Oceanography/Vol.9/No.35/Fall 2018/1/3-3

The Comparison of Temporal Shoreline Changes in the Gorganrood and Sefidrood Deltas Using the Digital Shoreline Analysis System (DSAS)

Leila, Amini[1]; Abdollahi Kakroodi, Ataollah[2*]

1- MSc. Student, Department of RS and GIS, Faculty of Geography, Tehran University, Tehran, Iran. Email: l.amini@ut.ac.ir

2- Assistant Professor, Department of RS and GIS, Faculty of Geography, Tehran University, Tehran, Iran. Email: a.a.kakroodi @ut.ac.ir

Received Date: April 7, 2018 **Corresponding Author* *Accepted Date: September 15, 2018*

Abstract

The shoreline situation is influenced by sea level changes, erosion and sedimentation processes. Its displacement has overshadowed human life and coastal facilities. The purpose of this study was to measure and compare the shoreline changes in the Gorganrood delta and Sefidrood delta by the Digital Shoreline Analysis System (DSAS). In this study, in order to extract the shoreline, Landsat imageries for the years 1986, 2000, and 2015 were used and shoreline changes at intervals of 50 meters were measured.

The results showed that the effect of sea level changes on displacement of shoreline was not the same in both of studied areas. During this 30-year period, the total rate of changes was estimated in Gorganrood delta and Sefidrood delta as 104.85 and -2.1 meters/year respectively. In fact, the Gorganrood delta had shown remarkable retrogression and the Sefidrood delta had shown little changes.

Keywords: *Shoreline changes, Water level, DSAS, Sefidrood delta, Gorganrood delta.*