

Coastal Protection: A Tale of Two Approaches

Comparing Soft (Nature-Based) and Hard (Engineered) Strategies

Soft (Green / Nature-Based) Structures

Built with and for Nature



Uses natural materials like sand, vegetation, and living reefs to protect coastlines.

Absorbs and Adapts

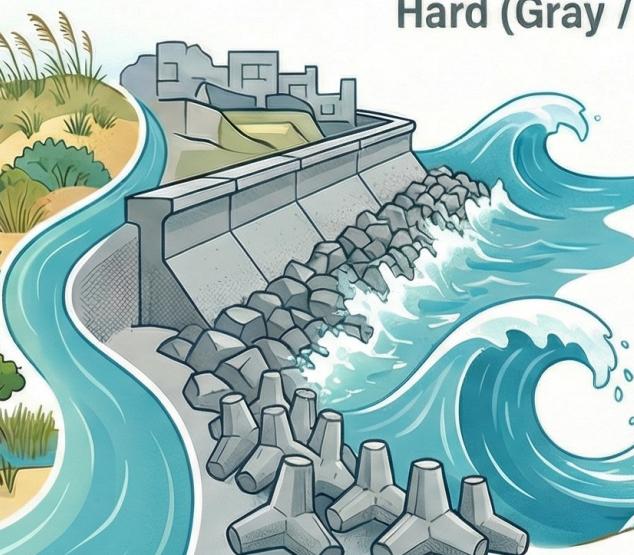


Dissipates wave energy across gentle slopes and is flexible enough to evolve with the coast.

Creates Ecological Co-Benefits



Enhances habitats for wildlife, improves water quality, and supports recreation.



Hard (Gray / Engineered) Structures

Engineered for Resistance



Constructed from materials like concrete, rock, and steel to form rigid barriers.

Reflects and Resists



Blocks wave energy with static, strong walls, which can increase erosion elsewhere.

Offers Limited Ecological Value



Provides immediate protection but disrupts natural processes and offers minimal habitat benefits.

