

Land cover change in the Wet Tropics region 2012–14

Introduction

This fact sheet is 1 of 13 in a series detailing land cover change in Queensland's Natural Resource Management regions. These fact sheets are addenda to the report: Queensland Department of Science, Information Technology and Innovation. 2015. *Land cover change in Queensland 2012–13 and 2013–14: a Statewide Landcover and Trees Study (SLATS) report*. DSITI, Brisbane. Please refer to this report for further background, terminology, methods and explanatory notes.

Figure 1 and Table 1 provide an historical overview of the remnant and non-remnant woody vegetation clearing trends within the region. The spatial distribution of the 2012–13, 2013–14 and historical woody vegetation clearing is shown in Figure 2. An overview of woody vegetation clearing rates categorised by tenure is provided in Table 2 and Figure 3. Woody vegetation clearing rates and remaining woody vegetation in each catchment within the region are provided in Tables 3 and 4, respectively, while replacement land cover information is provided in Table 5 and Figure 4.

Summary

In 2012–13, the woody vegetation clearing rate for the Wet Tropics region was 1 212 hectares per year (ha/year), a decrease of 14% from the 2011–12 woody vegetation clearing rate of 1 406 ha/year (Table 2 and Figure 1).

In 2013–14, the woody vegetation clearing rate was 1 466 ha/year, an increase of 21% from the 2012–13 woody vegetation clearing rate (1 212 ha/year) (Table 2 and Figure 1).

In 2012–13, the clearing rate of remnant woody vegetation in the region was 338 ha/year, an increase of 34% from the 253 ha/year reported in the 2011–12 period. In 2013–14, the remnant woody vegetation clearing rate was 371 ha/year, an increase of 10% from the 2012–13 period (338 ha/year). The clearing of remnant woody vegetation accounted for 28% and 25% of the total woody vegetation clearing in the region for the 2012–13 and 2013–14 periods, respectively (Table 1 and Figure 1).

The replacement land cover class for forestry represented 63% and 56% of woody vegetation clearing reported in the region for the 2012–13 and 2013–14 periods, respectively (Table 5 and Figure 4).

