

Morphological Classification of Coastal Smartline to Integrated Coastal Zone Management: A case study from Nowshahr to Babolsar

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Abstract:

Nowshahr and Babolsar area is situated at coordinates of longitude from 51° 30' up to east 52° 45' and latitude 36° 18' and 55° up to north 36° 44', with an area of 2068.57 Km² in the northern part of Mazandaran Province. The main purpose of this research is morphological classification of coastal smartline. The term 'Smartline' refers to a GIS line map format which can allow rapid capture of diverse coastal data from both new mapping and preexisting datasets, into a single consistently-classified map which, in turn, can then be readily analyzed for many purposes. The results indicate that based on coastal Smartline method in this area, coasts can be classified in five classes: sandy beach, sandy beach with residential use, pebble beach, river mouth and human installations such as ports, breakwaters, etc. In this research, the coastal areas of Mazandaran Province from Nowshahr to Babolsar (116.52-km long) were classified according to geomorphological characters using the coastal Smartline method. Based on the result of this research, five morphological classes were identified in this area. These classes include: beach shore that is inhabited(class code:01), sandy beach(class code:02), pebble beach(class code:03), artificial(class code:04) and river mouth(class code:05).

Keywords: Coastal geomorphology, Caspian Sea, Coastal Smartline