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CVE 512

ASSIGNMENT

1) STRATEGIES FOR REDUCTION OF COASTAL EROSION

1. Can give local scour an increased erosion down-drift.
2. Requires sediment supply.
3. Controlling cross shore sand movement is less effective.
4. Can have high maintenance costs (apart from rock), which. makes them less safe for public usage.
5. Rip current generation

2) HOW COASTALINES CAN BE PROTECTED FROM COASTAL EROSION

The coast has been defined as the zone where the land and sea meet. The main features of Pacific coasts are dominated by coral reefs, reef ridges, inter-tidal ridges, beaches, cliffs, wave actions and mangroves. Pacific coasts are designated important areas for providing vital Pa- cific livelihood. The coastal ecosystems, human settlement and other major supporting services and basic infrastructure are centred on the coastal zone. Coasts are being used for many rea- sons. The underlying problem is that Pacific coasts are in a state of crisis. A number of human engineering interventions over the past decade have contributed and accelerated the coastal erosion problem in the Pacific region. The Pacific coastline is over 50,532 km long. Both natu- ral processes and human engineering work are blamed for causing coastal erosion. This guide has been produced to inform and assist coastal experts, managers, and Pacific communities understand the various measures they can take to reduce coastal erosion.

Coastal protection interventions in the Pacific basically fall into two categories: non-structural adaptation and structural adaptation approaches. The best practices on coastal protection that are viewed as non-structural were identified as:

• Knowledge of coastal processes

• Policy on working alongside with nature and not against it

• Retreat, accommodate and protect approach

• Environmental Impact Assessment framework

• Foreshore regulation

• Locally Managed Marine Areas, Marine Protected Areas and Conservation Areas • National Biodiversity Strategy and Action Plan

• Integrated Coastal Zone Management approach

• Adopt ‘ridge to reef’ approach

• Established engineering standard framework

• Active Building Code.

3) WHY SOME COASTAL AREAS NEED PROTECTION AGAINST IMPACT OF COASTAL EROSION

Coastal protection provides defense against flooding and erosion, caused by waves and tides, winds, currents and littoral drift. Sea level rising, global climate change and melting of the ice caps will increase the need for coastal defense. By protecting against storm damage, flooding, and erosion, these living habitats keep people safe and can help mitigate economic loss of personal and public property, cultural landmarks and natural resources.