Fact Sheet

11 Native Vegetation

Biodiversity

Native Vegetation Issues

Native vegetation is a precious part of our environment. It provides essential habitat for native animals and is very important in preserving our ecosystems. Native vegetation is important to our environment for the following reasons:

- stabilising the soil,
- absorbing greenhouse gases such as carbon dioxide from the atmosphere (carbon sequestration),
- helping to regulate climate and improve water quality,
- preventing dryland salinity through its influence on groundwater levels, and
- providing valuable shelter and wind-breaks for stock and crops.

Native vegetation has been put under a lot of pressure since European settlement, leading to its degradation. In urban areas, development has meant that much of the native vegetation has been replaced with non-native vegetation, buildings and infrastructure (roads). In agricultural areas, clearance has left less than one third of South Australia's original vegetation intact.

Other pressures that affect native vegetation are:

- grazing and trampling by sheep, rabbits, goats and camels,
- invasion by weeds such as bridal creeper and blackberry,
- changed fire regimes,
- plant pathogens such as *Phytopthora Cinnamomi* and Mundulla Yellows,
- firewood collection,
- increasing soil salinity and rising groundwater,
- altered water flows in rivers and streams, and
- pollution.

Declining water quality along with increasing water extraction and drainage for agricultural purposes is affecting the health of aquatic vegetation in rivers, streams and wetlands throughout the state. Marine vegetation such as seagrasses and mangroves are suffering the effects of poor water quality and increasing coastal development.

Trends

Native vegetation area is **stable.**

The area of land held under Protected Status has **increased** 1% since 2003, but is slowing.

Indigenous revegetation activity is **decreasing.**

"Native vegetation is an important part of our natural environment and essential to sustainability."

Native Vegetation

What is the Current Native Vegetation Situation?

Condition indicators

Extent and condition of remnant terrestrial vegetation

Around 86% of the state is covered in native vegetation but the majority occurs in the pastoral regions and Aboriginal lands which are generally arid regions. Less than one third of the original native vegetation occurs in the agricultural areas of the state – most has been cleared for agricultural and urban development.

A quarter of the state is under some kind of protection and around 83% of the state's protected areas are in National Parks and Wildlife (NPW) reserves, with another 2% through Heritage Agreements. The remaining 14% are indigenous protected areas or native forests. Some regions in the state have been cleared more than others because the land is more suited to agricultural development.

> "The impact of firewood removal on habitat and biodiversity within South Australia needs to be addressed."

Condition of native vegetation

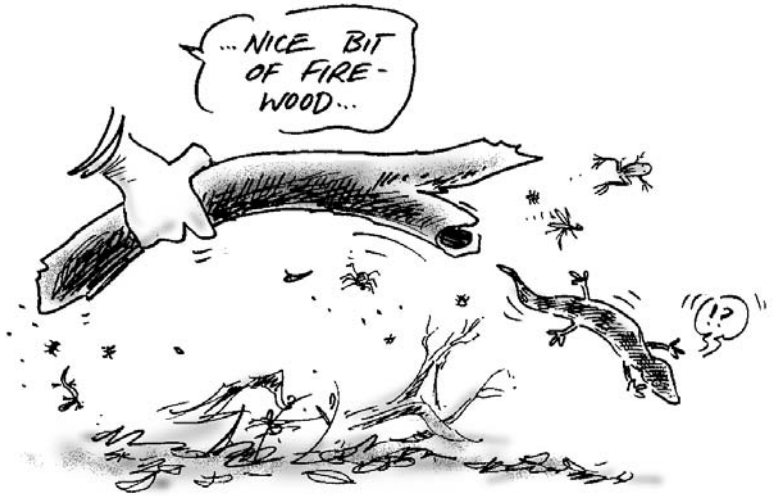
We now have improved information about the condition of native vegetation in the pastoral areas of South Australia. Some permanent monitoring sites have been established to monitor the condition of soil and vegetation over time. In some pastoral areas, inappropriate grazing practices over the last 150 years have led to land degradation, a loss of potential production and impacts on biodiversity.

Firewood removal

The impact of firewood removal on habitat and biodiversity within South Australia needs to be addressed. Unsustainable activities include the collection of fallen timber, removal of dead branches and hollow logs on live trees, and the cutting of standing dead trees. Wood typically collected for firewood provides shelter for many native species such as small mammals, lizards and insects, and dead trees can provide important nesting sites for birds. Remnant woodlands that are close to cities are under the greatest pressure. Currently, there are no controls on the collection of dead timber on privately owned land and this is likely to be having an impact on the wildlife habitat in South Australia.

