## Abstract

This study dealt with the process of urban encroachment on agricultural lands in Ramallah Al Bireh cities, along with its impacts and consequences; utilizing Geographic Information System (GIS) and Remote system (RS) techniques for exploring the extent and distribution of such encroachment. The rational beyond this study lies on the fact that both cities witnessed a large population increase accompanied with urban expansion on the expenses of the available agricultural and pastoral lands, resulting in a socio-economic and environmental impacts for this urbanization. The main objective of the study is, though, to follow up the temporal and spatial distribution of this urbanization process and its associated consequences.

To achieve the aforementioned objectives; historic, descriptive, as well as explorative geographic methods and data were used, aiming at the identification of the factors that are contributing to the current urbanization. In addition, interviews with key public and private personnel, as well as literature reviews of related studies were also an important tools for exploring the qualitative, and to a less extent, the quantitative aspects of the current urbanization process. For the spatial and temporal advancement of urbanization in the study area, chronological sequence of available aerial photos were used and utilizing a GIS and RS desktop environments.

The study found that the Israeli occupation had and still has the main role in restricting urban expansion in the Eastern part of Ramallah as well as the Northern part of Al Bireh; putting claims at the presence of Colonies and its associated security measures needed. Such imposed restriction has reflected itself on the urbanization extent, density, and its negative effects, where such urbanization took place in the opposite directions of both cities that have freeaccess for urbanization. Such urbanization was directed by the focus put on Ramallah and al Bireh, considering them as the core for the Palestinian Authority agglomeration and the concentration of associated different ministerial bodies. The study's main outcomes focused on the role of the Israeli occupation in shaping out both cities through the restrictions imposed, on urban growth in, certain parts of the cities and facilitating the growth in other parts, especially the severe restrictions put on Jerusalem with easing up and enlarging the role of Ramallah al Bireh as an alternative political capital for the Palestinian Authority.

In addition, the main factor that contributed to the rapid population growth was also correlated to the occupation due to the displacement of large number of the Palestinians from their homeland in 1948, as well as the severe restriction put on Palestinians since the second uprising in 2000, which enhanced many Palestinians worker and employees to change their permanent residency to Ramallah.

The net result of such rapid urbanization were obvious in the many social and environmental problems created, and increasing the consequent responsibilities of both cities' Municipalities as well as other authorities in charge. Another urban growth related problem is the traffic density and the associated traffic jam created as a result of increasing the number of private transportation means, as well as the solely two main entrances directing to both cities from outside.