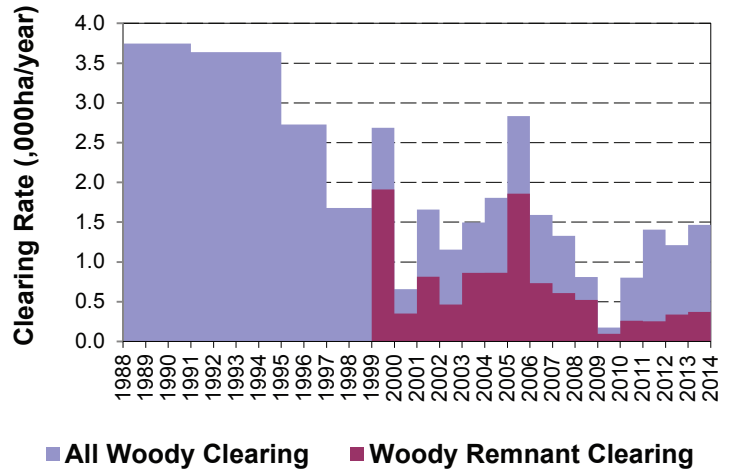
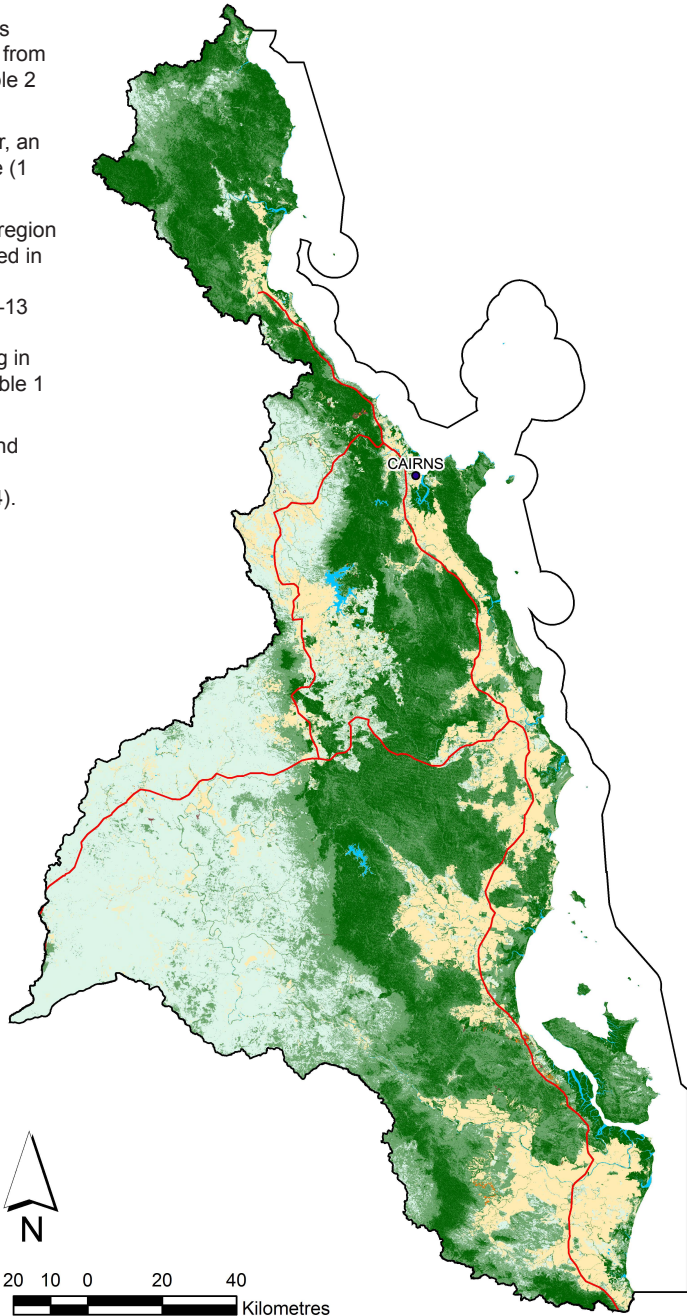
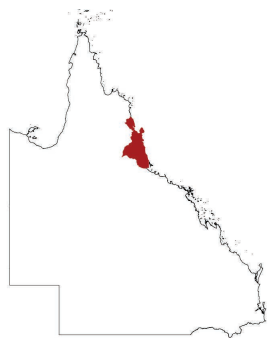


Figure 1. Woody vegetation clearing rates (,000 ha/year) in the Wet Tropics region.



Foliage Projective Cover (FPC) 2012 V2.3

- 0% FPC
- 1-40% FPC
- 41-70% FPC
- 71-100% FPC
- Water
- Roads

Clearing

- 2013–14
- 2012–13
- 1988–12



20 10 0 20 40
Kilometres

Figure 2. Spatial distribution of current (2012–13 and 2013–14) and historical (1988–12) woody vegetation clearing in the Wet Tropics region.

Woody vegetation clearing by remnant status

Table 1. Remnant and non-remnant woody vegetation clearing rates (,000 ha/year) in the Wet Tropics region.

| Period | Non-remnant woody | Remnant woody | Total woody clearing |
|---------|-------------------|---------------|----------------------|
| 1999-00 | 0.776 | 1.911 | 2.687 |
| 2000-01 | 0.306 | 0.351 | 0.657 |
| 2001-02 | 0.845 | 0.814 | 1.659 |
| 2002-03 | 0.691 | 0.464 | 1.155 |
| 2003-04 | 0.633 | 0.862 | 1.495 |
| 2004-05 | 0.943 | 0.863 | 1.806 |
| 2005-06 | 0.976 | 1.858 | 2.834 |
| 2006-07 | 0.858 | 0.733 | 1.591 |
| 2007-08 | 0.720 | 0.608 | 1.328 |
| 2008-09 | 0.288 | 0.522 | 0.810 |
| 2009-10 | 0.079 | 0.096 | 0.174 |
| 2010-11 | 0.538 | 0.263 | 0.801 |
| 2011-12 | 1.153 | 0.253 | 1.406 |
| 2012-13 | 0.874 | 0.338 | 1.212 |
| 2013-14 | 1.095 | 0.371 | 1.466 |

