

information sheet

SUSTAINABLE LAND USES

Carbon emissions information sheet

Please note: While all care has been taken in the preparation of this information sheet, it is not a substitute for legal advice in individual cases. The content of this information sheet is current as of August 2015.

This information sheet is one of a series on sustainable land uses which have been developed for Local Aboriginal Land Councils (**LALCs**) by the NSW Aboriginal Land Council (**NSWALC**). Copies of the information sheet are available from www.alc.org.au or by calling the NSWALC Policy and Research Unit on **(02) 9689 4444**.

What are carbon emissions?

When fossil fuels (such as gas, coal or oil) are burned, carbon dioxide is released into the atmosphere. In a natural carbon cycle, carbon dioxide is transferred back to plants and trees. However, fuels are being burned at such a rapid rate that the levels of carbon dioxide being produced cannot be soaked up by plants and trees that are alive now. The two primary sources of carbon emissions are from burning fossil fuels used for electricity generation and petroleum used for transport.

Terminology and abbreviations

The terms “carbon emissions” and “greenhouse gas (GHG) emissions” are used interchangeably in everyday speech. Similarly, sometimes the term “carbon” is used as shorthand for either carbon dioxide or carbon dioxide equivalent (**CO₂e**).

“Carbon credit” is a generic term that describes a specified unit of reduction or absorption of carbon compared with the normal way of doing things. A credit is “created” or “awarded” when an approved action is taken which reduces GHGs in the atmosphere.

For example: 1 carbon credit = 1 tonne reduction/absorption of carbon dioxide.

What is climate change?

Over the past 100 years, the global temperature has increased by about 0.7°C. Since 1910 Australia’s average temperature has risen by about 1°C (Department of Climate

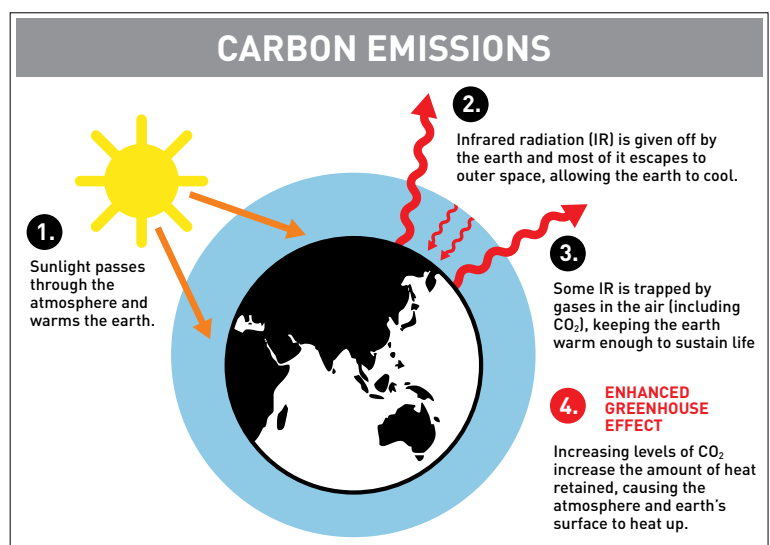
Change and Energy Efficiency <http://www.environment.gov.au/climate-change>). Although these increases seem small, they have a big impact on the world’s climate. Climatologists consider these temperature increases to be related to human production of GHGs. The GHGs absorb heat from the sun and reduce the amount of heat escaping into space. This extra heat is the main cause of changes in the climate.

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Difference between climate change and global warming

'Climate change' refers to clear, sustained changes in temperature, precipitation, atmospheric pressure or winds over several decades or longer. While changes in climate can be influenced by a range of factors, the United Nations Framework Convention on Climate Change uses the term 'climate change' to refer to human-induced shifts, based on a wide range of data available.

'Global warming' refers to an increase in average temperatures at the surface of the earth. It is not a technical term. Most climatologists consider that the global warming we are experiencing is the result of human activities (particularly increased greenhouse gas emissions). However, global surface warming is just one aspect of the way climate is being affected by human activity (source: http://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Library/Browse_by_Topic/ClimateChangeold/theBasic/climate).

Impacts of climate change

Some changes include increases in the air and ocean temperatures, melting of snow and ice and rising global sea levels. Ten of the hottest years ever recorded were in the last 14 years and the hottest was in 2005.

