

Role of using indigenous knowledge in access to agro-ecosystems health (Case study: agro-ecosystems in Birjand region)

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Achievement to a sustainable agricultural system requires change in visions regarding indigenous agriculture and underlining it. This indigenous knowledge is acquired by farmers through real world experiences and differs from the formal education –based knowledge of researches and experts. Being Indigenous is considered as a basis of scientific, efficient and successful establishment to achieve sustainable agriculture and health of agro-ecosystems. Therefore, a research was made in 2012 to assess the role of indicator of using indigenous knowledge in health of agro-ecosystems in Birjand region during 1991 and 2011. According to the results, the indicator had a falling trend of 0.4% during the research period as a consequence of decrease in rural population which had a positive correlation with the falling trend of this indicator by 0.871** and increase in the number of government employees in agriculture sector which had a weak relation with rural farmers and low rate of interest in using rural experiences. Moreover, decreasing the use of rural knowledge led to an increase in indicators of abandoned agricultural lands and the use of chemicals in agricultural lands with negative correlation of -0.798** and -0.638** respectively.

Keywords: agro-ecosystem health, Sustainable agriculture, indigenous knowledge, indicator, rural population