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Abstract only

LAND LOSS, ITS REGIONAL IMPACTS

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Two-thirds of the world's population and more than 40 of its largest cities are located in coastal areas. In the United States 75% of the population lives in close proximity to the sea. Human occupancy within 2 kilometers of the ocean shore is now increasing at more than three times the national growth rate.

These cultural elements and associated physical forces are the shoreline's worst enemy. Together, they are also responsible for the loss of a considerable portion of America's wetlands.

In the United States, between 1955 and 1975, estimates of wetland losses ranged as high as 220,000 hectares annually, most of which was attributed to human activities. Louisiana may be the best example of coastal problems in the United States because its coastline has changed most often. Parts of the state's coast are disappearing at more than 30 meters a year.

With 41% of the country's coastal marshes, the destruction of Louisiana's alluvial wetlands is serious. Accelerated by an estimated sea level rise of 1.2 mm/year and a subsidence rate that exceeds 40 mm/year at the Mississippi delta, Louisiana is losing some of its most valuable land. The state annually loses 103.5 km² of its coastal marshes - every 49 minutes another hectare becomes open water. For the first time in recent history, the region is changing from an area of net land gain to an area of net land loss. The land that is lost is not site specific, but includes the entire coast. No sections are spared.

The barrier islands are retreating, coastal highways are falling into the Gulf of Mexico, and, in general, the region's "first line of defense" against hurricanes is threatened. Further, saltwater intrusion is endangering the area's drinking water and aquatic habitats. The problem is acute. Numerous local, state, and federal agencies have initiated "solutions" that include everything from beach nourishment, to the possibility of redirecting the Mississippi in an attempt to try to correct the problem. Nevertheless, the future will present some interesting problems, since "high" land, already scarce, will be at a premium. The cumulative economic effect will be measured in the billions of dollars.