Considerable research has shown that Australia is very vulnerable to the effects of climate change. Australia is already the driest inhabited continent on earth, heavily exposed to the dangers of extreme heat and drought.

Over the next 40-80 years climate change is predicted to increase average temperatures in NSW by 0.7-6.4°C and rainfall is likely to decrease. Projections suggest an increased incidence of hot days, bushfire and intense storms.

Carbon Management

Australia is participating in international and regional activities that contribute to the global effort to respond to climate change. Some of these actions are listed below:

- Australia joined an international treaty called the United Nations Framework Convention on Climate Change (UNFCCC).
- Australia ratified the Kyoto Protocol, which is an international agreement that sets targets for reducing carbon emissions.
- Australia joined the Reducing Emissions from Deforestation and Forest Degradation (REDD) project.

What is a carbon sink forest?

Carbon sink forests are usually small plantings incorporated into existing agricultural land in less productive areas. Carbon sink forests are grown for the purpose of absorbing and storing carbon dioxide from the atmosphere. The carbon is stored in the leaves, soil and roots of trees with forests absorbing more carbon than they release. These types of forests are important in counteracting Australia's carbon dioxide emissions. This process of absorbing carbon from the atmosphere and directing it into a carbon "sink" such as a growing forest is called "carbon sequestration". (Department of Climate Change and Energy Efficiency)

Carbon sink forests offer many benefits such as income for landowners, improving biodiversity, stabilising soils, managing salinity and boosting farm productivity.

Changing regulatory environment

Laws, programs and policies relating to carbon emissions are extremely vulnerable to changes in the political sphere. In 2012 the Australian Government established a carbon tax under the Clean Energy Plan, with the intention of transitioning to a national emissions trading scheme by 2014. However, the carbon tax and a number of mechanisms created under the Clean Energy Plan were repealed in 2014. NSW, which had previously established a State Greenhouse Gas Reduction (Abatement) Scheme, has also now repealed this legislation. It is important to bear in mind that this volatile policy environment may continue to cause changes to carbon emission reduction schemes.

At the time of writing (August 2015), the central instrument of the Australian Government's carbon emissions reduction efforts is through the Emissions Reduction Fund. This scheme offers some financial incentives to businesses and landowners to offset carbon emissions.

Emissions Reduction Fund

Aboriginal landholders, businesses and LALCs may be able to take advantage of opportunities under the Emissions Reduction Fund to offset carbon emissions and receive financial benefits. Under the scheme, quantifiable and approved reductions in carbon can be reported and verified, and subsequently sold to the Clean Energy Regulator, on behalf of the Australian Government. The scheme may cover the following sorts of activities:

- upgrading commercial buildings;
- improving energy efficiency of industrial facilities and housing;
- reducing electricity generator emissions;
- capturing landfill gas;
- reducing coal mine waste gas;

- reforestation and revegetating marginal lands;
- improving Australia's agricultural soils;
- upgrading vehicles and improving transport logistics; and
- managing fires in savanna grasslands.

(source: Australian Government, Department of Environment – Reducing Australia's Emissions <http://www.environment.gov.au/climate-change/emissions-reduction-fund/publications/reducing-australias-emissions>)

Aboriginal landholders, businesses and LALCs may want to consider whether their activities will make them eligible for the scheme, or otherwise consider undertaking projects eligible for financial compensation through the scheme.

The process is as follows:

1. Businesses choose an approved method and estimate the emissions' reductions that will be achieved through the project.
2. The project is registered with the Clean Energy Regulator and its viability is assessed.
3. The estimated emissions' reductions (quantified as Australian Carbon Credit Units or ACCUs) are sold at national auctions run by the Clean Energy Regulator. The Clean Energy Regulator will purchase all the lowest priced emissions' reductions, up to a certain price. A contract is signed to ensure delivery of payment upon achievement of emissions' reductions.
4. The project is carried out and payment is received.

However, please note that there is significant uncertainty surrounding the Emissions Reduction Fund, both in terms of the scheme being relatively untested and the future sustainability of the Fund. Any projects being considered will likely need expert economic, legal and other advice.

