Identification and prioritization of urban deteriorated texture in order to reduce the earthquake-induced vulnerability Case study: Region 5 in Esfahan

Mohsen Saghaei

Assistant professor of Geography and Urban planning payam noor University, Isfahan ,Iran

Extended **Abstract**

Introduction

The worn out textures are one of a variety of urban textures that are spatially unstable due to physical deterioration and inappropriate enjoyment and the existence of vulnerable infrastructures and are one of the main challenges facing most cities and especially metropolises. Currently, 53 spots of worn-out texture spots have been identified in 15 regions of Esfahan which now have 350,000 inhabitants living in these areas. Meanwhile, the extent of the worn out texture in the Isfahan's region 5 is 69.75 hectares. This article seeks the extent to which the identification and prioritization of worn out textures within the scope of the study area can affect the revival and reduction of their vulnerability.

Methodology

Regarding the purpose of the research, this research is an applied type and the method of studying and analyzing information and data is a descriptive-survey method. According to the country's standards, the criteria of the gravels fineness, impermeability, and instability have been taken into considerations, and analyses were carried out using the AHP model and the GIS software.

Discussion

The main objective of this research is to prioritize worn out textures for restoration and renovation, the first step of which is to identify such textures. The criteria and indices which have been considered in this research include: material genus, the degree of deterioration, the age and the extent of the real estate, and to analyze the desirability and prioritization of worn out texture in order to modify the texture erosion, the indexes should be scored after defining the criteria and indexes and performing the initial classification. In the next step, scoring of the internal values of each of the indices was done and in the final stage, the coefficient of importance of each criterion was determined using the AHP model and the Thomas hourly table and the criteria with the same weight were combined and the final output was obtained.

Conclusion

The results indicate that the lack of facilities, utilities and infrastructure has led to the migration of local residents to other areas and negatively impacted the population growth rate in recent years. On the other hand, due to the

socioeconomic condition of the inhabitants of the texture, the process of reconstruction and renovation inside the texture has slowed down and this factor has exacerbated the deterioration of the texture.

Keywords: Worn out texture, Vulnerability, Earthquake, Esfahan region 5