

# Australian Mangrove Restoration

## What are Mangroves?

Mangroves are shrub-like trees, with characteristic growth forms of aerial structural roots and exposed breathing roots.

## Executive Summary

Mangroves are native to Australian coast as the country has the third-largest mangrove forests worldwide and half of the world's mangrove species.<sup>1,2</sup> Mangroves are essential for coastal biodiversity and ecosystem. Unfortunately, runoff from agriculture and industry has entered into mangrove ecosystem polluting it severely. The urgency for conservation persists in order to protect coastal life. Restoring mangrove forests will help sequester carbon, reduce soil erosion and revitalize fish stocks.<sup>3</sup>



Figure 1. Mangrove on the Western side of Curtis Island on the Queensland coast in Australia<sup>6</sup>

## Why are Mangroves important?

- Provide several vital ecosystem services<sup>4</sup>
  - nursery habitats for estuarine and marine fishes
  - provisioning timber
  - regulating flood
  - storm and erosion control
  - provide suitable habitats for foraging, roosting and nesting sites for avian species<sup>5</sup>
- Buffer coastal communities against extreme weather events like hurricanes
- Sequester four times more carbon than rainforests can



Mangrove forest, Daintree National Park, Queensland  
Claire Howell

## What cause the loss of mangrove?

20-35% of the global mangrove extent has been lost over the last 50 years, as a result of anthropogenic activity.<sup>6</sup> Anthropogenic disturbances due to unsustainable mangrove resource use, exploitation of firewood, charcoal and timber, shrimp farming and industrial pollution have all pose threats to mangrove habitats.<sup>5</sup>



Figure 3. 10,000 hectares of mangroves dead across Northern Australia<sup>7</sup>

## Recommendations

- Much of the mangrove forests in Australia is privately owned, including by indigenous reserves. The conservation organizations should consider forming custody agreement between stakeholders.<sup>7</sup> This model in Ecuador provide legal protection for Indigenous communities who rely on mangroves for sustainable fishing. The model provides communication between shrimp farmers, NGOs, indigenous groups, and the government. It holds stakeholder accountable for providing surveillance and restoration of mangroves
- The government should also consider the negative impact of tourism on mangrove destruction. A potential strategy would be implementing national parks which would help control tourist visitation.
- Government should consider integrate mangroves into globally recognized system such as Ramsar Convention, World heritage Convention, etc. Implementing protected status would help decrease public access or industry use of mangrove forests.

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