The Carbon Neutral Program

The Carbon Neutral Program is run by the Australian Government and allows businesses and organisations to be certified under the National Carbon Offset Standard (NCOS) as "carbon neutral". This means that the net carbon dioxide emissions from manufacturing a product, or an organisation's activities, are equal to zero. Landowners including LALCs can voluntarily join this program by running projects that will reduce carbon emissions, such as vegetation management and tree planting projects. Reductions in carbon emissions must be credited under the Emissions Reduction Fund. In turn, businesses and organisations will buy these credits from the landowner to offset their carbon emissions and gain a carbon neutral certification. The key advantages

to the landowner are the income from selling credits and the opportunity to improve land while protecting any significant Aboriginal culture and heritage sites which may be present on the land.

More information about the program can be found at: <http://www.environment.gov.au/climate-change/carbon-neutral/carbon-neutral-program>

Carbon Farming Initiative (CFI)

The CFI is an initiative that assists landowners to earn income from reducing emissions by changing land management practices. It supports methods that reduce carbon emissions and create ACCUs, which can then be sold under the Emissions Reductions Fund. The Carbon Farming Initiative has been transitioned to the Emissions Reduction Fund, which will now cover carbon farming projects such as:

- Reforestation and carbon sink forests;
- Management of methane from livestock;
- Biochar production used for carbon sequestration in soil; and
- Savannah fire management.

LALCs may want to consider whether there is any potential for carbon farming projects on their land.

The carbon economy setting is always changing and there is a risk that landowners may be lured into bad schemes by not being provided with enough information or being provided with misleading information. Aboriginal landowners need to research potential opportunities thoroughly, exercise caution in any financial dealings and seek professional advice. Landowners should seek advice to determine how development of carbon programs will interact with the Aboriginal Land Rights Act 1983 (NSW)(ALRA) and prevailing land rights. In particular, it is important to determine:

- Whether carbon programs constitute land dealings requiring NSWALC approval under Part 2 Division 4 of the ALRA.
- Whether changing land use (to a commercial or residential purpose) will result rate changes, levies or charges in relation to the land as described in Part 2 Division 5 of the ALRA or Clause 7 of the Aboriginal Land Rights Regulation 2002.

NSWALC can assist with answering any questions.

Further information can be found online at: <http://www.environment.gov.au/climate-change/emissions-reduction-fund/carbon-farming-initiative-project-transition>

Call: Policy and Research Unit on (02) 9689 4444

Email: policy@alc.org.au | **Web:** www.alc.org.au



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Benefits to Aboriginal landowners

Opportunities are available for LALCs to generate carbon credits from activities such as bushfire control, weed management, improving soil organic carbon and agroforestry.

Some methods of carbon offsetting that may be specifically interesting for LALCs, and include utilising Traditional Ecological Knowledge, include dry-season fire abatement.

mythbusters

myth: Global warming has stopped.

fact: All measurements of the climate system indicate the long term warming trend is continuing.

myth: Nothing I do will stop climate change.

fact: Individual action is required to make the impact needed on a global level. You can reduce your emissions with big changes such as driving less, or small changes such as changing the lights in your home to efficient bulbs. Every action counts

myth: Australia's actions on climate change don't matter because of the actions of other countries.

fact: Many developed and developing countries are taking action to reduce their emissions and adapt to change that is unavoidable. Many countries have set long term emission targets. The Kyoto Protocol provides evidence of action taken by the global community.

Available Grants

Grant	Purpose	Contacts and Information
Small Grants for Rural Communities Program	Open to not-for-profit organisations for projects that offer public benefit for small rural and remote locations in Australia, contributing to their development in social welfare, the environment or cultural areas.	Foundation for Rural & Regional Renewal (FRRR). Visit: http://www.frrr.org.au/programsDetail.asp?ProgramID=4 Phone (free call) 1800 170 020 Email info@frrr.org.au
Various grants under the Environmental Trust	Environmental Trust is an independent statutory body that supports exceptional environmental projects that do not receive funds from the usual government sources.	For information on available grants, go to: http://www.environment.nsw.gov.au/grants/envtrust.htm Phone: (02) 8837 6093 Email: info@environmentaltrust.nsw.gov.au
National Landcare Program	Part of the Australian Government's \$2 billion investment over 4 years in managing our natural resources, the National Landcare Program provides a national stream to fund Australia-wide natural resource projects, including Indigenous projects.	For information on the National Landcare Program, visit: http://www.nrm.gov.au/national-landcare-programme Phone: 1800 552 008

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