



ORIGINAL ARTICLE

A STUDY OF VARIOUS DESERTIFICATION ASPECTS WITHIN THE PROVINCES OF HUSAYBAH AL-SHARQIYAH AAD ZAWIYA ISTIH IN THE ENVIRONMENT OF AL-ANBAR GOVERNORATE, IRAQ

Abdul Karem Ahmed Meklef¹, Ali Mohammed Raja^{1,*}, Sami Awad Alkubaisy¹ and Salam M. Saleh²

¹Center of Desert Studies, University of Anbar, Iraq.

²Anbar Agriculture Directorate, Iraq.

E-mail: alireja78@yahoo.com

Abstract: Desertification is one of the most dangerous environmental phenomena that threaten dry areas as a result of overlapping natural factors, human pressure and the extent of desertification. This research aims to study the manifestations of desertification operations in the provinces of Husaybah Al-Sharqiyah and Zawiyat Istih, which are within the agricultural districts in Al-Anbar Governorate, West of Baghdad city, with a distance 89.7 km in the west. The status of the land cover has been classified and the percentage of change is aimed at achieving food security and enhancing the requirements of agricultural development and thus obtaining economic returns and social welfare. Remote sensing technologies and geographic information systems have helped to provide and monitoring the land resources and determining the rates of breaching them using the programs (ERDAS Imagine version 9.1 and ArcGIS version 10). Desertification manifestations areas for the years 1999 and 2019 represented by the prevalence of salinization in the soil of the region, which reached an increase of about 32.2%. As well as, the state of urban expansion on agricultural lands, which Its increase rate was 11.3% of the total area of the study area and on the best agricultural soils in the two provinces, and its impact on the state of diminishing livestock. Several physical and chemical characteristics and the fertile soil condition (soil texture, electrical conductivity, acidic soil function, positive and negative ions, elements of large nutrients NPK) were studied. Also, the natural vegetation species have been diagnosed and spread, with a capacity of 3780 square hectares. Ten sites were used to study the spatial prediction of the saline characteristic of soils and to create a predictive soil map for saline distributions. The results of the chemical analysis of groundwater samples collected during the four seasons of the year showed that they occurred within the class C4S1 and this water is characterized by a low risk of sodium either. Its salinity is extremely at high risk.

Key words: Manifestations of desertification, The Eastern province of Husaybah and Zawiyat Istih, Land degradation, Soil salinity, Urban sprawl, GIS.

Cite this article

Abdul Karem Ahmed Meklef, Ali Mohammed Raja, Sami Awad Alkubaisy and Salam M. Saleh (2020). A Study of Various Desertification Aspects within the Provinces of Husaybah Al-Sharqiyah Aad Zawiyat Istih in the Environment of Al-Anbar Governorate, Iraq. *International Journal of Agricultural and Statistical Sciences*. DocID: <https://connectjournals.com/03899.2020.16.1701>