What should we consider in adapting to sea-level rise?

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To adapt, we can:



Avoid

Identify future 'no-build areas' and use planning tools to prevent new development in areas at risk now or in future







Accommodate

Continue to use the land but accommodate changes by building on piles, converting agriculture to fish farming or growing flood- or salt-tolerant crops







Protect

Use hard structures (eg sea walls) or soft solutions (eg dunes and vegetation) to protect land from the sea. May be prohibitively expensive, especially in the long term







Retreat

Withdraw, relocate or abandon assets that are at risk; ecosystems are allowed to retreat landward as sea levels rise







Attack

Reclaim land; used in areas of very high land values (eg The Netherlands, Hong Kong, Singapore). Generally not appropriate for Australia and has large economic and environmental costs





These options can be combined to develop a plan of action.

3 Choices will need to consider:

Cost of response



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Low – high Potential cost to government and regulators

Cost of avoided impacts

(including social and environmental costs and benefits as well as economic ones)



Use of the land

(including its strategic importance, for example as an airport, defence, port facility etc)







Value of the land and its assets

(including ecosystem service, amenity, historical, cultural values)



Length of protection







Short- to long-term protection



