

# Land cover change in the Queensland Murray–Darling Committee Natural Resource Management region

2010–11

## Summary

In the 2010–11 era, woody vegetation clearing in the Queensland Murray Darling Committee region saw a dramatic 113 per cent increase to 22,334 hectares per year (ha/yr) from 10,503 ha/yr in the 2009–10 era, the first increase since the 2002–03 era. Whilst there was some missed 2009–10 clearing detected, the amount is insignificant compared to the change in clearing rates between the two eras.

In most previous eras clearing to the replacement land cover of pasture accounted for more than 95 per cent of clearing, however in 2010–11 it accounted for 72 per cent and the replacement land cover of infrastructure represented 23 per cent of total clearing.

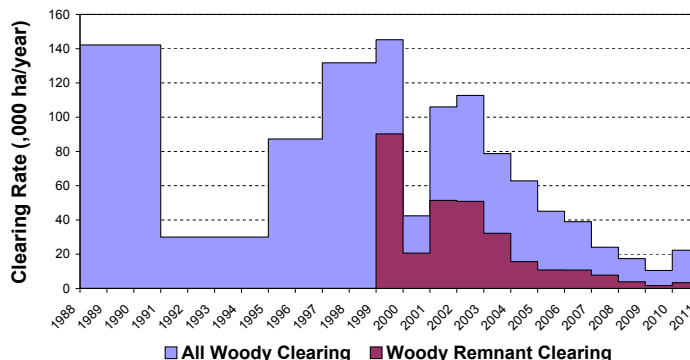


Figure 1. Woody vegetation clearing rates in the Queensland Murray–Darling Committee NRM region.

Clearing of remnant woody vegetation comprised 15 per cent of the total woody vegetation clearing for the region.

