

Research (2)

**Monitoring the Reduction in the Cultivated Area in Minya el Qamh
District, Sharqiyya Governorate, Egypt (1976-2014)
Using Remote Sensing and GIS Techniques**

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First Issue
Number (43), 2014**

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Abstract

The paper deals with the reduction in the cultivated area in Minya el Qamh District using remote sensing and GIS techniques, through the study of change detection and the construction and update of the agricultural land use maps, with the aim of defining the factors that led to the reduction in the cultivated area, the axes on which the reduction took place and the side effects of such a phenomenon.

The main conclusions of the study are:

The study used multi-date satellite images to extract the agricultural land use areas. The growth of the built-up areas was evident as a cause of the reduction in the cultivated area, resulting in the loss of 5484.75 feddans, representing 8.08% of the cultivated area.

The deterioration in the administrative control in the aftermath of the 2011 events was a major factor in the reduction in the cultivated area, resulting in an annual rate of reduction 1.683 Km² in the period 2011-2014.

The land loss was at the expense of the best arable soils as the "lands of first-rank of productivity" accounted for 98.54% of the loss.

The study recommends:

Pursuing of the use of satellite images in the change detection of the agricultural land use, as they are powerful tools that save time, effort and cost.

Activating the role of the government in monitoring and the prevention of the cases of the encroachments on the arable land, and enacting the necessary laws.

Facilitating the rules regulating the renovation of buildings in the ancient built-up areas, so as to reduce the need to build on the arable land.