Biodiversity Council

Research findings

Land clearing in northern Australia: legislation and compliance

August 2024

Image: Aerial image of part of the Daly River Catchment, NT. Image: Google Maps

This factsheet summarises key findings from research by The University of Queensland on the regulation of land clearing events in Queensland and the Northern Territory between 2014–2021.

The study was published in the peer-reviewed journal Conservation Biology. The lead author is PhD Candidate Hannah Thomas at The University of Queensland. The work received support from WWF-Australia.

The paper details are: Thomas, H., Ward, M., Simmonds, J., Taylor, M. and Maron, M. (2024). Poor compliance and exemptions facilitate ongoing deforestation, *Conservation Biology, 2024;e14354*. DOI: 10.1111/cobi.14354

Key findings

Legislation is not effectively preventing high rates of land clearing in Queensland or the Northern Territory.

Two-thirds (65%) of clearing was potentially non-compliant with at least one applicable law. Since multiple laws can apply to one clearing event, most clearing was still compliant with at least one law, but of this, only 19% was explicitly approved, with the remaining permitted by various exemptions.

Most of the potential non-compliance was associated with the Commonwealth Environmental Protection and Biodiversity Conservation Act 1999 (EPBC Act). Of the area to which the EPBC Act was likely relevant, less than one quarter (22%) of the clearing had publicly available evidence of a referral. This indicates that there is a need for the new Commonwealth Environment Protection Authority to improve education and enforcement of the EPBC Act.

Most exemptions related to reclearing of previously cleared land to maintain agricultural uses, and applied under Queensland's Vegetation Management Act 1999. Of all the regrowth clearing examined, 82% had provided suitable habitat for threatened species.

In the Northern Territory, clearing that had undergone assessment was almost always approved. Here, increased compliance alone may do little to curb land clearing rates.

Recommendations:

In the short-term, reducing land clearing rates in Northern Australia will require:

- improved education about obligations under national environmental law,
- increased enforcement of legislation, and
- expansion of stewardship schemes for forest and woodland retention on private land.

Increased education and enforcement is most needed for the EPBC Act. Stewardship schemes are urgently needed to support and maintain forest and woodlands on private land, acknowledging that managing these ecosystems is for the common good and can involve lost opportunity costs.

In the longer-term, reform of legislation designed to conserve biodiversity should consider the cumulative impacts of land clearing ('death by a thousand cuts'). It should also consider the value to threatened species of long-uncleared regrowth, e.g. 15–30+ years since last cleared.

It is likely that clearing will increase in the Northern Territory due to economic development; it is therefore crucial to have targeted and effective legal frameworks that prioritise vegetation and biodiversity protection.

To provide transparent and robust data on land clearing in their jurisdictions, the Northern Territory and Western Australian governments could adopt approaches like SLATS, used to track vegetation change in Queensland and New South Wales.

Scope of the research

The study examined the regulation of land clearing in northern Australia. It looked at a large sample of man-made land clearing events of at least 20 hectares in size that occurred during a six-year period from 2014 to 2020.

The availability of high quality data prepared annually by the Queensland Government allowed a comprehensive analysis to be undertaken for Queensland based on the examination of 17,993 separate clearing events with a combined cleared area of 1,588,342 ha.

Equivalent data are not available for Western Australia or the Northern Territory. Alternate data allowed a small but high-confidence sample of clearing in the Northern Territory to be examined, based on 122 clearing events with a combined cleared area of 9,481 ha. Land clearing in Western Australia was unable to be examined due to a lack of suitable publicly available data.

For each cleared area, the team identified which Commonwealth, state and territory regulating legislation applied.

For each piece of legislation at each clearing event the team examined:

1. If the clearing was exempt under the relevant legislation.
2. If there was evidence of referral, assessment or approval based on publicly available data on permits and self-assessments notified to relevant authorities.
3. If the clearing was potentially non-compliant.

Results

Overview

Land clearing remains a major issue for Australia despite having extensive environmental protection laws in place.