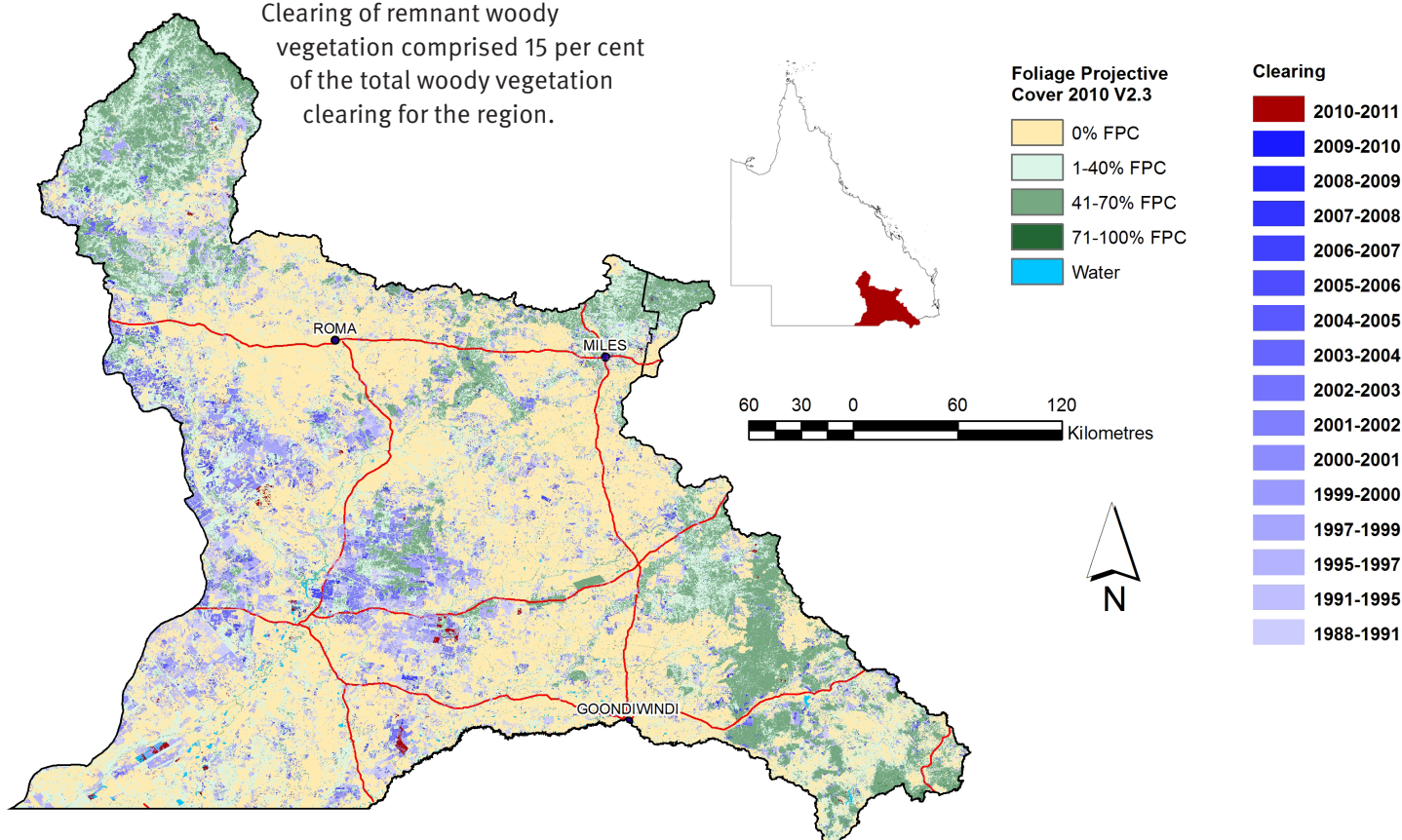


Figure 2. Woody vegetation clearing for each change period.

## Woody vegetation clearing by remnant status

Table 1. Remnant and non-remnant woody vegetation clearing rates in the Queensland Murray–Darling Committee NRM region.

| Period  | Woody vegetation clearing rate (,000 ha/yr) of |                |             |
|---------|--|----------------|-------------|
|         | Non-remnant woody                              | Remnant woody* | Total woody |
| 1999–00 | 54.996   | 90.226         | 145.223     |
| 2000–01 | 21.781   | 20.613         | 42.395      |
| 2001–02 | 54.631   | 51.410         | 106.041     |
| 2002–03 | 61.808   | 50.896         | 112.704     |
| 2003–04 | 46.484   | 32.243         | 78.727      |
| 2004–05 | 47.172   | 15.665         | 62.837      |
| 2005–06 | 34.273   | 10.822         | 45.095      |
| 2006–07 | 28.202   | 10.772         | 38.974      |
| 2007–08 | 16.267   | 7.782          | 24.048      |
| 2008–09 | 13.512   | 3.914          | 17.426      |
| 2009–10 | 8.794  | 1.709          | 10.503      |
| 2010–11 | 18.967   | 3.366          | 22.333      |

\* Regional ecosystem remnant mapping prior to 1999 not used in this analysis.

## Woody vegetation clearing by tenure

Table 2. Woody vegetation clearing rates in the Queensland Murray–Darling Committee NRM region by tenure.

| Period  | Woody vegetation clearing rate (,000 ha/yr) on |           |          |               |         |
|---------|--|-----------|----------|---------------|---------|
|         | Freehold                                       | Leasehold | Reserves | Other tenures | Total   |
| 1988–91 | 102.555  | 38.486    | 0.807    | 0.279         | 142.126 |
| 1991–95 | 20.474   | 9.247     | 0.246    | 0.021         | 29.988  |
| 1995–97 | 70.028   | 16.788    | 0.392    | 0.093         | 87.300  |
| 1997–99 | 103.214  | 27.277    | 1.148    | 0.065         | 131.704 |
| 1999–00 | 127.425  | 17.326    | 0.455    | 0.016         | 145.221 |
| 2000–01 | 31.092   | 11.105    | 0.188    | 0.000         | 42.385  |
| 2001–02 | 87.163   | 18.636    | 0.238    | 0.001         | 106.038 |
| 2002–03 | 97.796   | 14.211    | 0.694    | 0.000         | 112.702 |
| 2003–04 | 55.993   | 21.893    | 0.838    | 0.000         | 78.723  |
| 2004–05 | 49.387   | 12.036    | 1.414    | 0.000         | 62.836  |
| 2005–06 | 35.318   | 9.481     | 0.297    | 0.000         | 45.095  |
| 2006–07 | 29.612   | 8.801     | 0.380    | 0.181         | 38.974  |
| 2007–08 | 17.876   | 3.899     | 2.273    | 0.000         | 24.048  |
| 2008–09 | 10.897   | 6.034     | 0.495    | 0.000         | 17.426  |
| 2009–10 | 8.043  | 2.151     | 0.309    | 0.000         | 10.503  |
| 2010–11 | 19.908   | 1.797     | 0.629    | 0.000         | 22.334  |

