

2014 Regional Snapshot

How much carbon is stored in our trees?

As trees grow they convert carbon dioxide from the atmosphere into living vegetation. This reduces greenhouse gases in the atmosphere and slows global warming. Trees also provide habitats for native plants and animals, improve air and water quality, enhance our recreational areas and provide us with wood and other products.

Since European settlement, extensive areas of our native vegetation have been cleared for agriculture and other human activities (reported [here](#)). This has reduced the amount of carbon stored in remnant native trees to about 32 per cent of historical stocks in the South Australian Murray-Darling Basin NRM region.

Estimates of our current carbon stocks are limited to the above-ground portion of remnant woody trees and larger shrubs in the state's agricultural zone. This excludes large areas of the NRM region, which are remnant grasslands, low shrublands and very sparse tree/shrub communities. Carbon estimates in the arid areas of the NRM region are therefore subject to some inaccuracy.

Carbon is also stored in the soil, as reported [here](#).



Trends of carbon storage in remnant native trees



State target

Maintain the productive capacity of our natural resources

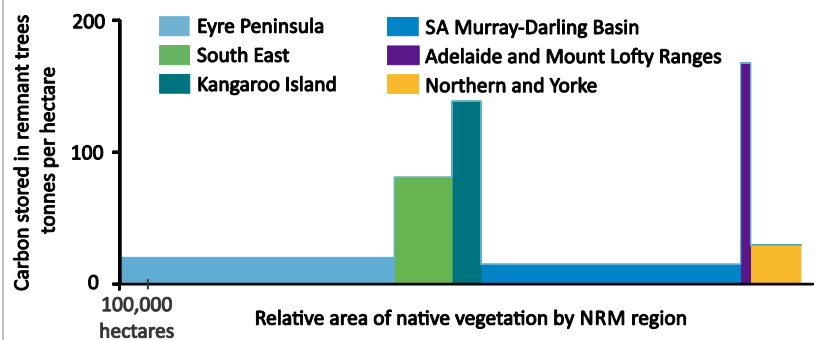
Trend (2007–12)

Stable

Since the protection of native vegetation by legislation in 1991, carbon storage has remained fairly stable

Carbon stocks have been relatively stable since remnant native vegetation was protected in 1991. Short term variations are mainly influenced by climate and fires.

The SA Murray-Darling Basin NRM region has on average 15 tonnes of carbon stored in each hectare of remnant native plants (see graph on right). Carbon storage in the agricultural areas of the NRM region are higher, with an average of 23 tonnes of carbon per hectare.



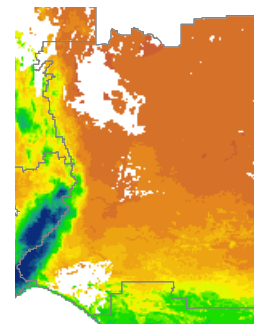
Where we are at (2012)

Poor

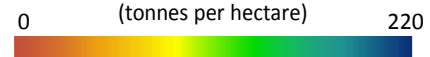
28 million tonnes of carbon are stored in remnant native trees

Restoring native vegetation and growing trees for carbon crops can increase our carbon stocks and offset greenhouse gas emissions. With only 32 per cent of historical carbon stocks remaining, there is scope to increase our carbon stocks.

Areas of higher rainfall and good soil quality have the highest potential for carbon storage (map on right), but they also have the highest agricultural productivity. In choosing between using land for agriculture, revegetation with native plants or carbon cropping, we need to carefully consider the trade-off between the need to increase our carbon stocks with the need to maintain agricultural productivity. However, with improved assessment of land use capability it is possible to identify suitable areas for revegetation within all agricultural areas.



Potential carbon storage (tonnes per hectare)



Reliability of information



Very Good

Further information: [Technical information for this report](#), [Carbon in vegetation](#)