

Land cover change in Queensland 2014–15

Statewide Landcover and Trees Study Report



Executive Summary

BACKGROUND

The Statewide Landcover and Trees Study (SLATS) is a vegetation monitoring initiative of the Queensland Government undertaken by the Department of Science, Information Technology and Innovation (DSITI).

The maps and statistics derived from SLATS support the *Vegetation Management Act 1999* (VMA) administered by the Department of Natural Resources and Mines (DNRM).

The study detects changes in woody vegetation using Landsat satellite imagery. Images captured approximately one year apart are compared using a combination of automated and manual mapping techniques to produce a statewide map of land cover change.

Woody vegetation encompasses both woody remnant and woody regrowth vegetation as defined by the VMA. Some examples of woody vegetation include undisturbed and disturbed native woodlands, timber plantations and exotic species.

To facilitate comparison between analysed periods, results are reported as woody vegetation clearing rates in thousands of hectares per year (,000 ha/year) for all of Queensland.*

A new method for calculating the rate of clearing has been applied for the 2014–15 period, and to all previously reported SLATS clearing periods (as shown in Figure 1). Refer to the full 2014–15 SLATS report for further information.

KEY FINDINGS

2014–15 period

- 296 000 ha/year of woody vegetation was cleared, statewide. This was similar to the statewide woody vegetation clearing figure in 2013–14 of 295 000 ha/year.
- 114 000 ha/year of remnant woody vegetation was cleared, statewide, representing 38% of the total woody vegetation clearing (Table 1). This compared to 100 000 ha/year of remnant woody vegetation clearing in 2013–14 (35% of total woody vegetation clearing).
- 91% of cleared woody vegetation was replaced by pasture in the 2014–15 period. The remaining 9% was replaced by crop, forestry, mining, infrastructure and settlements.
- 29% of the 2014–15 mapped woody vegetation clearing had previously been cleared one or more times since 1988.

Table 1. Clearing by woody vegetation type (,000 ha/year)

Period	Non-remnant	Remnant	Total clearing
2014–15	182 (62%)	114 (38%)	296

* Rates are rounded to the nearest 1000 ha/year and percentages are rounded to the nearest whole percentage.

WOODY VEGETATION CLEARING

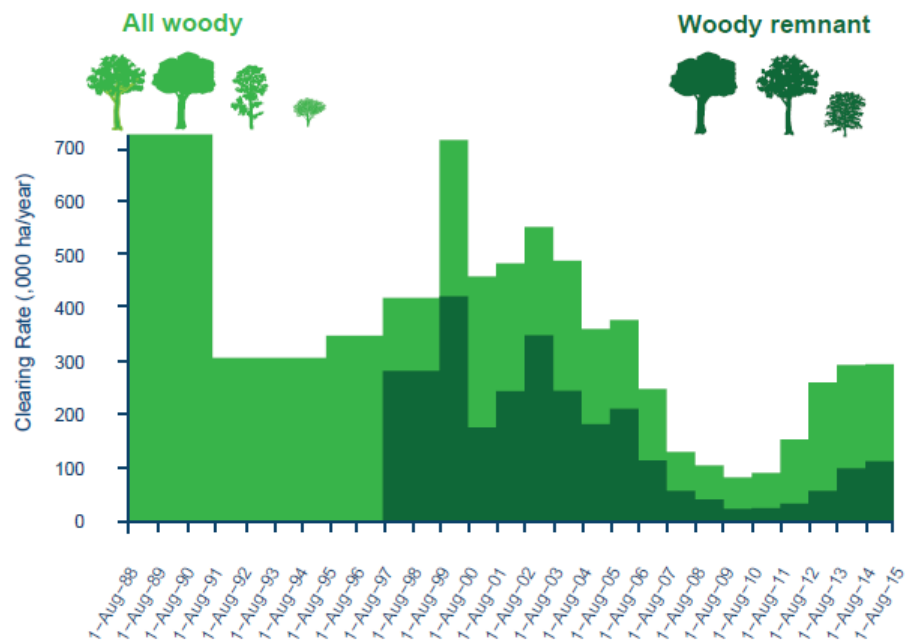


Figure 1. Historic woody vegetation clearing in Queensland

As illustrated in Figure 1, woody vegetation clearing in 2014–15 (296 000 ha/year) was similar to that of the 2013–14 period (295 000 ha/year).