Woody vegetation clearing by tenure

Table 2. Woody vegetation clearing rates (,000 ha/year) in the Wet Tropics region by tenure.

| Period | Freehold | Leasehold | Other tenures | Other reserves | Total |
|---------|----------|-----------|---------------|----------------|-------|
| 1988-91 | 2.533 | 0.711 | 0.021 | 0.469 | 3.733 |
| 1991-95 | 2.712 | 0.613 | 0.005 | 0.291 | 3.620 |
| 1995-97 | 2.234 | 0.396 | 0.006 | 0.082 | 2.719 |
| 1997-99 | 1.156 | 0.451 | 0.008 | 0.059 | 1.675 |
| 1999-00 | 1.966 | 0.585 | 0.000 | 0.136 | 2.687 |
| 2000-01 | 0.476 | 0.119 | 0.001 | 0.061 | 0.657 |
| 2001-02 | 0.889 | 0.662 | 0.000 | 0.107 | 1.659 |
| 2002-03 | 0.606 | 0.336 | 0.004 | 0.208 | 1.155 |
| 2003-04 | 0.965 | 0.154 | 0.000 | 0.377 | 1.496 |
| 2004-05 | 0.935 | 0.385 | 0.000 | 0.486 | 1.806 |
| 2005-06 | 0.938 | 1.328 | 0.007 | 0.561 | 2.834 |
| 2006-07 | 0.837 | 0.192 | 0.001 | 0.561 | 1.591 |
| 2007-08 | 0.508 | 0.427 | 0.000 | 0.393 | 1.328 |
| 2008-09 | 0.486 | 0.243 | 0.000 | 0.080 | 0.810 |
| 2009-10 | 0.108 | 0.058 | 0.000 | 0.008 | 0.174 |
| 2010-11 | 0.162 | 0.173 | 0.000 | 0.465 | 0.801 |
| 2011-12 | 0.213 | 0.092 | 0.000 | 1.101 | 1.406 |
| 2012-13 | 0.325 | 0.132 | 0.000 | 0.755 | 1.212 |
| 2013-14 | 0.555 | 0.135 | 0.000 | 0.777 | 1.466 |

