

THE EMISSIONS REDUCTION FUND

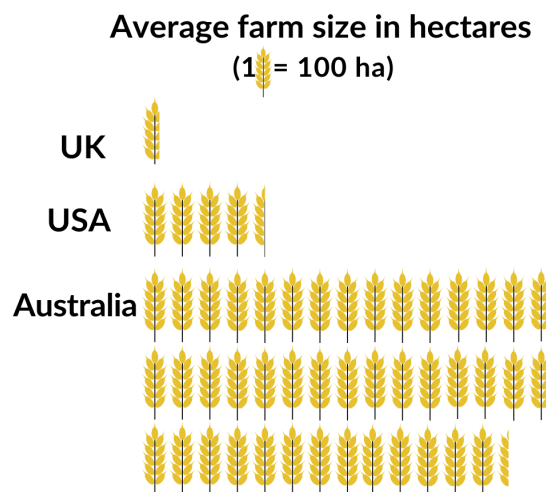
**CONSERVATIVE
ENVIRONMENT
NETWORK**

Summary

Australia has some of the most depleted soils in the world and a huge farming sector which is vulnerable to extreme weather events. These depleted soils make much of the land more vulnerable to both floods and droughts. In order to improve resilience in the soil and cut carbon emissions at the same time, the Liberal-National coalition government introduced the Emissions Reduction Fund in 2015. This fund has helped to support farmers sequester carbon and has provided an additional stream of income for many.

Background and the Direct Action Plan

The agricultural sector in Australia is significant. While it is only responsible for 2.5% of employment, it produces 12% of the exported goods and services in all of Australia⁶. Agriculture in Australia makes up around 13% of national emissions⁷, compared to a global average of 8.5%⁸. Politically, many farming areas are represented by the centre-right National Party which positions itself as a party of regional people and farmers. However, as with much of the Western world, the number of farmers has decreased in recent years as farms have consolidated and farm sizes have swelled. The average farm size in Australia compared to in the UK or the USA is shown below:



Most of Australia’s farming sector is aware of the threats posed by climate change to farms and understands the opportunities of embracing resilient and regenerative agriculture. Some organisations, including the Meat and Livestock Agency (MLA), want emissions from agriculture to reach net zero by 2030 while the Farmers for Climate Action group and the National Farmers Federation (NFF) both want to reach net zero

⁶<https://www.awe.gov.au/abares/products/insights/snapshot-of-australian-agriculture-2022#australian-farmers-receive-low-levels-of-government-support>

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<https://www.climatecouncil.org.au/resources/australia-agriculture-climate-change-emissions-methane/>

⁸ Agriculture and Horticulture development board (AHDB) Carbon: Greenhouse gas emissions from Agriculture

by 2050. These are all organisations that promote measures to help combat climate change effects and to promote sustainable farming practices in order to benefit their members.

Australia was governed by a centre-right government from 2013 to 2022, made up of the Liberal and National Coalition. This coalition is a formal collaboration between the two parties which stretches back to the beginning of the twentieth century with the National Party's predecessor the Country Party. The Liberal Party is larger and its support is primarily concentrated in urban areas, while the smaller National Party focuses on rural areas. As a result, when the Coalition is in government, the post of Minister for Agriculture has traditionally been given to a Nationals MP.

When the Liberal-National coalition came to power in 2014, it repealed the 2011 Clean Energy Act. This had some provision for carbon trading which would allow the buying and selling of credits that allow the permit holder to emit carbon dioxide. This would match the EU's carbon trading scheme and was a mandatory carbon market so industries not yet ready to transition would struggle. The Coalition's strategy to replace this was a new strategy called the 'Direct Action Plan'⁹. This plan was introduced to meet a target of a 5% reduction in emissions by 2020 in comparison to 1990 levels¹⁰. This had a large number of different components, including 'One million solar roofs', 'Green energy employment hubs' and 'Geothermal and tidal towns'. However, the centrepiece and single most impactful policy was the creation of the Emissions Reduction Fund.

The Emissions Reduction Fund

The Emissions Reduction Fund (ERF) was designed to pay for projects that would reduce CO₂ emissions for the lowest cost. The funding for these projects would be made through reverse auctions (where many sellers compete to underbid each other for the single buyer, the state to reward funding) which prioritised the lowest cost projects¹¹. This interacted with multiple different sectors as the projects could include things such as energy efficiency projects, cleaning up power stations, reforestation and the improvement of soil carbon¹². Some projects which were previously supported under the Carbon Farming Initiative, which supported some regeneration projects, were also rolled into the ERF.

