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# RESIDENTIAL LAND USE CHANGE AND URBAN SPRAWL THROUGH ANALYTIC HIERARCHY PROCESS (AHP) IN MERSIN, TURKEY

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## Abstract

Urbanization is evolving as a result of technology, industrialization and economic development. Considering urban areas as a source of economic income in developing countries such as Turkey is one of the most important factors that negatively affect resources in urban planning studies. A skewed construction started in and around the cities and negative consequences such as the destruction of areas with high natural and economic values are the main problem that needs to be taken under control.This study aims to investigate increasing residential land-use demands that sprawling lands towards high-quality land. For this purpose, firstly, the study area has been examined in terms of 4 land uses as housing, agriculture, forest and tourism. Land use suitability analyzes were made by using the AHP method and the results obtained were transferred to the GIS database and a suitable land use map for the study area was created. Land use changes in 2010 and 2018 were determined and compared with the help of GIS techniques for each area use in the study. The analysis was used to determine land-use suitability for planning residential areas and their sprawl on agricultural, forest and tourism areas in the vicinity of urban structure. As a result of the study, it was determined that the total urban area increased by 50% in the 8-year period. The residential land use sprawl occurred in agriculture, forest and tourism areas with suitable or semi-suitable potentials. Suggestions have been made in order not to continue the loss of land with high potential in different sectors.

*Key words:* analytic hierarchy process (ahp), land suitability analysis, urban planning

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