

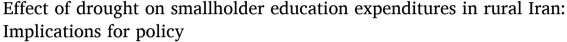
Contents lists available at ScienceDirect

Journal of Environmental Management

journal homepage: http://www.elsevier.com/locate/jenvman



Research article







^b Department of Agricultural Economics, College of Agriculture, Shiraz University, Iran

ARTICLE INFO

Klaus Müller a,c

Keywords: Climatic extremes Drought Education expenditure Consumption pattern

ABSTRACT

Drought is a major global environmental challenge. It affects the livelihoods of many people, mainly in developing countries. Iran is one of the most affected and vulnerable countries in the Middle East to drought. In this paper, we present a microlevel analysis by employing the Tobit multiplicative heteroscedasticity regression to examine the effects of drought on small farm household education expenditures in rural Iran. We collected primary data from a sample of 300 smallholders in Marvdasht County in Fars Province of Iran. The results revealed a negative relationship between the farm income and education expenditures. This means that the farm households in rural Iran that were affected by the drought increased their expenditures on education for their children. The analysis of income elasticity indicated that a one percent decrease in farm income led to a 0.86% increase in education expenditures, which indicated that the education expenditures were necessary. Furthermore, we observed that in drought-affected families, girls were more likely to be pulled out of university education than were boys; however, for school education, there were no significant differences between the boys and girls. Our findings revealed the need to provide improved facilities and further finances for education expenditures, especially for female university students, and to formulate environmental management policies that include the provision of education facilities by the government of Iran in drought-affected villages. Our findings also shed light on the presence of positive externalities and the important role of education in helping rural households better cope with the negative repercussions of drought on their livelihoods.



^c Economics and Politics of Rural Areas. Albrecht Daniel Thaer Institute of Agricultural and Horticultural Sciences, Humboldt University, 10117 Berlin, Germany

d Department of Environmental Economics, Eberswalde University for Sustainable Development, Schicklerstraβe 5, 16225 Eberswalde, Germany