BIOGEOGRAPHIC REGIONS

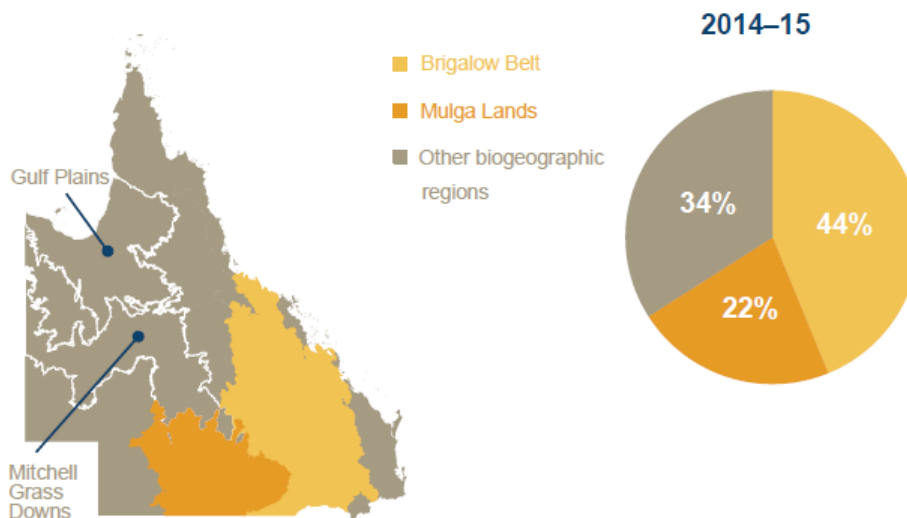


Figure 2. Woody vegetation clearing in key biogeographic regions as a percentage of total clearing in Queensland (Table 1)

The Brigalow Belt and Mulga Lands continued to record the highest woody vegetation clearing rates in 2014–15. 130 000 ha/year and 65 000 ha/year were cleared in those regions (Figure 2). In 2013–14 comparatively, 132 000 ha/year of woody vegetation clearing occurred in the Brigalow Belt and 108 000 ha/year in the Mulga Lands. In the ‘other’ category, woody vegetation clearing rates changed significantly in the Gulf Plains region (18 000 ha/year in 2014–15 compared to 4 000 ha/year in 2013–14) and in the Mitchell Grass Downs region (26 000 ha/year in 2014–15 compared to 14 000 ha/year in 2013–14).

DRAINAGE DIVISIONS

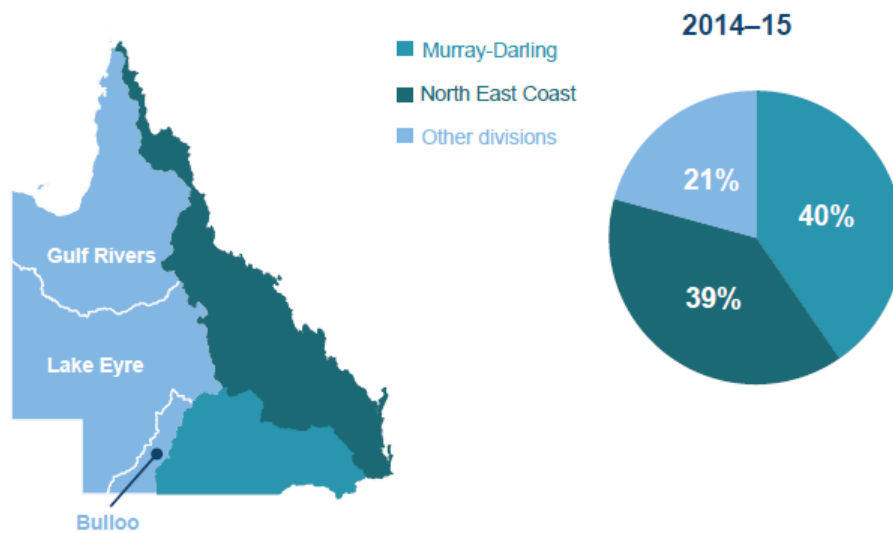


Figure 3. Woody vegetation clearing in key drainage divisions as a percentage of total clearing in Queensland (Table 1)

The Murray-Darling and North East Coast divisions continued to record the highest woody vegetation clearing rates in 2014–15. 119 000 ha/year and 115 000 ha/year were cleared in those regions (Figure 3). In 2013–14 comparatively, 153 000 ha/year of woody vegetation clearing occurred in the Murray-Darling and 111 000 ha/year in the North East Coast divisions. In the 'other' category, woody vegetation clearing rates changed significantly in the Gulf Rivers division (21 000 ha/year in 2014–15 compared to 7 000 ha/year in 2013–14) and in the Lake Eyre division (38 000 ha/year in 2014–15 compared to 20 000 ha/year in 2013–14).

GREAT BARRIER REEF (GBR) CATCHMENTS

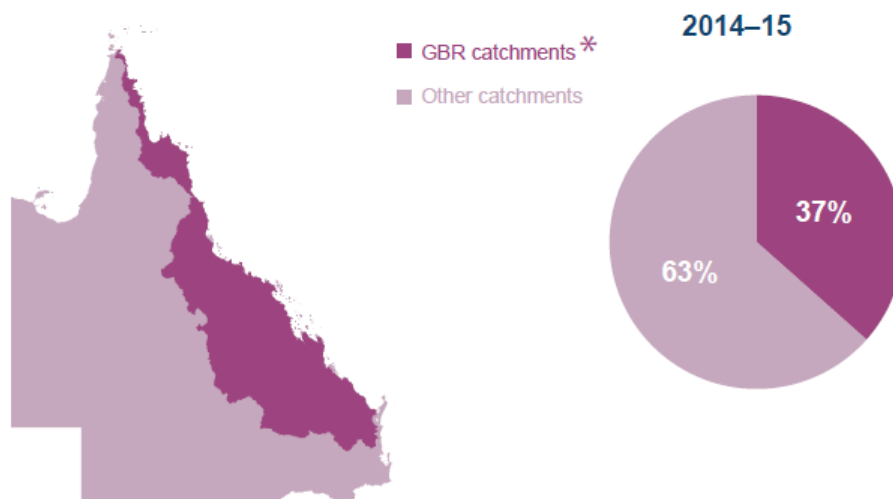


Figure 4. Woody vegetation clearing in the Great Barrier Reef catchments as a percentage of total clearing in Queensland (Table 1)