Fire management

Fire can affect native vegetation and its ecological health. Bushfires can also have devastating effects on the community. Poorly managed native vegetation, from a fire perspective, represents an unacceptable risk to human life and property, as well as to the health of ecosystems. To manage some areas, controlled burns are undertaken by Forestry SA and the Department for Environment and Heritage, and native vegetation is monitored before and after a burn. Many species of flora and fauna are well adapted to cope with fire and some even rely on it.



Native Vegetation

Responding to Native Vegetation Issues

Area of land held under protected status

Since 1998, the area of land held under some form of protection has increased from 21.4% of the state to 25%. This increase is mainly due to the creation of four Indigenous Protected Areas: Nantawarrina in the northern Flinders Ranges, Yalata on the edge of the Nullabor Plain and Walalkara and Watarru in the Anangu Pitjantjatjara lands to the north-west of the state. Indigenous Protected Areas now comprise 14% of all protected areas in South Australia.

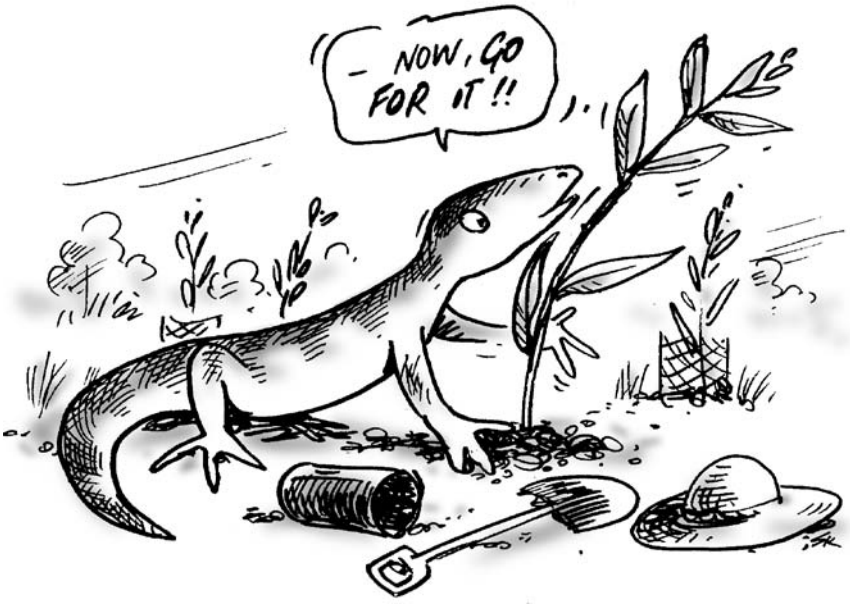
The Department for Environment and Heritage (DEH) manages public protected areas and supports landowners with Heritage Agreements and Indigenous Protected Areas. Many new Management Plans that guide the care of DEH managed reserves have been finished with 189 adopted by 30 June 2008. There has been an increase in the rate of developing Management Plans from approximately three per year in 2003 to an average of 19 Plans completed per year between 2004-05 and 2007-08.

The Native Vegetation Act 1991 and Heritage Agreement Scheme

The **Native Vegetation Act 1991** is in place to protect, conserve and enhance the native vegetation in our state. This legislation limits the clearing of native vegetation and encourages its re-establishment in areas that may have been cleared or degraded. The Native Vegetation Act 1991 also provides incentives to landholders to help them manage the native vegetation on their land through the Heritage Agreement Scheme. In this program, landholders enter into agreements with the state government to protect native vegetation areas. Since 2003 there has been a 3% increase in the area managed through the scheme, with a total area of 576,958 hectares covered. Heritage agreements are found mainly across the agricultural regions of the state and protect relatively significant native vegetation communities. To assist landholders under heritage agreements with the conservation management of their land, financial grants have been provided to help with projects such as fencing.

Area of revegetation

The definition of revegetation includes a variety of activities ranging from the re-establishment of native plants to commercial forestry, the establishment of fodder shrubs and farm forestry. Over a third of all revegetation during 2006 was conducted using indigenous species.



Taking Action for Native Vegetation

- Contact a nursery or seed company to find out which varieties of trees and shrubs are local to your area.
- Plant trees and shrubs in your garden that are indigenous to your area.
- If possible, use seeds from local bushland so that we can really preserve our local native vegetation.

Impacts of

Losing Native Vegetation

Land Resources

Losing native vegetation increases dryland salinity. Deep-rooted native vegetation helps to maintain or minimise the rise of saline groundwater. Its removal causes groundwater levels to rise rapidly and bring naturally occurring salts to the surface. This is one of the main causes of dryland salinity. Native vegetation also helps to reduce soil erosion and improve water quality.

Atmosphere

Native vegetation helps to reduce greenhouse impacts. Plants absorb carbon dioxide (a major greenhouse gas) from the air. Removal of native vegetation will mean greater concentrations of carbon dioxide in the atmosphere.

