

# Evaluation and zoning of physical resilience of the Tehran's district ۱۲ Against natural disaste

Mostafa Khazaee\*, Javad Abdi Torbaghan, Mohammadreza farzad behtash

۱. University lecturer and Ph.D. Geography and Urban Planning, Shahid Beheshti  
University.mo\_khazaee@sbu.ac.ir

۲. Msc of Geography and Urban Planning, Shahid Beheshti [University. javadabdykashmar@gmail.com](mailto:javadabdykashmar@gmail.com)

۳. lecture of Tehran university.tehran. farzad.behtash@gmail.com

## Abstract

One of the problems world's cities facing with natural disasters. One of the main goals of urban planning and design is necessity reduce vulnerability of cities against natural disasters. Recognition the vulnerability of urban districts against natural disasters is very necessary in order to strengthen resilience and reduce the vulnerability of them. Tehran's district ۱۲ as the oldest district and the main source of the city of Tehran, and the district has large amount of important functions (the great market of Tehran and embassies and tourist buildings, etc.), which physical condition of structures and buildings (physical resilience) is unfavorable. Therefore, in order to description this situation and assessment and identification of the physical resilience of the district we used ۶ indicators; the life buildings, the height buildings, the number of buildings floors, the area of parcels and the width of streets. The research method of this paper is quantity and the purpose of that is applicable. Data collection method was library and field observations. Then, in relative to the purpose of this research, we surveyed and evaluated the physical resilience of Tehran's district ۱۲ that finally, by the AHP technique and GIS maps, we showed the district physical vulnerability

**Keywords:** Physical Resilience, Tehran's district ۱۲, Natural Disasters.

## ۱. Introduction

Cities, as the most complicated man-made, face a wide range of risks, both because of increased risks and because of their multiple vulnerabilities and despite the advent of new technologies, environmental hazards in many of the world's cities are still incidental and critical.

In a report on natural disasters and sustainable development, the UN has made clear the following questions: Does sustainable development, with a view to reducing poverty and protecting the environment, can be successful without taking into account the risks and natural hazards and their effects? Can the land be able to withstand the costs and damage caused by accidents? (Nazarpour et al., ۱۳۹۶: ۳)[۱]. The shortest answer to these questions is no.

Therefore, surveying and measuring the extent and resilience of cities against of environmental hazards and its related issues is essential. Recent events in recent years indicate that societies and individuals are increasingly vulnerable and the risks have increased.