On-going high rates of native vegetation loss jeopardise commitments to halt and reverse deforestation by 2030, address climate change, stop extinctions and halt and reverse biodiversity loss.

There are nine key Acts that can applyin the case of clearing vegetation across Northern Australia. There is only one Act at the Commonwealth level, the Environment Protection and Biodiversity Conservation Act 1999.

Every clearing event identified in the study was covered by at least one, and up to three pieces of legislation.

Facilitating pasture for beef cattle is the key driver of most land clearing in northern Australia. According to data from the Queensland Government, 91% of the clearing identified across Queensland was to create pasture for beef cattle with a further 3% thinned, which is also mainly undertaken to improve livestock grazing. [1]

A large proportion of the native vegetation clearing and thinning occuring in northern Australia is undertaken to facilitate beef cattle grazing. This image: cattle in the Victoria River Region, NT. Photo:Jaana Dielenberg.

National legislation

The Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) was likely to be relevant to the majority of clearing we considered (78%), due to potential significant impacts on threatened species and ecosystems which are Matters of National Environmental Significance.

Over three quarters (78%) of the clearing in areas mapped as potential habitat for threatened species and ecosystems was not referred for consideration under the act.

The potential lack of compliance (as indicated by clearing events not being 'referred' to the Commonwealth for assessment) occurs mainly within the agricultural sector, and constitutes the majority of clearing. A survey of Australian farmers as part of an independent review on the interactions of the EPBC Act and agriculture, by Craik found that 25% had never heard of the EPBC Act, and over 80% did not understand their legal obligations under this Act.[2]

Enforcement of the legislation in agricultural settings has historically been rare which may have led to widespread belief that the laws are not relevant.

The Australian Government has committed to establishing the Environmental Protection Agency to oversee compliance and enforcement as part of major reforms to the EPBC Act which are currently underway. Addressing the low levels of awareness and enforcement would be a valuable action for the new agency.

Of the 22% of clearing that was likely EPBC Act compliant, most (65%) was compliant by exemption (excluding clearing of regrowth that was cleared within 15 years, according to the 'lawful continuation exemption'), with 35% compliant by assessment.

Ensuring full assessment for land clearing proposals under relevant legislation is not necessarily a pathway to reducing deforestation. Few projects referred for consideration under the EPBC Act were not approved in northern Australia during our study.

All independent reviews of the EPBC Act have highlighted the failure of the Act to adequately consider cumulative impacts. This study highlights that very large amounts of habitat are being cleared each year through thousands of separate clearing events. While this study only examined clearing events at least 20 ha in size, clearing patches smaller than 20 ha are also likely to have contributed to the overall cumulative negative impact of land clearing on biodiversity.

Queensland

The majority of clearing over the last four decades in Australia has occurred in Queensland, mainly for establishment of cattle pasture, including re-clearing of woody vegetation that regrows post-clearing.

The Queensland Government's annually produced Statewide Landcover and Trees Study (SLATS) woody vegetation loss datasets provided high quality data for analysis of Queensland land clearing. SLATS provides a detailed map of woody vegetation cover that is based on satellite images and data that are rigorously assessed by remote sensing scientists.

The study considered 17,810 discrete clearing events in Queensland of at least 20 hectares in size which had a combined cleared area of 1,588,342 ha. The Brigalow Belt and Mulga Lands accounted for 79% of the total clearing throughout the study period.

The most widely applicable law In Queensland is the Vegetation Management Act 1999 (VMA), which was relevant for 99% of the clearing identified. About 10% of the clearing relevant to the VMA was potentially non-compliant, implying the removal of regulated vegetation without approval or notification.

Of the remaining 90% that was compliant with the VMA, most was compliant through exemptions (84%), with a small proportion (16%) compliant through assessment or notification. Most of the exempt clearing was accounted for under one exemption: the clearing of unregulated regrowth.

