Measurement of critical land use in terms of passive defense in the metropolis of Ahvaz

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Extended Abstract

Introduction
Ahvaz metropolis as the center of the oil and gas industry is located in the southern part of Iran. The metropolis has the potential to be attacked since century ago. The passive defense has been neglected for the city because it sensitive in some aspects including policy (center of Khuzestan province, north -south highway, transit function, and etc.), Security (near the western border of the country, separatist groups, history of aggression, and etc.), economy (factories, several strategic industries such as steel, gas, oil, sugar, etc.), and socio-cultural issues (diversity in ideas and sensitivity to ethnic and linguistic diversity, and etc.).The purposes of the research are to make a zonation of the risks of critical applications in Ahvaz, to assess the compatibility of neighboring landuses in terms of passive defense, and to clarify the risks in the metropolitan area.

Methodology
This is an applied research based on the objective of development with a descriptive - analytic approach. We have used quantitative and qualitative applications by ArcGIS and Excel. In this study, the entire metropolis of Ahvaz is considered through critical applications. After identifying the critical applications, they can be divided in five categories (five applications) and then GIS layers have been prepared by ArcGIS. The research is focused on the following objectives:

   A) Assessment of location - proximity to critical applications
   B) Evaluation of the spatial distribution (consistency and density) of critical applications

The research have been conducted in four steps including (1) preparing necessary land use layers, (2) correlation of the layers and maps, (3) integration of the maps by proximity functions, (4) critical assessment of the land use adjustment by passive defense.

Results and discussion
The land use and use of urban spaces are classified on the basis of a defense perspective; it

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should be robust measure of proximity. In this regard, it can be in the form of passive defense compatibility matrix to evaluate the logic of urban land intensive use. From the perspective of two or more adjacent passive defense options, the alternatives must also create vulnerabilities. It should also trigger the vicinity of the incident and the increasing risk of damage but should complement each other and prevent the spread of risk and vulnerability.

Conclusion

The results of this research have indicated that the landuses are in an incorrect location for critical applications with neighboring uses. Thus, in case of an attack, the vulnerability of life and property will be more. For compatibility with the existing range of vulnerabilities, residential and other uses will be transfered, and the amount of human and financial can be increased. With the distribution of critical applications, position of each land use relative to other members of the special life was studied. This means that the number of critical applications and residential area in the space is designated for each critical use. A total of 14 members to the special account within the desired density is totally inappropriate and a distance of 400 meters from the sanctuary for the desired application does not comply with other options. Each of these critical applications or other sensitive uses located in the neighborhood is entirely inappropriate. The improper distribution of critical applications leads to a special account of the risks to the land use picks from the passive defense

Keywords: passive defense, metropolitan Ahvaz, special land use, spatial distribution