

MANAGEMENT OF CAOSTAL EROSION IN HISTORICAL BEACHES

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The coastline of Thailand is approximately 2,600 km long. Some part of it is subject to severe erosion and the loss of the beach is in consequence. The recession of shoreline in important areas such as historical, recreational, touristy, community areas is a serious problem which will cause effects to loss of economic opportunity and social development. This problem should be addressed and resolved in systematic approach. The priority of eroded area should be ranked with the engineering, environmental, economical and social analysis for the loss of property, rate of erosion, existing land use, values of environmental and natural resources. In the present study, the historical beaches between Phetchaburi river mouth and Pranburi river mouth which is approximately 105 km long are studied extensively in order to formulate a master plan. Aerial photograph in 1954, 1978 and 1995 were used with GIS to evaluate the beach losses area and erosion rate. There are totally 22 eroded areas. Eroded shoreline length is 29% while accreted shoreline is 31% and remaining shoreline is 40%. Even though the rate of shoreline recession is not high and less than 4m/year but the significance of historical area is necessarily to be protected with high ranking priority. Engineering approach for coastal protection in historical area is carried out and emphasized on soft measures with limited number of coastal structures for long term solution. Therefore, the function of recreational beach is maintained and improved. The coastal structures are designed in harmony with the historical beaches as much as possible as they could function effectively. The study was conducted not only engineering in order to find the causes of erosion but also in other aspects including legal, environmental, social, people participation and organization. The systematic approach and master plan formulated applied in the present study can be a guideline and format for coastal protection management in other areas in Thailand.