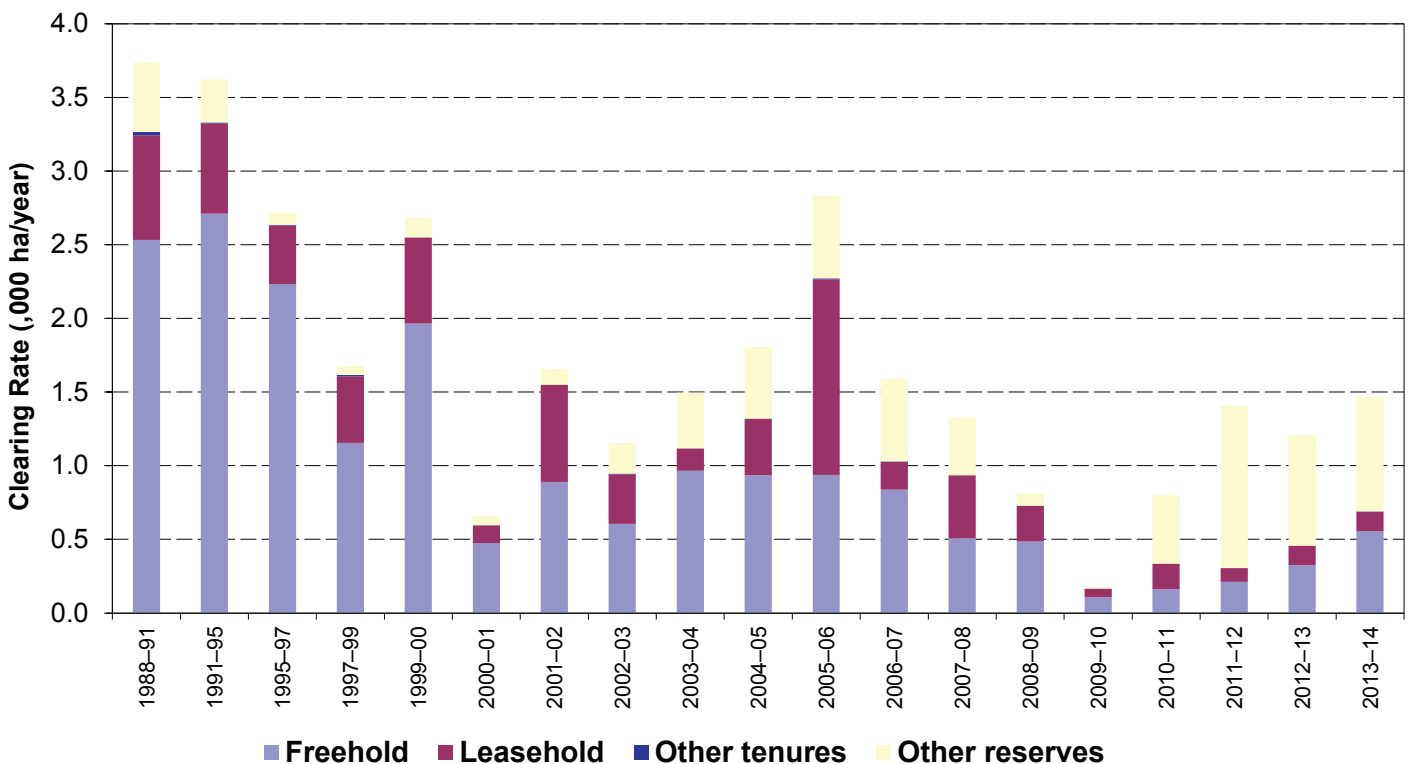


Figure 3. Woody vegetation clearing rates (,000 ha/year) in the Wet Tropics region by tenure.

Woody vegetation clearing by catchment

Remaining woody vegetation

Table 3. Woody vegetation clearing rates (,000 ha/year) in the Wet Tropics region by catchment.

Table 4. Remaining woody vegetation in the Wet Tropics region by catchment.

| Catchments | 2009–10 | 2010–11 | 2011–12 | 2012–13 | 2013–14 |
|-----------------------|--------------|--------------|--------------|--------------|--------------|
| Barron River | 0.033 | 0.024 | 0.142 | 0.235 | 0.434 |
| Daintree River | 0.005 | 0.005 | 0.002 | 0.010 | 0.015 |
| Endeavour River | 0.002 | 0.001 | 0.003 | 0.015 | 0.007 |
| Herbert River | 0.117 | 0.211 | 0.776 | 0.513 | 0.485 |
| Hinchinbrook Island | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Mossman River | 0.001 | 0.003 | 0.007 | 0.011 | 0.019 |
| Mulgrave River | 0.005 | 0.012 | 0.002 | 0.023 | 0.015 |
| Murray River | 0.004 | 0.508 | 0.448 | 0.383 | 0.454 |
| North Johnstone River | 0.000 | 0.009 | 0.016 | 0.001 | 0.020 |
| Russell River | 0.000 | 0.008 | 0.000 | 0.004 | 0.000 |
| South Johnstone River | 0.003 | 0.008 | 0.005 | 0.008 | 0.010 |
| Tully River | 0.004 | 0.011 | 0.006 | 0.008 | 0.008 |
| Total | 0.174 | 0.800 | 1.406 | 1.212 | 1.466 |