Inland Waters

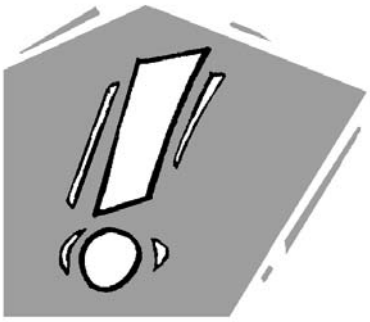
Native vegetation helps to protect soil and water resources and is very important for catchment health and good quality water.

Economic

Native vegetation provides shelter for stock, windbreaks that prevent damage to crops, and habitat for valuable crop pest predators. Loss of native vegetation may lead to reduced agricultural production.

Culture

Native vegetation is an important part of the Australian landscape and is important for Aboriginal culture, leisure and recreation.



Attention!!

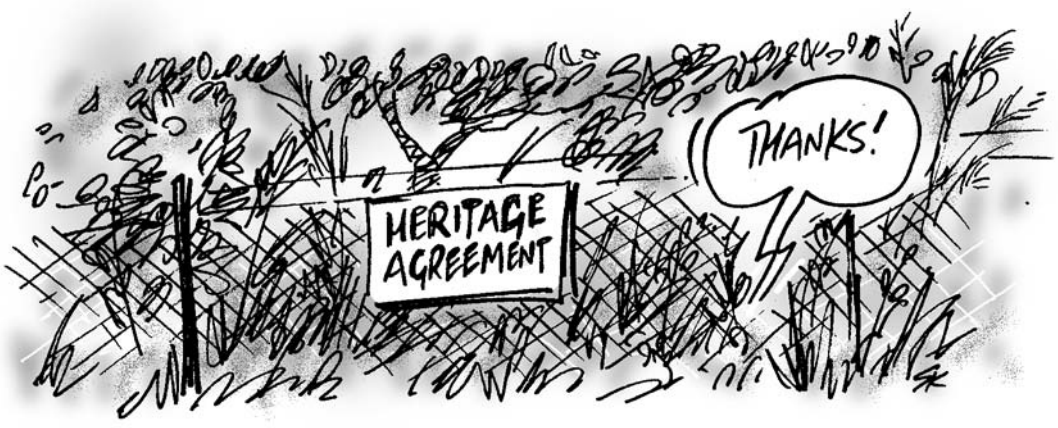
Landscape Approach to Native Vegetation

Revegetation should take a landscape approach towards nature conservation, and this means planning the re-establishment of native vegetation across large areas. Proper planning of revegetation can ensure that areas of native vegetation are connected and help to maximise the habitat area for plants and animals. Many areas of native vegetation are isolated and at risk of further fragmentation or degradation. In the past there has not been enough emphasis on managing the state's native vegetation as a whole.

It is important to remember that just planting new trees and shrubs, without coordinating with other revegetation efforts, is not the best substitute for native vegetation. Five biodiversity corridors have been established across both public and private land through the NatureLinks program. These corridors build on existing large scale ecological restoration projects and link regional development, natural resource management and landscape scale biodiversity.

It is also important to note that revegetation can have negative effects in some cases. The expansion of Tasmanian Blue Gum plantings for wood chipping and carbon credits has raised issues about the sustainable use of groundwater resources. In the south-east of the state, these plantings are accessing shallow ground water and having an impact on local surface waters.

> **"It is important to remember that just planting new trees and shrubs, without coordinating with other revegetation efforts, is not the best substitute for native vegetation."**



Research Ideas

about Land Use

1 What is 'native vegetation'?

2 How have human activities impacted on native vegetation in your community, South Australia, Australia and globally?

3 How has native vegetation loss affected the environment?

4 What ecosystem services does native vegetation provide?

5 What might happen in the future if things continue as they are?

6 What are government, business and industry doing to address native vegetation issues?

7 What can we do individually, or in communities, to reduce our impact on native vegetation in South Australia?

8 What is the difference between using native and indigenous species for revegetation?

References

Williams, J. (2005). Native vegetation and regional management: A guide to research and resources. Greening Australia, Canberra.

Resources

For more detailed information on the issue and actions you can take see the State of the Environment report for South Australia 2008.

This is available at:
www.epa.sa.gov.au/soe

This fact sheet is part of a set of 20 fact sheets about the key environmental issues identified in the State of the Environment report 2008, produced for the Environment Reporting Education Resource. You can access the fact sheets and learn more about taking action for the environment at the Education Resource website: www.epa.sa.gov.au/soe.
For more information call the Environmental Education Unit of the Department for Environment and Heritage (08) 8463 3911.

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