

**THE COASTAL VARIABILITY OF GEOMORPHOLOGICAL PROCESSES
AT THE ROMANIAN COAST IN THE LAST HALF OF CENTURY
- 1962-2012 -**

Răzvan MATEESCU, Alina SPINU, Dragos NICULESCU, Danut DIACONEASA

N.I.M.R.D. "Grigore Antipa", Blvd. Mamaia, no.300, Constanta, code 900581, Romania
phone: +40 241 540870 ext. 50, fax: +40 241 831274
email: razvan_doru@yahoo.com

Research conducted for the last five decades, showed significant shoreline change, between the emerged and submersed beach, and respectively, an aggravation of the coastal geomorphology, from one year to another, with particular socio-economic consequences and a major impact on the Romanian national natural heritage.

Coastal erosion emphasized a great development in winter when storms are frequent and occur at relatively small intervals. At annual level the coastal erosion, in relation with the land benchmark network system arranged by the State Water Board / CSA in 1962, they have been expanding especially in the last half century, with the hydrotechnical development made in the territory.

The negative consequences studied refers to withdrawal of the shoreline, loss of beach surfaces by erosion, and last but not list the effect on coastal ecosystems, including the marine ecosystem of the Danube Delta Biosphere Reserve.

The paper presents some aspects of specific coastline processes that determine the vulnerability of coastal shore sector. These are highlighted through the use of topographic measurements techniques GPS / GIS and applied to historical maps, satellite imagery and photogrammetry data are available, intensity / magnitude of coastal processes is reflected in variability of the shoreline, as well as multi-annual budget of sedimentary deposits on the two geomorphological units of the Romanian shore, and especially the processes afferent to the Danube Delta Coast.