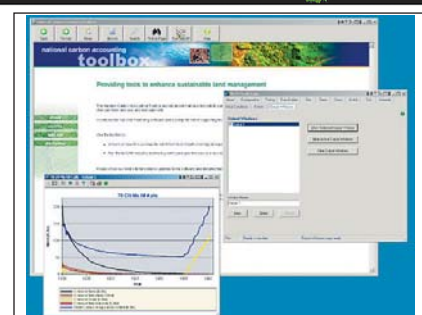
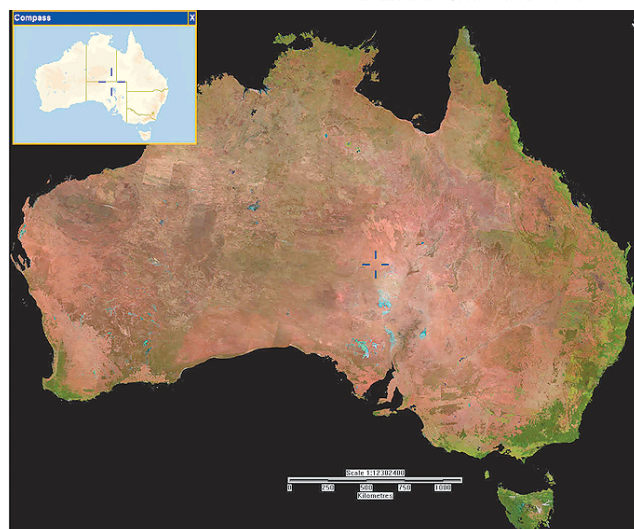
Coupled with the Toolbox is a Data Viewer (available on DVD) that contains a unique 30-year visual record of landscape and vegetation change in Australia since 1972, as seen through several national snapshots of satellite data.

Users can zoom into any area of the continent and compare satellite images and climatic data between years. This provides a quick, ready means for assessing change over three decades based on calibrated imagery of the National Carbon Accounting System.

For instance, the Data Viewer can be used at the property or regional scale, to assess:

- where tree cover has changed;
- which areas have changed the most in recent times;
- where tree planting has been most effective;
- how much tree cover remains along the river systems; and
- which areas should be targeted for rehabilitation.

In many areas, the Data Viewer will show considerable change from drought effects in recent times. Included is a handy measuring tool that can be used to assess relative



**TOP:** Satellite image from the Data Viewer.

**ABOVE:** An image of the website for the National Carbon Accounting Toolbox.

change in tree cover or water bodies in different regions.

The Data Viewer also provides climate statistics for each region, including average climate trends (such as rainfall and temperature).

The satellite images and data may also be used on handheld palm-top computers, providing an invaluable aid to vegetation planning for those involved in field work.

## Useful contacts

For free copy of these products, email <ncas@greenhouse.gov.au>. Allow two weeks for delivery. For more information, visit <www.greenhouse.gov.au/ncas>.

For detailed satellite imagery (for example, 1989 and 2002), visit the Australian Natural Resources Atlas website <audit.deh.gov.au/mapping/index.cfm>.

For complete satellite data library (13 national snapshots taken over the past 30 years), available at minimal cost of transfer via Geoscience Australia, email <ncas@greenhouse.gov.au>.