



مرکز بررسی‌ها و مطالعات دریایی

سازمان بنادر و دریانوردی به عنوان تنها مرجع حاکمیتی کشور در امور بندری، دریایی و کشتی‌رانی بازرگانی به منظور ایفای نقش مرجعیت دانشی خود و در راستای تحقق راهبردهای کلان نقشه جامع علمی کشور مبنی بر "حمایت از توسعه شبکه‌های تحقیقاتی و تسهیل انتقال و انتشار دانش و سامان‌دهی علمی" از طریق "استانداردسازی و اصلاح فرایندهای تولید، ثبت، داوری و سنجش و ایجاد بانک‌های اطلاعاتی یکپارچه برای نشریات، اختراعات و اکتشافات پژوهشگران"، اقدام به ارایه این اثر در سایت SID می‌نماید.



سازمان بنادر و دریانوردی



- **REQUIRED DATA ALGORITHM FOR SHORELINE MANAGEMENT PLAN ALONG THE Caspian Sea**

Mohammad Farid Niyayi, Head of Coastal Supervision office of Ports & Shipping Organization(PSO)

Email: M_F_NIYYATI@ir-pso.com

Shoreline management is only a part of Integrated Coastal Zone Management (ICZM). In fact Shoreline Management has to be the result of a good CZM-policy for one sector. Shoreline Management is managing a shoreline in such a way that the CZM-policy can be executed. Thus, maintaining the shoreline at those points where it is necessary should be one of the main objectives of each shoreline management plan.

The Caspian Sea is the largest salty lake in the world. The Caspian Sea is located in the north of Iran. Iranian coastline length along the Caspian Sea is in the order of 700 kilometers. There are three provinces which contains several coastal cities along the Caspian Sea. This part of Iran is very important from economical and tourist viewpoint. Now a days, the population is growing up very fast over there. The increase of coastal population has caused a lot of problems for the Iranian government. Moreover, the sea level rise caused a lot of problems like inundation for the coastal cities. As the historic data and sea level variations of the last previous decades show the sea level has raised about 180 centimeters during 18 years from 1979 up to 1997.

To obtain an extensive Shoreline Management Plan, it is necessary to access required data. To make special plan for the region it is vital to obtain satellite images with fine resolution.

The scale of this kind of plan is determined based on width of coastal stirrup. The width of coastal stirrup consists of two general section; 1- sea side section and 2- land side section. To determine the actual width for the shoreline management plan it is necessary to gather existing data and complete the information required for the plan. Those data and informations are as follows; 1-existing land use, 2- hydrodynamic specifications along the shoreline (like wind, wave climate, curent pattern, sea level variations, sea level rise, sediment characteristics, bed composition, bed slope, coastal profile, coastline changes, etc, 3-Aerial photograph and satellite images along the coastline (existing and histoical map and photos) and so on. In the present study it is determined an algorithm of required data for Shoreline Management Plan along the Caspian Sea.

Based on the above mentioned data and information it is possible to study for coastal classification and coastal zoning along the Caspian Sea. It is tried to suggest the required criteria for coastal classification and coastal zoning.

The other important executional aspects for shoreline management along the Caspian Sea is determination of set-back lines. A set-back line is a line landward of the coastline. Between the set-back line and the coast no activities are allowed. There may be set-back line for various activities (for example the set-back line for houses, roads, foodstalls, factories, and for sheltters, etc). As there is unknown sea level rise along the Caspian Sea, it is very important to determine set back line along the sea as a function of variation of coastline changes due to sea level rise, erosion and accresion. The present study determines required data and their resolutions for determination of the set back line along the Caspian Sea.