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COASTAL EROSION ALONG NORTHERN MALTA: GEOMORPHOLOGICAL PROCESSES AND RISKS

ABSTRACT: FARRUGIA M.T., *Coastal Erosion along Northern Malta: geomorphological processes and risks.* (IT ISSN 0391-9838, 2008).

Coastal erosion is a global problem especially with 60 per cent of the population living within the coastal zone. Coastal erosion is considered as a hazard in addition to being a geomorphological process. In fact the range of listed hazards is a broad one with noisy and spectacular volcanic eruptions, devastating earthquakes and landslides to silent but relentless soil gullyng and coastal erosion. Three simultaneous processes can be identified: the long term retreat of coasts, the medium term degradation of beaches and the short term cliff erosion. In the Maltese Islands, however, such erosion is mostly considered as a process not as a hazard. In fact several authors that contributed to the study of the Maltese coasts consider coastal erosion as a geomorphological aspect of the coast that leads or else contributes to the creation of several erosional features spread along the Islands.

In contrast, this paper tackles mostly the hazard and risk aspect of the coast through two case studies: Ghajn Tuffieha Bay and Mistra Bay.

The mapping of coastal shoreline movements did not only help to identify the process of coastal erosion but also to note the areas that face risks from such hazard. Also the paper addresses several sustainable shoreline management objectives which need to be undertaken to safeguard shorelines from the coastal erosion hazard. Nonetheless it is important to note that coastal erosion is an on-going process which incorporates hazards and risks only when there is human interference with the coastal zone. Thus the use of sustainable measures is important to safeguard both the natural environment and the human aspect of the shoreline.

KEY WORDS: Coastal erosion, Hazard, Risk, Erosional features, Sustainable measures, Malta.

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