There are multiple reasons why the system of carbon trading, i.e. buying and selling credits that allow the holder to emit carbon dioxide can be effective over systems like carbon taxes. Firstly, it directly targets the source of emissions under the so-called 'polluter pays' principle. This is the common sense idea that those who produce pollution should shoulder the burden of cleaning up the pollution. For the ERF this can be landfill sites that release methane or farmers who destroy soil carbon through overfarming. Secondly, the price mechanism is very effective: carbon trading means that financial resources go where there is most

⁹ https://www.edf.org/sites/default/files/australia_case_study.pdf

¹⁰ Ibid

¹¹ https://www.aph.gov.au/parliamentary_business/committees/senate/environment_and_communications/direct_action_plan/report/c05

¹² Ibid

innovation in carbon sequestration. It also means that businesses can adapt quickly to changing conditions. The emissions reduction fund was a non-mandatory carbon trading scheme, unlike the clean energy plan it replaced. One of the criticisms of mandatory carbon trading schemes is that it incentivises a reduction in carbon emissions in the short term but doesn't necessarily allow for the longer term planning to achieve long term sustainable reductions because there is a price pressure on the fastest method only. The ERF can help with this as farmers are able to plan ahead without the price pressure to focus on the longer term and enter into the carbon trading scheme only when ready.

The ERF was initially established with AUD\$2.55 billion, with the first auction being conducted in April 2015¹³. The most recent round of the emissions reduction fund in October 2021 offered AUD\$115.9 million worth of contracts, bringing the total funding for the ERF up to \$2.6bn. Auctions are conducted every six months in October and April. There are usually multiple sectors represented in the successful bids. The maps below show a representation of the number of agricultural and vegetation projects in Australian states and territories supported by the ERF. To date there have been 13 rounds of auctions, funding over 1,100 projects.

By the time of the 2020 review of the policy by the independent clean energy regulator, 29% of projected 'abatement' had been delivered. This includes both carbon emissions avoided, like deforestation that didn't happen, and additional carbon sequestration like afforestation¹⁴. This is equivalent to 59 million tonnes of carbon. While the number of projects maps closely onto population distribution with the east coast registering the most projects and the northern territory registering the fewest but it is clear from the graphic that states with plenty of agricultural land that could most benefit from carbon sequestration and have the highest potential have been the most successful.

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¹⁴https://www.climatechangeauthority.gov.au/sites/default/files/2020-11/ERF%20Review%20Final%20Report%2020201009_2.pdf p32

Agricultural projects under the ERF

Map: CEN • Source: Clean Energy Regulator • Created with Datawrapper

Vegetation projects under the ERF

Map: CEN • Source: Clean Energy Regulator • Created with Datawrapper

Soil as a 'second crop'

Almost all agriculture on Earth is dependent on the first six inches of topsoil where 95% of crops grow. Yet over the last few decades, this topsoil has been depleting at an alarming rate due to farming practices which overexert the land and prioritise high short term yields over longer term sustainability. In Australia the dry climate means that the soil is at much more risk of erosion than most places - some of the soils in Australia are the most carbon depleted in the world. This not only harms farmers' ability to grow food but reduces the resilience of landscapes as healthy soils can store vast amounts of water. For every 1% increase in carbon, an acre of land can hold an additional 40,000 gallons of water¹⁵. This makes landscapes more resilient to both floods and droughts - both of which are common risks in Australia.

This all makes improving the soil in Australia a sensible and important measure. In total there are around 90 million hectares, nearly twice the size of France, of intensive agricultural land in Australia¹⁶. Improving the soil carbon of this land even a small amount could entail significant carbon sequestration. By providing a financial incentive to farmers to improve their soil, farmers are able to compete better with farmers prioritising short term yields and increasing their soil fertility in the long run. The ERF works to provide this financial incentive by providing farmers with a second source of income. This has been described by some as a 'second crop' which makes the soil crops are grown in as important as the crops themselves. Most projects which get credits from improving their soil carbon work with a private sector partner, such as the Agriprove, which helps them to register their project, measure the soil at the start so farmers know their baseline and then help with the implementation and the follow up soil analysis.

