

## Land use, land-use change and forestry (LULUCF)

UNFCCC accounts 2005 ([www.greenhouse.gov.au](http://www.greenhouse.gov.au)): LULUCF net emissions –3 Mt CO<sub>2</sub>

Item	Net Mt CO <sub>2</sub>	Uptake Mt CO <sub>2</sub>	Emissions Mt CO <sub>2</sub>	Under-estimate	Omitted	Notes
Conservation forests (147 M ha approx)					Omitted	Uptake by forests in conservation reserves is not included in the accounts although the IPCC defines 'conservation' as a human activity (which therefore results in 'human-induced' emissions and uptake)
Soil carbon					Omitted	This is a significant omission for native forests; soil carbon can be as much as 50% of the total
Managed native forest (15 M ha)						'Managed native forests' are those available for logging
• On-site	-43	-57	14	Yes		The uptake of -57 Mt CO <sub>2</sub> per annum is an estimate which has remained unchanged since 1990. Emissions of 14 Mt CO <sub>2</sub> are a gross underestimate for native forests because they don't include soil carbon or the large quantities of wood waste on-site.
• Logs					12	The bulk of native forest wood is exported as woodchips and completely excluded from the accounts.
Plantations pre-1990						
• On-site (net)	2		2			Pre 1990 plantations are mostly softwood for sawntimber. On-site logging emissions exceed growth.
• Logs					17	Some of this log volume is accounted for in the 'wood products' item below and possibly in the fuelwood consumption component. The remainder is short term products or waste.
Plantations, 1990 +						Post 1990 plantations are mostly short rotation hardwood pulp plantations.
• On-site (net)	-21	-21				With a rotation of about 15 years, very little logging is included in this figure. Unless the area of plantations continues to expand, the uptake from these plantations will eventually be more than offset by the rate of logging, as for the pre-1990 plantations.
• Logs						Assumed to be virtually none as yet.

Burning (wildfire, prescribed burning)	1		1			This figures has varied up to about 5 Mt CO <sub>2</sub> ; it is not large relative to on-site emissions from logging
Fuelwood consumption	10		10			From ABARE data, presumably historic fuel consumption (energy statistics, table G, although the figures do not match properly). Fuelwood is not reported as a 'wood product' by ABARE so on-site emissions are not counted. The fuelwood consumption measured here presumably includes a combination of waste from log processing and wood harvested specifically for energy production.
Clearing (on-site, net)	53		53			Clearing native forest and woodlands for pasture and crops. This is a net figure offsetting regrowth on previously cleared land against new clearing. Reduced rates of clearing are the primary reason why Australia will come close to reaching its Kyoto target
Wood products (incl. Imports)	-5	-5				This is the estimated increase in carbon stored in durable wood products from both domestically produced and imported wood products
Burning and decay					Omitted	About 20% of CO <sub>2</sub> in the logs is released through burning or decay of processing waste
Landfill					Omitted	About 55% of CO <sub>2</sub> in the logs goes to landfill. Much effort is being expended to show that landfill 'stores' carbon rather than releasing it through burning and decay.
Exports					Omitted	Native forest and plantation woodchips and logs which are exported are excluded from the accounts
<b>TOTAL</b>	<b>-3</b>	<b>-83</b>	<b>80</b>	<b>??</b>	<b>29++</b>	

#### Notes

1. The dark grey-shaded column presents net emissions as reported in Australia's National Greenhouse Gas Accounts on-line ([www.greenhouse.gov.au](http://www.greenhouse.gov.au)). The pale grey columns break down the net figures into emissions and uptake where possible.
2. Negative numbers are uptake; positive numbers are emissions.