| Catchments | Area (,000 ha) | 2012 wooded vegetation cover (,000 ha) | % wooded vegetation cover |
|-----------------------|----------------|--|---------------------------|
| Barron River | 219 | 172 | 79 |
| Daintree River | 210 | 204 | 97 |
| Endeavour River | 8 | 7 | 96 |
| Herbert River | 983 | 853 | 87 |
| Hinchinbrook Island | 39 | 38 | 98 |
| Mossman River | 47 | 41 | 86 |
| Mulgrave River | 131 | 109 | 83 |
| Murray River | 111 | 84 | 76 |
| North Johnstone River | 103 | 85 | 82 |
| Russell River | 67 | 53 | 79 |
| South Johnstone River | 129 | 89 | 69 |
| Tully River | 168 | 134 | 79 |
| Total | 2216 | 1868 | 84 |

Woody vegetation clearing by replacement land cover

Table 5. Woody vegetation clearing rates (,000 ha/year) in the Wet Tropics region by replacement land cover.

| Period | Pasture | Crop | Forestry | Mining | Infrastructure | Settlement | Total |
|---------|---------|-------|----------|--------|----------------|------------|-------|
| 1988–91 | 1.050 | 1.973 | 0.313 | 0.003 | 0.310 | 0.097 | 3.746 |
| 1991–95 | 0.221 | 3.036 | 0.294 | 0.000 | 0.040 | 0.048 | 3.638 |
| 1995–97 | 0.552 | 1.885 | 0.073 | 0.006 | 0.105 | 0.108 | 2.728 |
| 1997–99 | 0.689 | 0.852 | 0.042 | 0.000 | 0.069 | 0.027 | 1.679 |
| 1999–00 | 2.006 | 0.210 | 0.078 | 0.000 | 0.381 | 0.012 | 2.687 |
| 2000–01 | 0.392 | 0.089 | 0.051 | 0.000 | 0.103 | 0.024 | 0.657 |
| 2001–02 | 1.286 | 0.236 | 0.060 | 0.023 | 0.027 | 0.026 | 1.659 |
| 2002–03 | 0.750 | 0.165 | 0.191 | 0.006 | 0.023 | 0.020 | 1.155 |
| 2003–04 | 0.961 | 0.002 | 0.381 | 0.001 | 0.044 | 0.106 | 1.496 |
| 2004–05 | 1.011 | 0.012 | 0.655 | 0.004 | 0.052 | 0.072 | 1.806 |
| 2005–06 | 1.611 | 0.018 | 0.990 | 0.015 | 0.118 | 0.081 | 2.834 |
| 2006–07 | 0.920 | 0.079 | 0.550 | 0.007 | 0.009 | 0.026 | 1.591 |
| 2007–08 | 0.771 | 0.008 | 0.398 | 0.033 | 0.069 | 0.050 | 1.328 |
| 2008–09 | 0.688 | 0.000 | 0.070 | 0.001 | 0.025 | 0.026 | 0.810 |
| 2009–10 | 0.133 | 0.020 | 0.007 | 0.003 | 0.010 | 0.002 | 0.174 |
| 2010–11 | 0.280 | 0.014 | 0.450 | 0.000 | 0.040 | 0.018 | 0.801 |
| 2011–12 | 0.238 | 0.044 | 1.108 | 0.002 | 0.010 | 0.003 | 1.406 |
| 2012–13 | 0.294 | 0.088 | 0.757 | 0.006 | 0.047 | 0.020 | 1.212 |
| 2013–14 | 0.526 | 0.066 | 0.823 | 0.006 | 0.021 | 0.024 | 1.466 |