¹⁵ <https://www.canr.msu.edu/hrt/uploads/535/78622/Organic-Matters-figure-6pgs.pdf>

¹⁶ <https://www.minister.industry.gov.au/ministers/taylor/opinion-piece/soil-carbon-creating-new-opportunities-across-rural-australia>

There are a number of ways to improve the fertility of soil. Farmers can plant nitrogen fixing plants, use green manuring and using a mix of plants to provide variety and increase the root biomass¹⁷. The large number of measures that can be taken together or as a standalone measure help to make this carbon farming a viable option for more farmers who can tailor the methods to their farms requirements, unlike many. Most farmers use multiple methods which work on their particular farms. The Australian Government has also recognised the potential barriers to take up for some smaller farmers who either don't want to bring in a business to help them or for those who couldn't afford to pay for soil testing. To counter this, the Government introduced a new target at the end of 2021 to reduce the cost of soil testing by 90%, to below AUD\$3 per hectare, providing funding for feasibility studies and making data more accessible for farmers¹⁸.

Reforestation and 'real, additional benefits'

Soil as a second crop is not the only way to benefit from the ERF in the agricultural sector. The forestry sector only became eligible for the Emissions Reduction Fund in 2017¹⁹. While carbon credits from not-for-harvest planting were included in the ERF from the beginning, this was the first time that forest planting for profit could be included, having been initially excluded given that when trees are cut down their carbon is released if the trees are burnt or destroyed. The ERF aimed to reduce the carbon emissions from forestry by changing forest plantations from short rotation, where trees are only allowed to grow for a short time to long rotation forests which will capture more carbon. By including the forestry sector, the ERF is able to encourage more sustainable techniques for not only small amounts of less fertile farmland but also the 30 million hectares of natural forest and plantation used for commercial forestry²⁰. This means that now the vast majority of forest cover in Australia is eligible for some of the ERF schemes. In order to make sure that the emissions reductions are realistic, the abatement estimates have to factor in the possibility of wildfires which would reverse the carbon benefits from afforestation²¹.

There have been criticisms of the ERF by some who fear that the emissions reductions from many projects were not 'real, additional benefits', ie. they would have happened anyway without the financial incentive. This is a large problem with a number of emissions trading schemes as it is difficult to assess in many cases whether they would have happened anyway. The ERF white paper that introduced the policy understood this risk and outlined the problem²². While some afforestation projects have been singled out, the fact that the ERF is now applicable to most forests in Australia encourages more sustainable practices and provides the forestry sector with a signalling mechanism.

¹⁷ <https://agriprove.io/build-carbon>

¹⁸ <https://www.minister.industry.gov.au/ministers/taylor/media-releases/accelerating-soil-carbon-technologies>

¹⁹ <https://www.tandfonline.com/doi/pdf/10.1080/00049158.2017.1395160> p1

²⁰ <https://www.awe.gov.au/abares/products/insights/snapshot-of-australias-forest-industry>

²¹ <https://www.tandfonline.com/doi/pdf/10.1080/00049158.2017.1395160>

²² ERF white paper

Lessons to be learned from the Emissions Reduction Fund

- **A targeted approach works** - If the Emissions Reduction Fund was the only policy for reducing emissions then it would have failed. Instead it has proven positive in specific areas, providing reforestation and soil management where previously it didn't make economic sense for farmers to do so.
- **Environmental policies have positive co-benefits** - The ERF didn't just provide farmers with more money and lead to better environmental outcomes; studies have suggested it contributed to greater numbers of jobs in Australia's agricultural sector²³.
- **Build on what has come before** - The ERF deliberately used much of the bureaucratic infrastructure of the previously existing Carbon Farming Initiative. This helped to streamline the policy, speed up the implementation of the ERF and give farmers more certainty.
- **Constantly monitor and react to feedback to improve** - The 2020 review of the Emissions Reduction Fund noted that since 2017 five new methods for reducing carbon emissions had been introduced and five had been revoked based on what was the most cost effective.

²³ K.I. Paul, A. Reeson, P.J. Polglase, P. Ritson, Economic and employment implications of a carbon market for industrial plantation forestry ,Land Use Policy, Volume 30, Issue 1,

The Conservative Environment Network is the independent forum for conservatives who support decarbonisation and conservation. As part of CEN's international work, we are compiling case studies of successful centre-right environmental policies from across the world. If you would like to help contribute or have any further questions, please email fin@cen.uk.com



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