Much of the regrowth cleared during the study did not appear to be under a regular regrowth clearing cycle as 82% was on land that had not been cleared for at least 15 years. Regrowth that is 15–30 years ago can be reasonably mature and of importance to threatened species that have lost much of their original habitat.

Techically, regrowth vegetation can still be subject to federal laws, as a referral under the EPBC Act is

The Vulnerable Yakka skink is one of many species that has declined with the clearing of brigalow forests. Brigalow forests once occupied 14 million hectares in QLD and NSW, today only 8% remain and many remnants are degraded. Image: Scott Eipper/Flickr CC BY-NC 2.0

required if clearing will result in a significant impact or likely significant impact on threatened species. The EPBC Act's 'continued use for agriculture' exemption only applies to clearing of regrowth that is under a continuous clearing cycle. However, this exemption appears to be rarely enforced, as extensive areas of older regrowth were cleared without evidence of an EPBC referral.

Stronger regulation may seem an appropriate response, and past periods of stronger regulation in Queensland did have reduced clearing rates. However, previous periods of policy uncertainty have led to increased clearing rates, due to preemptive clearing from the threat of future restriction. Because of this, a recent expert panel recommended maintaining regulatory stability (i.e., not tightening exemptions) to prevent anticipatory clearing, and instead providing incentives and rewards to landowners for retaining regrowth (e.g., environmental stewardship schemes, enhanced carbon market opportunities).[3]

A very small proportion (4%) of clearing in Queensland was regulated under the Environmental Protection Act 1994, the Planning Act 2016, the Forestry Act 1959 and the Nature Conservation Act 1992. Clearing regulated by the first two Acts was mostly compliant. Neither of the remaining two Acts had publicly available assessment data and so we were not able to determine compliance.

Northern Territory

The Northern Territory has seen less land clearing than Queensland, as cattle can graze the Territories savannah woodlands without modification. The grazing can still degrade the savannah, especially if stocking rates are high.

For the Northern Territory the only data available to assess land clearing is the National Forest and Sparse Woody Vegetation dataset. This data is not as suitable for identifying land clearing as the SLATS data available in Queensland (and NSW).

Using this data, and verifying clearing events against high-resolution satellite imagery, the team identified a sample of 122 clearing events in the Northern Territory, with a combined cleared area of 9,481 ha.

The majority of clearing (96%) was partially compliant with either the Pastoral Land Act 1992 (PLA) or the Planning Act 1999, but none was referred under the EPBC Act even where that appeared necessary with the EPBC Act. The remaining 4% was potentially non-compliant with all relevant legislation.

Most clearing applications to the PLA were approved during the study period. The PLA regulates land clearing on the pastoral estate (45% of the Northern Territory) and is designed to facilitate agricultural land-use. Although the PLA has an objective of preventing or minimising land degradation, it was not primarily designed for conservation; there are limited mechanisms to protect high-value biodiversity, the land clearing guidelines are not legislated, and there are no third-party appeal rights.

There is a current focus on economic expansion in the Northern Territory. In 2023, the Northern Territory Government released an Agribusiness Strategy, which aims to develop 100,000 hectares of broadacre cropping. Critical mineral mining projects are also likely to expand into previously uncleared land. Our analysis illuminates the potential shortfalls in the effectiveness of current legal frameworks for managing the added pressure on forest and woodland ecosystems.

Western Australia

Native vegetation clearing in Western Australia requires a referral (unless exempt) to the Environmental Protection Act 1986, the primary law that regulates native vegetation clearing in Western Australia.

Land clearing is occurring in the north of Western Australia. The publicly available data was insufficient for identification and analysis of clearing events.

Cotton is one of the crops that land is being cleared for in the Northern Territory. This image a cotton baler on a farm in NSW. Image: Ronjhino CC-BY-SA-4.0/Wikimedia Commons

Additional references

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The Biodiversity Council was founded by 11 universities with support from The Ian Potter Foundation, The Ross Trust, Trawalla Foundation, The Rendere Trust, Isaacson Davis Foundation, Coniston Charitable Trust and Angela Whitbread.

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