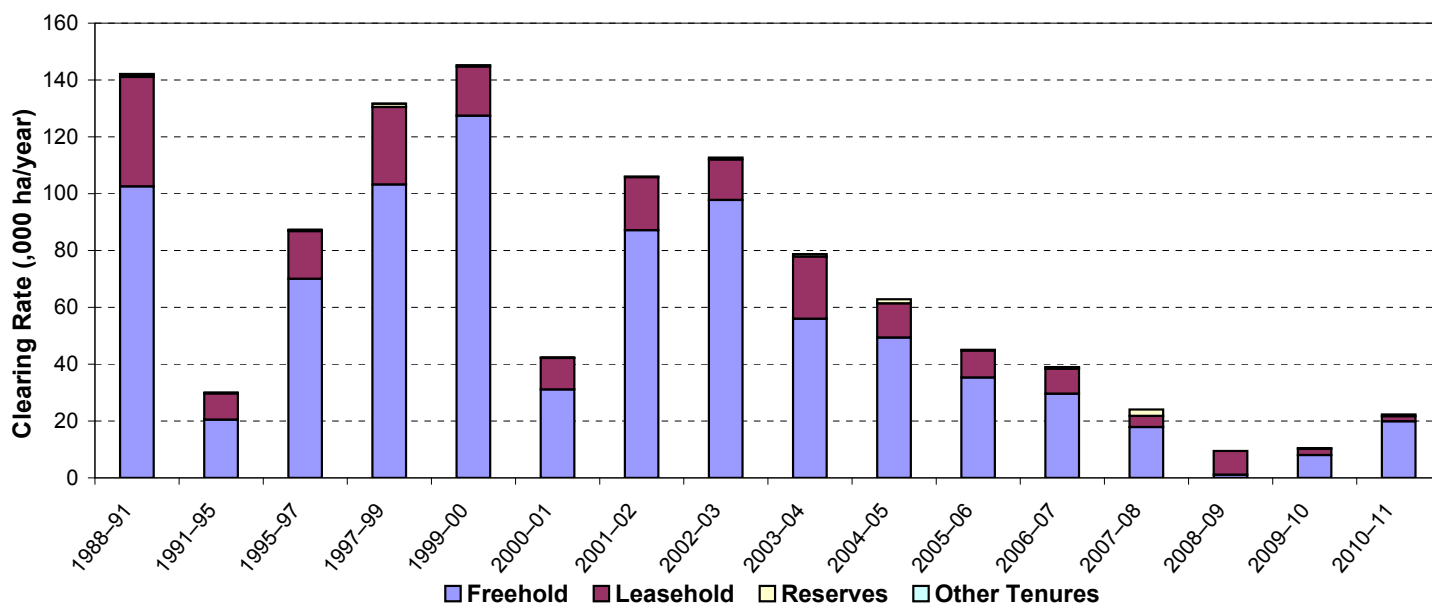


Figure 3. Woody vegetation clearing rates in the Queensland Murray–Darling Committee NRM region by tenure.

