

English Summary

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Qaliubiya governorate is located in the South East of Delta, east of the Damietta branch, stretching astronomically between latitudes $20^{\circ} 6' 30''$, $26^{\circ} 36' 30''$ N, and longitudes $0^{\circ} 3' 31''$, $20^{\circ} 35' 31''$ to the east, it is bounded to the north by the governorates of Dakahlia and Gharbia , and to the south by the

governorates of Cairo and Giza, and to the east by the governorate of Sharkia and to the West by Menoufia Governorate, and has an area of 1001.09 km² approximately. The study aims to monitor the change in land use patterns including: agricultural, residential, industrial, commercial and service, during the period from 1986 to 2012, and also the work of outlook during 2027 and 2050, and through the study, it proved the presence of some of the problems caused by the misuse of the land.

Although Qaliubiya is one of the agricultural governorates and the agricultural use in it ranked first among other uses, but the area has seen a clear decline during the study period, as it fell from 787.61 km² in 1968 to 688.19 km² in 2012, and is expected to reach the decline in 2027 to 645.37 km² and in 2050 to 589.33 km², and the main reason for the decline is the ongoing urban encroachment on agricultural land.

There is a change in the area of residential use, but in the increase, the area increased from 69.18 km² in 1986 to 131.38 km² in 2012 to, and is expected to continue to increase until it reaches 184.75 km² in 2027, and 341.56 km² in 2050 to, because the main reason for this is the continuous increase in the number of population, which requires the provision of spaces for housing, even if at the expense of other uses, including agricultural use.

The area of industrial use and trade in 1986 reached about 29.69 km², and increased in 2012 to 52.22 km², and is expected to continue to increase in 2027 to 71.58 km², and also to 126.18 km² in 2050, and similarly in the case of the use of service,

which recorded in 1986, about 9.42 km², and in 2012 about 22.29 km², and the area is expected to increase in 2027 to 34.66 km² and in 2050, about 77.23 km², is the use of the service, and continued for the rest of uses, because its increases depends on the increase of the other uses , and vice versa.

The misuse of the land resulted in many of the problems relating to each use, such as the problem of encroachment on agricultural land in the agricultural use, as the governorate lost during the study period, about 98.42 km², and recorded the highest rates of urban sprawl in the center of Banha that's about 21%, and the least in Shubra Al Khaimah approximately 5 %, and this expansion led to the loss of the finest types of soil, and especially the first and the second class, whose area decreased during the period from 1986 to 2012 by 60.07 km², or the equivalent of 61% of the total land lost.

The most prominent problems of Urban use in the phenomenon of the growth of slums in an informal way is there are about 67 slum area in the governorate, on an area of 24.2754 km², based mostly in Shubra Al Khaimah and Ekhsous, and the least in the cities of Kaha and Tookh and Kafr Shukr, the Urban use also suffers from interfering with many other uses, including the consequent additional problems.

Air pollution is the biggest problem of industrial use, especially resulting from the industries of chemical fertilizers and furniture industry, and Shubra Al Khaimah has recorded highest rates of air pollution for being the Castle industry in the county, in addition to the presence of air pollution caused by some craft

workshops such as making charcoal, and the resulting black smoke and the carbon monoxide and carbon dioxide, and nitrogen dioxide, causing diseases to the surrounding population of Almkmorh and pollutes the air and soil.

As for the commercial use, the most prominent problems are the spread of street vendors, random markets and the spread of slums. As for the use of the service, there are problems related to graves and petrol stations, the continuous urban sprawl has resulted in integrating some within residential areas, also the educational, health services and religious services are given randomly, as buildings and street vendors encroach on the roads, and we must reduce these problems to ensure proper utilization of land exploitation and maintain the continuity of the environment.