

عنوان مقاله:

Investigating Long-Term Changes Trend in Vegetation TimeSeries of Sistan Plain on a Pixel-Based Scale Using MODISSensor Products of Terra Satellite

محل انتشار:

دومین کنفرانس بین المللی علم اطلاعات جغرافیایی بنیادها و کاربردهای بین رشته ای (سال: 1400)

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خلاصه مقاله:

In order to assess the vegetation changes trend of Sistan plain located in the eastern part of Iran, NDVI products from MODIS sensor on Terra satellite (MOD13A3) at 1 km spatial resolution were used over a 15-year period (2000-2014) for three months of April, May and June. After obtaining images from the land processes distributed active archive center, all 45 images downloaded for the studied area were mosaicked and geo-referenced to the Universal Transverse Mercator projection system by nearest-neighbor resampling method. In the next step, the images were converted into an ASCII format. By doing this, the total number of pixels within the studied area was 30080 pixels. Finally, the vegetation change trend was evaluated using Sen's slope estimator nonparametric method for three-month of study and on a pixel scale. The results of this research showed that the highest increasing changes trend in NDVI was observed in the northwest of the plain, and the highest decreasing changes trend in NDVI was observed in the east and center of the plain. In addition, according to the results of this study, the use of Sen's slope estimator nonparametric method in the studies of vegetation coverage variation trend in arid regions resulting from NDVI products from MODIS sensor can be very efficient and useful.

کلمات کلیدی:

NDVI, MODIS Sensor, Trend, Sistan Plain, Sen's Slope Estimator, Iran

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