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**ASSESSING URBAN SPRAWL EFFECT OF TRANSPORTATION INVESTMENTS USING REMOTE SENSING DATA AND GIS METHODS: THE CASE OF ANKARA PROTOCOL ROAD**

Seyma Elif Dincer, Furkan Akdemir, Hayri Ulvi, Hidir Duzkaya

Gazi University, Urban Transportation Technology, Accessibility Implementation and Research Center (UTTAC), 06570, Ankara, Turkey

**ABSTRACT**

In developing countries such as Turkey, transportation investments maintain their popularity. With these investments, short-term solutions are being sought for urban infrastructure problems that are the result of growth-based model in construction sector. The main purpose of this study is to examine the relationship between transportation investments and urban sprawl. To this end, in the capital of Turkey, Ankara, the results of transportation investment in the protocol road that is the main route which provides transportation service to the north of the city, are evaluated in terms of urban sprawl. In this evaluation, Landsat satellite images of the study area are obtained every four years between 2004 and 2016, and land use is classified by remote sensing and GIS methods. As a result of this classification, it is observed that the built-up areas increased by 164 % and the total population by 33 %. Since the population of Ankara has increased by 27% between 2004 and 2016, it is seen that the study area has improved more rapidly with the contribution of the transportation investment, compared with the general urban area.

Corresponding Author: Hayri Ulvi