INSTALL GROYNES

OBJECTIVE

Reduce longshore drift and trap sediments.

DESCRIPTION

A groyne is a shore protection structure built perpendicular to the shoreline of the coast (or river), over the beach and into the shoreface (the area between the nearshore region and the inner continental shelf), to reduce longshore drift and trap sediments. A groyne field or system is a series of groynes acting together to protect a beach. Rock is often used as construction material, but wooden groynes, steel groynes, rubble-mound and sand-filled bag groynes, or groynes made of concrete elements can also be found. Rock groynes are generally preferred as they are more durable and absorb more wave energy due to their permeable nature. Timber or gabions may be used for temporary structures.

EXPECTED RESULTS

Protect certain parts of the coast and maintain upper beach stability.

RESULT INDICATORS

Area of protected coast [m^2]

INVOLVED ACTORS

Local communities and landowners, government at different levels.

EXPECTED TIMELINE FOR ACTION

- Long term (> 10 years)

BEST PRACTICES

- Flanders

CRITICALITIES

Possible adverse effects on adjacent beaches by causing downdrift erosion.

SCOPE OF THE ACTION

- Adaptation

TYPE OF PROPOSED ACTIONS

- Grey

SECTOR OF ACTION

- Coastal management

CLIMATE IMPACTS

- Coastal erosion
- Extreme precipitation
- Floods

IMPLEMENTATION SCALE

- Association of municipalities
- Municipality
- Province

SOURCE

https://climate-adapt.eea.europa.eu/metadata/adaptation-options/groynes-breakwaters-and-artificial-reefs