## Woody vegetation clearing by subcatchment

Table 3. Woody vegetation clearing rates in the Queensland Murray–Darling Committee NRM region by subcatchment #.

| Woody vegetation clearing rate (,000 ha/yr) for | Period        |               |               |               |               |
|---|---------------|---------------|---------------|---------------|---------------|
|   | 2006–07       | 2007–08       | 2008–09       | 2009–10       | 2010–11       |
| Balonne River                                   | 9.177         | 9.277         | 6.705         | 2.126         | 10.732        |
| Condamine River                                 | 2.244         | 0.312         | 0.417         | 0.215         | 0.140         |
| Dumaresq River                                  | 0.787         | 1.713         | 0.406         | 0.612         | 0.814         |
| Macintyre & Weir Rivers                         | 2.672         | 2.633         | 2.292         | 1.232         | 4.056         |
| Macintyre Brook                                 | 3.699         | 1.542         | 0.777         | 0.396         | 0.286         |
| Maranoa River                                   | 12.985        | 5.517         | 5.646         | 4.924         | 1.906         |
| Moonie River                                    | 7.410         | 3.054         | 1.184         | 0.998         | 4.399         |
| <b>Total</b>                                    | <b>38.974</b> | <b>24.048</b> | <b>17.426</b> | <b>10.503</b> | <b>22.333</b> |

# Please refer to Figure 26 of the main report (DSITIA, 2014) for the location of each subcatchment.

## Remaining woody vegetation

Table 4. Remaining woody vegetation in the Queensland Murray–Darling Committee NRM region by subcatchment.

|                         | Catchment area (,000 ha) | Area woody 2010 V2.3 (,000 ha) | % of catchment woody in 2010 |
|-------------------------|--------------------------|--------------------------------|------------------------------|
| Balonne River           | 3727                     | 1310                           | 35                           |
| Condamine River         | 598                      | 120                            | 20                           |
| Dumaresq River          | 432                      | 279                            | 65                           |
| Macintyre & Weir Rivers | 1541                     | 612                            | 40                           |
| Macintyre Brook         | 432                      | 260                            | 60                           |
| Maranoa River           | 2004                     | 1308                           | 65                           |
| Moonie River            | 1442                     | 487                            | 34                           |
| <b>Total</b>            | <b>10176</b>             | <b>4375</b>                    | <b>43</b>                    |

## Woody vegetation clearing by replacement land cover

Table 5. Woody vegetation clearing rates in the Queensland Murray–Darling Committee NRM region by replacement land cover.

| Period  | Woody vegetation clearing rate (,000 ha/yr) for |        |          |        |                |            |         |
|---------|---|--------|----------|--------|----------------|------------|---------|
|         | Pasture   | Crop   | Forestry | Mining | Infrastructure | Settlement | Total*  |
| 1988–91 | 97.719  | 42.968 | 0.000    | 0.001  | 1.457          | 0.002      | 142.148 |
| 1991–95 | 25.264  | 4.224  | 0.251    | 0.000  | 0.244          | 0.006      | 29.990  |
| 1995–97 | 76.681  | 8.285  | 0.335    | 0.002  | 1.978          | 0.027      | 87.309  |
| 1997–99 | 102.292   | 26.694 | 0.904    | 0.000  | 1.813          | 0.022      | 131.725 |
| 1999–00 | 129.605   | 13.334 | 0.328    | 0.000  | 1.946          | 0.010      | 145.223 |
| 2000–01 | 39.502  | 2.048  | 0.056    | 0.007  | 0.777          | 0.005      | 42.395  |
| 2001–02 | 105.777   | 0.082  | 0.000    | 0.000  | 0.037          | 0.000      | 105.897 |
| 2002–03 | 112.282   | 0.125  | 0.000    | 0.003  | 0.029          | 0.000      | 112.438 |
| 2003–04 | 78.082  | 0.052  | 0.000    | 0.000  | 0.579          | 0.013      | 78.727  |
| 2004–05 | 60.202  | 1.042  | 1.413    | 0.000  | 0.178          | 0.001      | 62.837  |
| 2005–06 | 43.719  | 0.005  | 1.339    | 0.007  | 0.025          | 0.001      | 45.095  |
| 2006–07 | 38.736  | 0.014  | 0.117    | 0.011  | 0.094          | 0.002      | 38.974  |
| 2007–08 | 21.257  | 0.000  | 2.523    | 0.015  | 0.239          | 0.014      | 24.048  |
| 2008–09 | 16.742  | 0.016  | 0.573    | 0.002  | 0.038          | 0.054      | 17.426  |
| 2009–10 | 10.118  | 0.000  | 0.312    | 0.001  | 0.072          | 0.000      | 10.503  |
| 2010–11 | 16.143  | 0.184  | 0.646    | 0.296  | 5.063          | 0.001      | 22.333  |

\* Total excludes natural tree death.

