

Assessing the functional capabilities of District 5 of Tabriz City In accordance with the principles of Urban Smart Growth

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Abstract

Smart urban growth is the adaptation of the current and future physical, social and economic needs of urban communities based on the three concepts of land use mixing, accessibility and density in urban environments and creating places with unique features to reduce urban development costs and citizens' comfort. The purpose of this study is to investigate and assess the status of intelligent growth in the 5th district of Tabriz. This research is applied in terms of purpose and descriptive-analytical in terms of methodology. To conduct this research, three indicators of intelligent growth including physical management and protection of open spaces, land use mixing and access and transportation network were studied. In the first part of the research, the physical development of the region was assessed during three time periods of 63, 87 and 95. In the second part of the study, the land use mix of the local access network and the public transport fleet of buses, taxis and subways and the quality of the access network were evaluated. Arc Gis and Google Earth software as well as network analyzer tools and models and Z-score were used in the research process. Findings show that in the dimension of land use mixing index, according to the function of region-area, residential, commercial and tourism and tourism uses have had the highest volume of mixing that the final mixing index was evaluated with a high value of 1.6. In the final part, in order to determine the access status and quality of public fleet services through network analysis tools, considering the distance space of Manhattan in a space of 500 meters, the radius of access to communication routes in ArcMap environment was modeled. For taxis, buses and then subways were evaluated as having the best condition. The results show that the management of physical development in the 5th district of Tabriz is associated with fluctuations and its physical development after the 87th decade onwards takes a reproductive process, the most development process of which is outside the region in It was the eastern border.

Keywords: urban smart growth, transportation planning, sustainable urban development, spatial pattern of land use, District 5 of Tabriz City.