

An Investigation of Tourism Impact on Urban and Rural Land Use Pattern Changes (A Case Study: Kelardasht County)

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Received: 11 March 2018

Accepted: 26 May 2018

EXTENDED ABSTRACT

Introduction

Land use change is one of the vivid results of human impacts on environment, thus analysis of land use change is counted as crucial topic in the ecosystem researches (Dong et al, 2008). Gathering information of the land use pattern and its changes during a long period is of the basic preconditions in order to take advantage of land in a proper way (Karimi and Bayram Komaki, 2013). During the last decades human related land use changes are known as a process that stem from the global environmental changes. In spite of global importance of land use planning and management in touristic areas, such a crucial issue has been neglected in Iran. Regarding to importance of the research on the tourism and agriculture interactions, this paper aims to investigate on the relationship of tourism and agriculture in the area of Kelardasht as a case study of the northern parts of Iran. The case study area has experienced rapid development of second homes and drastic land use changes, thus land management system in the area has faced to deep challenges.

Methodology

This is a descriptive and analytical research based on the field works and remote sensing techniques. Land Sat Satellite images, maps and survey data were employed in this research. The process of mapping was based on the supervised methods in which field research was fulfilled to correct land use classification process. All samples were classified into following groups: farm land, forest, built area and pasture. Samples were selected from wide and extended range to reach proper domain. Maximum likelihood method was employed to pixel classification. In this research Erdas Software 2014 and ArcGIS 10.4 were used to create raster and vector layers.

Results and Discussion

Research results in 1998 shows that the second home area in Kelardasht was 274345 square meters (Omran, Pajohesj and Memary consultant, 1998). The mentioned land use area reached 6638447.7 square meter in 2005. Indeed, the growth rate of second home was 141.9 during 1998 up to 2005. Second homes made up for 21/1 percent of the city area in 1998. This ratio went up to 51/06 percent in 2005. However, the ratio of second home to the residential land use was 63/4 percent that reach 68/7 percent in 2005.

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Field work results show that more than 30 percent of the residential land uses in the urban neighborhoods belong to second homes in Kelardasht. But this ratio moves up to more than 70 percent in neighborhoods such as GarakPas and Bandeben. According to results, second homes make up for more than 40 percent of houses in the rural areas of Kelardasht. This ratio is more than 70 percent in villages like Osman Kola and Lash Sar.

This result shows the main role of second homes in land use pattern of the case study area. According to Land Sat TM and IRS images the total area of farm lands were 8718 hectares in 1987. But by second home development especially in early years of 1990s, farm lands area decreased to 8564.2 hectares. Indeed, 2 percent of farm lands (154 hectares) destroyed during 13 years. The area of farm lands decreased to 6966 hectares in 2009 (19 percent decrease). During 2009-2015 farm land area decreased to 5501.9 hectares that means 21 percent land loses.

Conclusion

This research aimed to investigate impacts of second home development on land use change in Kelardasht area as one of the important tourism destinations in Iran. The results show, tourism has had serious role in land use change from farm lands or natural areas into second home uses during last decades. As it is mentioned before, second homes make up for 70 percent of residential area in some urban and rural areas of Kelardasht.

The general result shows that tourism development in Kelardasht was against the sustainable principles. Indeed, tourism sector followed a spontaneous growth model by which huge areas of natural resources and farm lands diminished in a short period of time. Land is the main ecologic resource in every tourism destination, thus destroying of land will lead to destroying of tourism resource.

This research has faced to some limitation to get updated local information and statistics. There are unanswered questions on the reasons on rapid land use changes in the area that could be done by following researches.

Keywords: tourism, second house, land use change, rural and urban areas, Kelardasht County