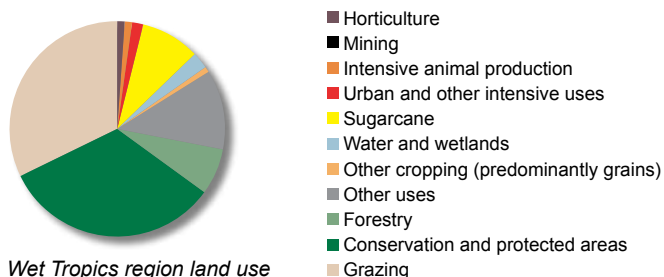


Wet Tropics region

First Report Card 2009 Baseline
Reef Water Quality Protection Plan

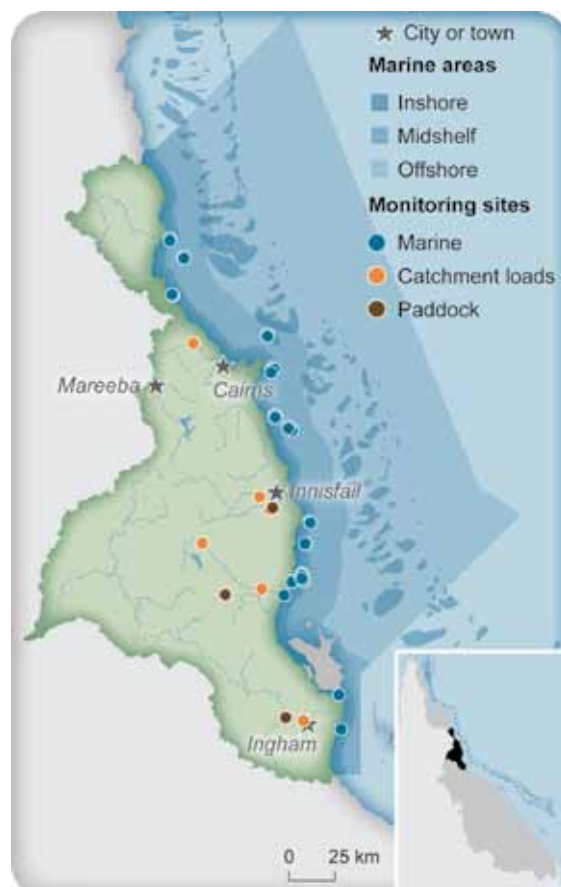
Regional profile

The Wet Tropics region is 22,000 square kilometres, includes most of the Queensland Wet Tropics World Heritage Area and parts of the Great Barrier Reef World Heritage Area and is one of the most biodiverse places in the world. The tropical climate results in cyclones and 60 to 70 per cent of the rainfall occurs in summer. **This report card presents results up to 2009 and therefore does not include the effects of Cyclone Yasi and the more recent flood events which will be presented in subsequent reports.**



Key findings

- Cutting-edge or best management practices for nutrients are used by 20 per cent of sugarcane growers.
- Loss of vegetated freshwater swamps since pre-European times is the highest of all the regions (51 per cent).
- Dissolved nitrogen loads are 11,000 tonnes—almost twice as high as any other region. Pesticide loads are approximately one-third of the total loads entering the Great Barrier Reef.
- Water quality, seagrass and corals are in better condition in the northern than southern part of this region.



Map of the Wet Tropics region and Great Barrier Reef Marine Park showing the paddock, catchment and marine monitoring sites.

Paddock

Catchment

Reef



The Wet Tropics region has occasional cyclones and highly variable rainfall predominantly in summer that delivers sediments, nutrients and pesticides to the inshore and sometimes offshore portions of the reef in pulsed flows. Coastal ranges separate the western areas and floodplain. The Wet Tropics World Heritage area covers nearly half the landscape. The dominant land uses include grazing to the west, sugarcane on the narrow coastal floodplain, and some horticulture across the region. Cairns is the major urban centre with many smaller towns on the coastal strip and Atherton Tablelands. The proximity of the outer reef supports strong tourism and recreational and commercial fisheries. Habitats include fringing and offshore reefs, shallow-water seagrass and extensive coastal mangroves. There is a mix of continental islands and coral cays.

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Australian Government



Land practice results

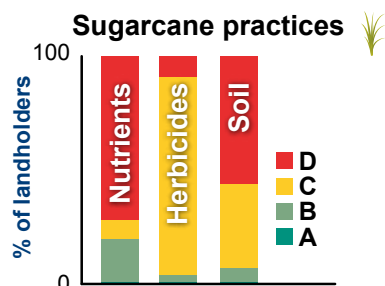
Adoption of improved management practices varies by industry and practice. The adoption of improved management practices is presented using the following framework:

A – Cutting-edge practices

B – Best practices

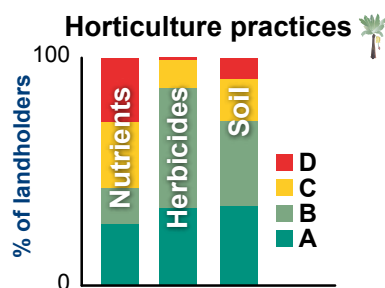
C – Common practices

D – Unacceptable practices



Cutting-edge (A) or best management (B) practices are used by 20 per cent of sugarcane growers for nutrients, four per cent for herbicides and seven per cent for soil.