108 000 ha/year of woody vegetation was cleared in 2014–15 in the GBR catchments (Figure 4). This compared to 105 000 ha/year of woody vegetation clearing in 2013–14.

* The GBR catchments are a subset of the North East Coast drainage division indicated in Figure 3.

STATEWIDE WOODY VEGETATION CLEARING 2014–15

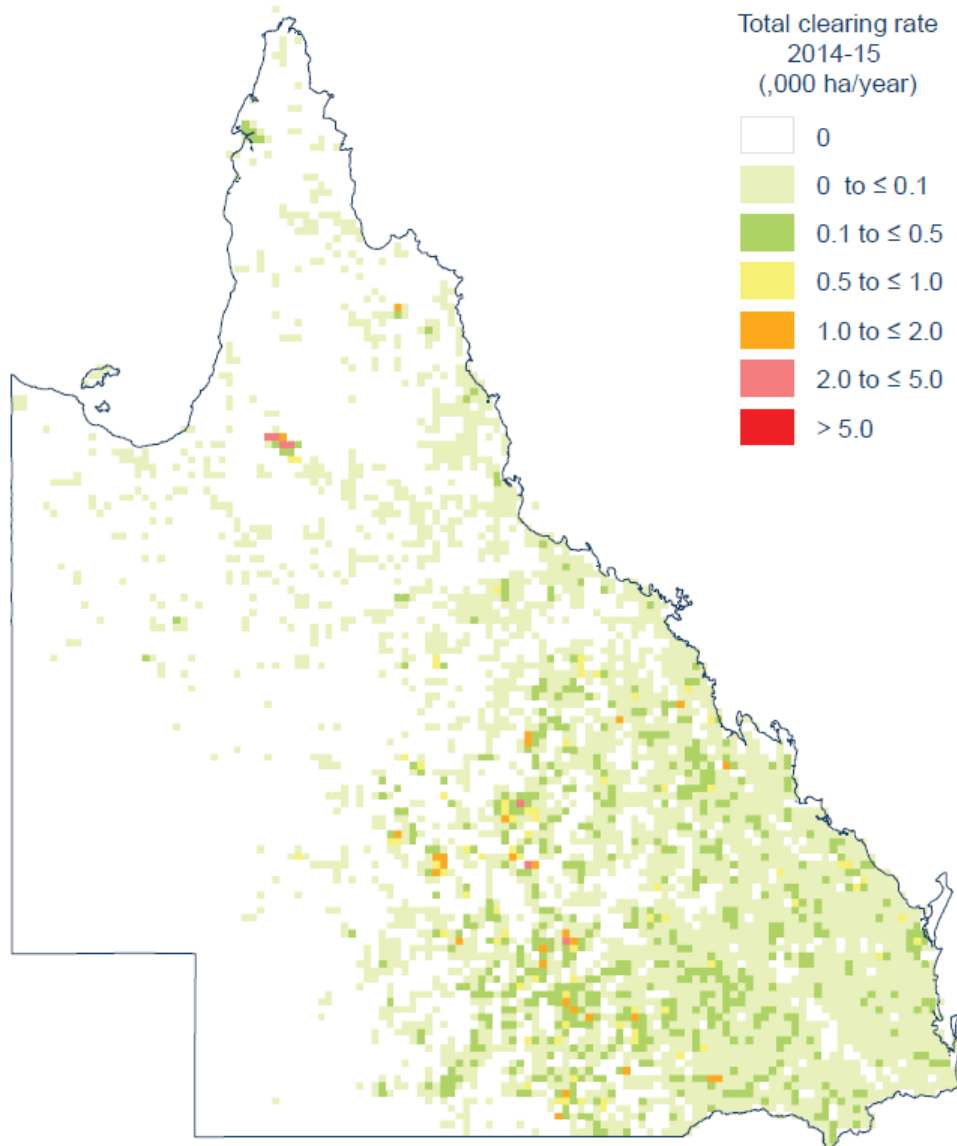


Figure 5. Woody vegetation clearing in Queensland 2014–15. Individual cell area = 17 500 hectares

The spatial distribution and intensity of woody vegetation clearing in Queensland for the 2014–15 period is shown in Figure 5.

For further details including definitions, methodology and statewide analyses, please refer to the 2014–15 SLATS Report at:

<https://www.qld.gov.au/environment/land/vegetation/mapping/slats-reports/>

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