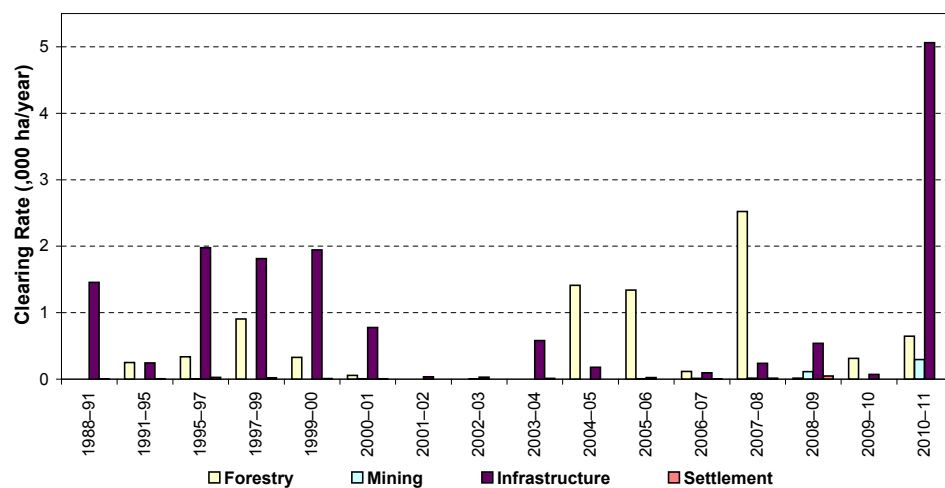
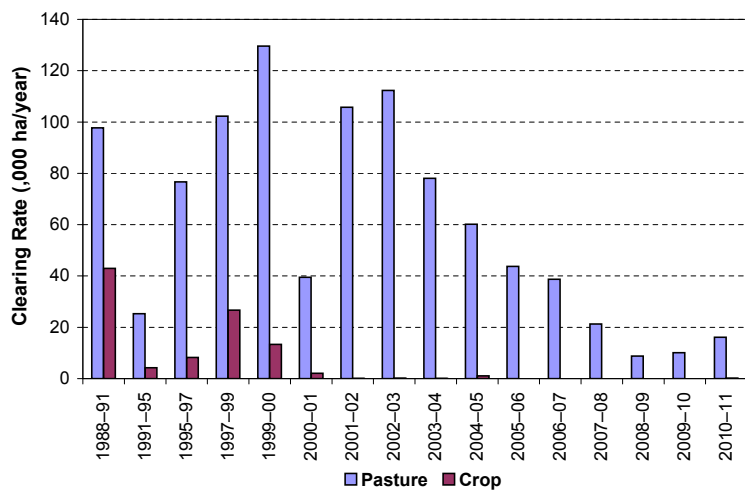


Figure 4. Woody vegetation clearing rates in the Queensland Murray–Darling Committee NRM region by replacement land cover.

This fact sheet is 8 of 13 in a series detailing land cover change in Queensland's Natural Resource Management Regions. These fact sheets are addenda to the report: Department of Science, Information Technology, Innovation and the Arts (2014). *Land cover change in Queensland 2010–11: a Statewide Landcover and Trees Study (SLATS) Report, 2014*. Department of Science, Information Technology, Innovation and the Arts, Brisbane.

Please refer to this report for further background, methods and explanatory notes.

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For further information:  
 Statewide Landcover and Trees Study  
 41 Boggo Road  
 Dutton Park QLD 4102  
 Phone: 61 7 3170 5686  
 Email: siproductdelivery@dnrm.qld.gov.au