

The Romanian Black Sea Coastal Zone

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The Romanian Black Sea coastal zone extends along 245 km bordering the Ukraine in the north and Bulgaria in the south. Its management should take into account the physiographical features of the limnographic marine and land areas and the degree to which lasting anthropic impact has altered them. The 170-180 km wide shelf zone at the mouths of the Danube narrows down to only 65-70 km southward.

Morphologically the coast itself comprises: the lower coast (max. 2 m); the deltaic-lagoony coast (165 km, 67%) undergoing accumulation and progression toward the Danube mouths (20-80 m/year), abrasion and regression (7-20 m/year); and a somewhat higher coast (5-35 m), with cliffs (80 km, 33%).

The land consists of low and wetland zones in the North (the Danube Delta: 3,446 sq. km on Romanian territory, the Razim-Simoie lagoony complex: 1,015 sq. km of which 863 sq. km are covered with lakes) and a higher territory in the South (the Dobrogea Plateau crossed by short valleys occupied by limans and lagoons (Tasaul, Siutghiol, Techirghiol, Mangalia etc.). Since tides are very low (9-12 cm), abrasion is caused exclusively by sea waves, while the alluvia carried by the Danube and redistributed by coastal sea currents are responsible for accumulation processes.

The slow sea level elevation (1.8-2 mm/year), the ever fewer Danube-water carried alluvia (by 60% over 1981-1990) as well as coastal water management works (port dikes, embankments of beaches, etc.) have enhanced coastal abrasion, affecting natural ecosystems, human settlements, ancient archaeological sites, etc.

Rectification and management works to make Sulina, one of the Danube's arms, fit for maritime navigation up to Braila port (170 km), the building of ports and industrial units, many spas and health resorts for helio-marine cure, have all enhanced man's pressure on the coastal zone.

With a view to protecting some animal and plant species, special natural landscapes, and archaeological sites, several areas have been placed under a differentiated protection regime. In 1990, the Danube Delta Biosphere reserve which covers 5,165 sq. km was set up. But all these measures do not solve area management problems; therefore a study defining and outlining this geographical zone is due to be elaborated by the Urban-Project Institute-Bucharest, in cooperation with the Institute of Geography and with other research units. The study is intended as a groundwork for promoting the required legislation - either a special law or existing draft bills - for the management of the territory, the environment and the Danube Delta Biosphere Reserve.