Unacceptable (D) nutrient and soil management practices are used by 72 per cent and 56 per cent of sugarcane growers, respectively.



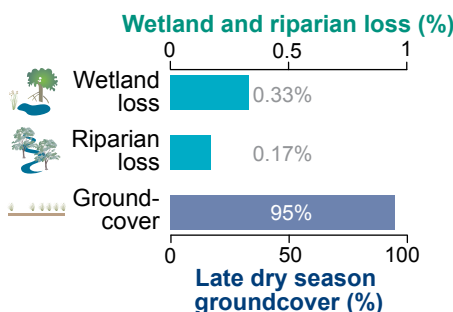
Cutting-edge (A) or best management (B) practices are used by 43 per cent of horticulture producers for nutrients, 88 per cent for herbicides and 72 per cent for soil.

Unacceptable (D) nutrient and soil management practices are used by 28 per cent and nine per cent of horticulture producers, respectively.

Management practice adoption data for the grazing industry is not available at this time.

Catchment results

Catchment indicators include wetland and riparian loss, groundcover and catchment loads.

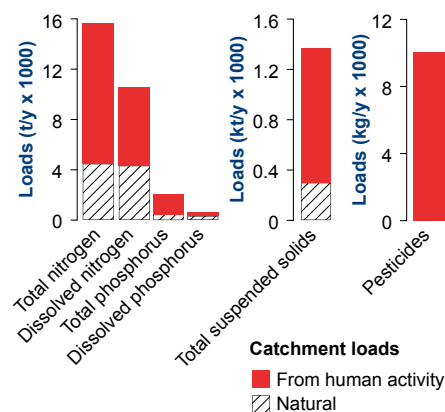


Loss of wetlands between 2001 and 2005 was 266 hectares (0.33 per cent). Of all wetland types, loss of vegetated freshwater swamps since pre-European times is 51 per cent, the highest of all the regions.

The loss of riparian vegetation between 2004 and 2008 was 787 hectares (0.17 per cent).

Late dry season groundcover for grazing lands is high (95 per cent). Groundcover data relates to the Herbert catchment only.

Catchment loads

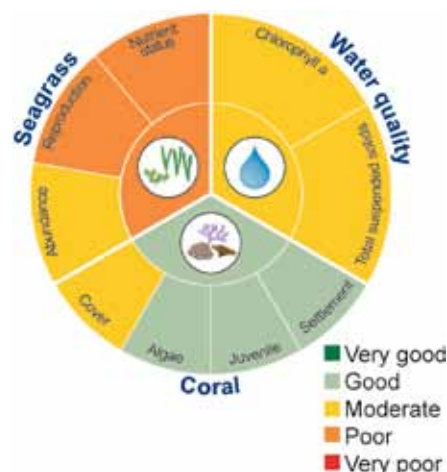


The dissolved nitrogen loads are 11,000 tonnes per year, of which 6300 tonnes are from human activity, significantly higher than other regions. It is estimated that the main source of this load in the Wet Tropics region is fertiliser loss from sugarcane areas.

The total pesticide loads leaving the region's catchments are an estimated 10,000 kilograms per year. This is equal to the highest regional load in the Great Barrier Reef. Residues of pesticides (diuron, atrazine, ametryn and hexazinone) are commonly found in surface waters leaving sugarcane cultivation areas.

Marine results

The Wet Tropics region has poor results for seagrass, moderate water quality and good coral results.



Water quality: Water quality is in moderate condition overall. Inshore waters have concentrations of chlorophyll a and total suspended solids that are above Great Barrier Reef Marine Park Water Quality Guidelines. A range of pesticides are detectable in inshore waters of the region.

Seagrass: Seagrass abundance is variable within the region. Seagrass meadows in the southern portion of the region have lower cover due to losses from cyclones prior to 2009, and many meadows have low numbers of reproductive structures, indicating reduced resilience to disturbance.

Coral: Corals are in good overall condition—northern reefs have generally better results than southern reefs.

What is being done?

Terrain Natural Resource Management works with landholders to promote the adoption of improved management practices that reduce nutrient, pesticide and sediment losses, primarily from sugarcane (the largest intensive agricultural use in the region), bananas, paw paws, mixed cropping on the Atherton Tablelands and grazing in both wet and dry country.