



Human Impact On Landscape And The Revenue In Wadi El Rayan Western Desert Egypt

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ABSTRACT

Wadi El-Rayan depression occupy about 1800 Km², it lies in 170 km southwest Cairo. Two lakes in El-Rayan depression initiated since 1973 in a big project when people inundate with excess agricultural sewage water. This article aim to estimate the landscape's response and it's revenue to human's intervention. Two new geomorphological maps, before and after the lakes prepared in the field to understand the landscape changes and its characteristics. Water fluctuation in El Rayan Lakes required multitemporal Landsat image.

Geomorphological landforms disappeared and others initiated and neo-ecosystem had been generated. Active elongated sand dune fields covered by water and the dune pattern changed from straight-linear pattern to braided pattern and sand sheets delineating that linear dunes lost activity. Hence avoid and avert dune's hazards on the agriculture west of Nile Valley. Landforms and geologic heritage demonstrated that there is an old lake under El Rayan depression. The artificial lakes lead to rise the water table which may abut attempts to utilize from the underground water my stored and water from artificial lakes may infiltrate and contaminate this water. The water volume changed in the southern lake from 501,2 km³ at 1984 to 1097,4 km³ at 1999.