



Grey or green?

Background reading for teachers

This reading gives you the background for each slide, with sources you can check.

Costs

The same global study found the median cost of building artificial breakwaters was USD 19,791 per metre, compared with USD 1,290 per metre for coral reef restoration projects.¹ These are global medians and real costs vary widely.

Extra benefits

Mangroves are among the most carbon-rich forests in the tropics, storing up to four times more carbon per hectare than most tropical forests.² They also act as nurseries for fish and protect water quality.

Planting well

Mangrove scientists recommend restoring mangroves where they once grew, especially in abandoned fishponds, rather than on seagrass beds or bare mudflats where seedlings often die.³

Sources

1. Ferrario, F. and others (2014). The effectiveness of coral reefs for coastal hazard risk reduction and adaptation. *Nature Communications* 5: 3794.
2. Donato, D.C. and others (2011). Mangroves among the most carbon-rich forests in the tropics. *Nature Geoscience*.
3. Primavera, J.H. and others (2013), discussed in ACRS 2016 conference paper on mangrove restoration. a-a-r-s.org

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