



Importance of Coastal Wetland Challenges and its Benefits

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DESCRIPTION

Coastal watersheds, more precisely those that drain into the Atlantic Ocean, Pacific Ocean, or Gulf of Mexico, contain both saltwater and freshwater wetlands. Salt marshes, fresh marshes, mangrove swamps, bottomland hardwood swamps, and shrubby depressions known as "pocosins" in the southeast of the United States are among the wetlands types found in coastal watersheds. About 40 million acres, or 38% of the total acreage of wetlands in the contiguous United States, are coastal wetlands.

Losses of coastal wetland habitat are brought on by both human activities and natural causes. Urban and rural development, agriculture, and silviculture are some human activities that could result in the loss of coastal wetlands. Through increased runoff or water withdrawals in the watershed, these land use changes might also have an indirect effect on surrounding wetlands by changing the hydrology. In freshwater marshes, this loss happens most frequently. The fact that more than half of Americans reside in coastal counties increases the pressure on coastal wetlands relative to inland places.

High energy events like erosion and inundation brought on by sea level rise and storms affect coastal wetlands naturally, especially estuarine and marine wetlands. The effects of these processes could be exacerbated by shoreline armoring and climate change. Estuarine wetlands usually guard the shoreline against erosion and floods, but as sea levels rise and urbanisation prevents wetlands from migrating inland, more wetlands will become open water. Louisiana is experiencing some of the most significant coastal wetland loss. Approximately 800,000 acres of Louisiana's wetlands would vanish in the course of a child born today, relocating the coastline inland by up to 33 miles in some places. There are major economic and societal repercussions from this habitat loss. For instance, the number and diversity of fish populations have decreased as a result of habitat loss and degradation. This thus reduces the availability of commercial and recreational fishing options.

Humans have dramatically changed maritime and coastal

environments over time, including coastal wetlands. Wetland habitat has been lost, degraded, and disconnected as a result of development, infrastructure, agriculture, and other human endeavours. Dikes, tide gates, and ditches, for instance, have cut off rivers from their former floodplains. Due to the reduced capacity of wetlands to absorb floodwaters, surrounding populations are at risk of regular flooding. Wetlands may face difficulties as a result of climate change's greater temperatures, more intense weather, and increasing sea levels. For instance, shallow coastal areas may be flooded by seawater as a result of rising sea levels. Mangroves, salt marshes, and other coastal wetlands may be at danger of becoming open water. Wetlands can also defend against climate change's effects, such as flooding brought on by more intense weather.

Wetlands along the coast provide crucial ecosystem services that affect our daily life. They offer access to safe drinking water, protection from flooding, fun activities, and more. Additionally, they offer crucial habitat for both commercial and recreational fishing. We may credit a coastal wetland for our love of seafood! Numerous fish species, including lobster, shrimp, oysters, crabs, striped bass, and many others, rely on coastal wetlands for habitat, food, and reproduction. Some of the planet's most productive ecosystems are coastal wetlands. Wetlands filter silt and absorb contaminants to serve as natural water filters. Water contamination is largely caused by runoff from hard surfaces like concrete, asphalt, and rooftops. Local rivers receive additional fertilisers, herbicides, and silt from development and agriculture. Wetlands filter and trap these contaminants, keeping rivers, bays, and beaches clean.

Floodwaters are naturally captured and briefly stored by wetlands. Wetlands can lessen the severity of downstream flooding and erosion by holding back some of the floodwaters and decreasing the rate at which water enters a river or stream. Wetlands can reduce overall flood heights, preventing disastrous flood damage to people, property, infrastructure, and agriculture. This safeguard saves coastal communities that are at risk.

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