

Abstract

This study was conducted to evaluate the ecological and socio-economical sustainability in tea orchards of Guilan province, Iran. The study included two groups of growers: those with less than one ha of the farm and those with more than one ha. The samples sizes (100 orchards) were determined based on Cochran method to be evaluated in this study. Data were analyzed using Multi Criteria Analysis. The results showed that growers owned less than one ha farm had higher levels of education and were younger on average. These growers have shown more interest in the implementation of new technologies in their farming system. In contrast, the other group mostly relied on old well-established methodologies. In terms of ecological sustainability, small holders had lower levels of biodiversity in their farm whereas in larger farms more diversified crops were grown. No significant difference was found between these two groups regarding the application of pesticides in tea orchards. In the grower's point of view, economic factors such as guaranteed purchase of products by the government, and commodity insurance had highly important contribution to sustainability following by other governmental supports; knowledge and experience of the farmer, easy access to off-farm inputs, as well as having a highly productive soil were placed in the later. No significant difference was found between the two groups of growers in terms of yield and quality of the products, however, market price fluctuations highly affect the income of growers per ha of land. Regarding sociological variables, an appropriate human capital exists in the province but wealthy people showed higher skills, education, and knowledge. Moreover, benefit from better communication skills. As a summary, the tea production in this province is in good condition and the major obstacle to develop and improve the production of this commodity across the province is a lack of fund and capital.

Keywords: Quantifying sustainability, social sustainability, economic sustainability, ecological knowledge



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