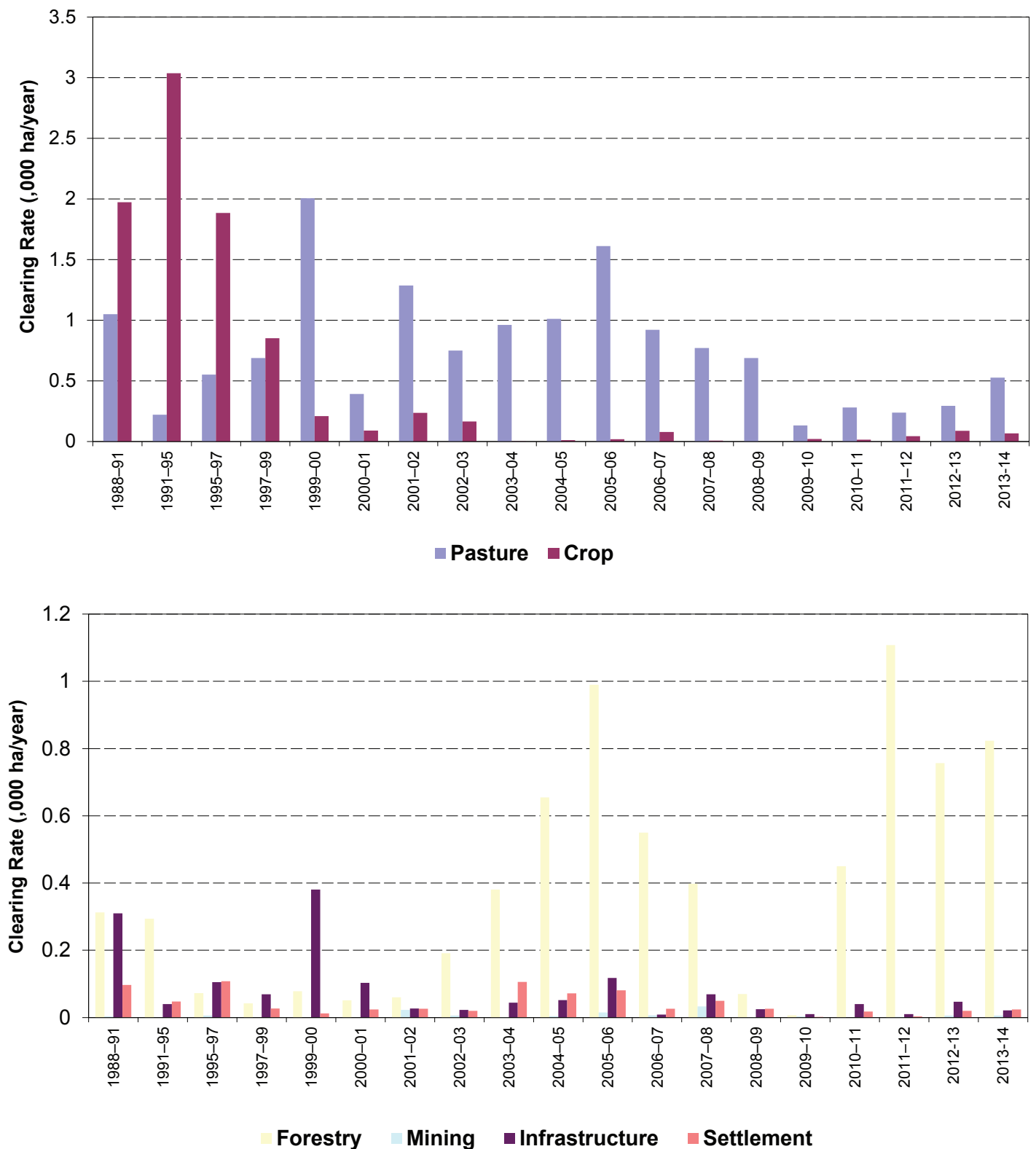


Figure 4. Woody vegetation clearing rates (,000 ha/year) in the Wet Tropics region by replacement land cover.

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