

---

## Investigation of Changes in Construction Densities in Metropolitan Areas of Iran (The Case Study of Zafaranieh Town, Tabriz Metropolis)

Somayyeh Alizadeh<sup>1\*</sup>, Reza Samimi

1. Master of Geography and Urban Planning, Faculty of Planning and Environmental Sciences, University of Tabriz, Tabriz, Iran.
2. Associate Professor, Department of Geography and Urban Planning, Faculty of Planning and Environmental Sciences, University of Tabriz, Tabriz, Iran.

Received: 2021 May 24

Accepted: 2021 October 06

---

### Abstract

The financial inability of executive agents and urban management in helping housing programs and financing urban services has been effective in the process of formation and nature of urban density as well as the realization of unforeseen densities in urban development plans. Therefore, in recent times, the policy of selling excess building density by municipalities has caused disruption in the country's urban system, space organization, and urban appearance. Due to these factors, there is a lack of service uses and an increase in mass congestion, which over time has led to cities becoming a platform for land and housing. In the present article, we intend to study the changes in building density in Zafaranieh town of Tabriz to measure the paradigms affecting the formation of building densities in the study area. The method of the present research is applied in terms of purpose and descriptive-analytical research in terms of nature. Accordingly, two main methods of field-library have been used to collect data and information. Thus, after reviewing the theoretical foundations of the research, first, using the approved plans of the city of Tabriz, the number of floors and criteria related to urban densities of the study area during the period 1399 - 1390 were extracted; Then, by referring to the Municipality of Tabriz Region 2, the number of permits issued, the number of building floors and the revenues from the sale of density were determined. To analyze the data, using Arc GIS geographic information system and models such as CrossTeb, Holdern model, and Shannon model, changes in the number of building floors, the growth rate of saffron town, and the distribution of altered parts have been analyzed. The results of this study show that in the period 1399 - 1390, changes in building density in the study area were quite noticeable that the most important factor in this field was the sale of density to provide municipal revenue.

Volume 2, Issue 5, Autumn 2021, Pages 15-31  
DOR: 20.1001.1.27173747.1400.3.2.2.3

---

**Keywords:** Building density Population density building permits Tabriz Metropolis.

---