Integration of villages in spatial-skeletal structure of cities
(Case Study: City of Mashhad)

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1. INTRODUCTION
Mashhad metropolitan is the largest population center in the east of Iran and because of its extreme centralization has a very wide sphere of influence and constantly is adding to its spatial range and absorbs villages located around it. Before the 1960s, its population doubled in a period of almost forty years, but after the 1960s, its population has doubled almost every ten years. Due to increasing population, Mashhad faced a horizontal or a severe spiral development, to the extent that during 1976 to 1986 despite doubling of its population, the area of the city tripled and therefore incorporated many villages into itself. Accordingly, this paper aims to identify incorporated points, analyze the process of integration and its contribution in increasing the metropolitan population and explore the future prospects.

2. METHODOLOGY
This research was conducted in a descriptive-analytical method and has used field studies and library research to get required data, documents and statistical publications of census (1956-2006). Statistical population of this study included all the villages integrated into the Mashhad over the last 50 years. To predict and estimate, the linear regression was used. SPSS and Excel software packages were used to produce output tables and charts, and Arc GIS software package was used to display the spatial distribution of the villages.

3. DISCUSSION
The study results showed that due to constant development of the city over the last 50 years (1956-2006), 90 villages with a population of 184,400 were integrated into Mashhad. During this process, 7.6 percent of population increase of Mashhad was because of integration of villages. In 1976 to1986, as a result of Islamic revolution and Imposed War, Mashhad underwent intense skeletal changes and consequently had the highest number of integrated villages. Using the data collected from the last 50 years,

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linear regression was used to estimate and forecast the population of the villages integrated into Mashhad over the next 50 years (2006-2056). According to the estimate, integration of incorporated villages in the coming years would have a growing trend. Therefore, the population of incorporated villages in Mashhad over the next 50 years (2006-2056) will exceed 700,000.

4. CONCLUSION
Currently, there are more than 200 marginalized centers in Mashhad with a population over one million people, a significant number of which are in rural areas. In such a situation, to prevent the degeneration of rural areas and agricultural land use and their integration into broader body of Mashhad, it is quite essential to address the issue. One of the most important measures in this regard is the effective role of governments. Indeed, countryside issue should be solved with regard to appropriate regional planning by governments. The root cause of the current turmoil in the city is not the city itself, but in the rural areas and inappropriate economic and living conditions that govern these areas and disrupt the relationship between urban and rural areas. Generally, in order to solve the large cities' countryside issues in general and particularly the city of Mashhad, it is essential to do some appropriate urban-regional planning and give due attention to rural planning and this needs authorities and planners' careful considerations.

Keywords: Mashhad, integration villages, space - skeletal structure, history geography of city.

References (In Persian)

References (In English)