We need to adapt fast to erosion and rising sea levels to manage coastal risks

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Receding.

Lead author Professor Bill Grace from the Australian Urban Design Research Centre at UWA said most coastal vulnerability studies carried out around Australia assumed policy options were to retreat by moving development landward, accommodate flooding or protect buildings and infrastructure, inferring that these were alternatives.

"This is misleading because eventual retreat is inevitable in vulnerable locations. Really the only decision is whether to retreat now, or provide interim protection until the risk becomes too high," Professor Grace said.

"Risks should be regularly assessed and retreat or protect options reassessed at certain trigger points as sea levels rise."

Professor Grace said interim protection might take the form of protecting areas of land near the coastline through either hard engineering measures such as seawalls or soft regenerative measures, such as sand nourishment, or protecting individual buildings and infrastructure.

"One drawback from building hard engineering structures is that it results in beach loss which has both social consequences and environmental impact on shoreline species," he said.

The researchers recommend using demarcation of a special control area in vulnerable coastal locations to control coastal development as sea levels rise.

"These sort of controls would prohibit major development but also provide conditions under which exceptions are allowable such as facilities that require direct coastal access," Professor Grace said.

"Most of Perth's coastline is set within coastal..."
foreshore reserves which would be expanded landwards as retreat is required, but as coastal foreshore reserves are designated by the State Government it's important for this to be a state-based decision, instead of local government."

Since the study was completed, the State Government's Coastal hazard risk management and adaptation planning guidelines has been updated and includes some of the recommendations in the article, including a planning framework and instruments for planned or managed retreat.


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