

Spatial analysis of changes caused by the cultivation of saffron (A Case Study: Roshtkhar Rural district)

Abstract

Among agricultural products, *Crocus sativus* L. Among the most valuable products according to its own characteristics, There is the possibility of expanding production and exports. In most parts of the country due to low water requirements of the product and its proper compatibility with the environment, There is the possibility of cultivation of this plant. Therefore, in recent years, especially in rural saffron cultivation strategic product Roshtkhar located in Khorasan Razavi province has increased. In this regard, The aim of this study was to analyze the spatial changes caused by the cultivation of saffron in the district Roshtkhar. This research is descriptive-analytic method. For this purpose, The documentary and initial visits to the field, A wide range of indicators of economic, social and environmental conditions in accordance with the villages was determined. And data collection in the villages and households in the sample based on selective criteria and was conducted through questionnaires. Research field studies, There have been two families in the village and that In this regard The number of rural villages Roshtkhar 383 questionnaires distributed in proportion to the population of each village, Analyses of developments arising from the development stage saffron consists of four main dimensions of environmental, economic, social and physical - space is investigated. Analysis using statistical software and statistical methods such as Mann-Whitney u test and Kendall's correlation coefficient was used. Also using the analytical hierarchy process (Topsis) to rank villagers of Roshtkhar regarding the indicators discussed changes caused by the cultivation of saffron And finally using the software ArcGis spatial distribution of results is presented in the form of maps. The results indicate that the area under cultivation and the effects of strategic products as well as opportunities and challenges ahead are significant differences in the saffron production And on the other hand, the area under cultivation and the level of physical changes as well as the mean area under cultivation and the return of refugees in the villages there is a significant relationship.

Key words: *crocus Sativus* L, Production effects, Rural households, Roshtkhar Rural district



University of Zabol
Graduate School
Faculty of Humanities and Literature
Department of Geography

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Supervisor:
Dr. S. Asghari Lafmejani

Advisor:
Dr. GH. Fazelnia

By:
Ali Izadi

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