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Determinants of Participation in Watershed Development Projects in Khorasan, Iran

A. Nasrabadi[1], E. Karami[2], and M. Ahmadvand[3*]

ABSTRACT

Study of factors affecting farmers' participation in watershed development is crucial for planners to ensure that projects fit local beliefs, values, and conditions. A cross sectional survey was conducted to identify factors influencing farmers' participation in watershed development projects in the Khorasan region of Iran. A two-stage random sampling technique was employed to select a representative sample. A total of 139 farmers (76 participants, *vs.* 63 non-participants) from 65 project villages were selected and interviewed with the aid of a pre-tested interview schedule containing open-ended as well as closed questions. The discriminant analysis indicated that such variables as legal title to dry lands, hectares and value of dry lands, age, technical knowledge, level of education, visiting of the model farmers, and the horizon of watershed planning, could correctly classify about 80 percent of watershed farmers as participant *vs*. non-participants. For better understanding of these determinants, a multiple regression analysis was also carried out which indicated that "*technical knowledge*" and "*hectares as well as value of dry land*" were the key determinants of farmers' participation in watershed development projects.

Keywords: Discriminants analysis, Iran, Participatory approach, Watershed development.

INTRODUCTION

The vastest parts of Iran are semi-arid, with an average annual precipitation of 250 mm (30% of global mean precipitation) (Karami and Hayati, 2005) and water is increasingly becoming scarce worldwide (Foltz, 2002; Keshavarz *et al*., 2013). Recent studies have indicated that the total annual precipitation in Iran is about 430 billion m^3 of which about 20 percent is lost in flash floods to the seas (Foltz, 2002; Mohamadnia and Kowsar, 2003). Therefore, water resource development is imperative as regards sustainable agriculture in Iran (Forouzani and Karami, 2011; Sharifzadeh *et al*., 2012).

Watershed Development Programs (WDPs) are considered as effective in addressing the challenges of water scarcity. They consider a holistic approach for controlling and optimizing the use of surface water and recharging groundwater (Ninan and Lakshmikanthamma, 2001). WDPs have been initiated to improve and sustain productivity as well as the production potential in dry and semi-arid regions, through adoption of appropriate production and conservation techniques. Currently, WDPs have been accorded high priority among all the developmental plans in Iran.

[1] Department of Education, Agricultural Support Services Company (ASSC), Ministry of Jihad-e-Agriculture, Tehran, Islamic Republic of Iran.
[2] Department of Agricultural Extension and Education, College of Agriculture, Shiraz University, Shiraz, Islamic Republic of Iran.
[3]Department of Rural Development Management, Faculty of Agriculture, Yasouj University, Yasouj, Islamic Republic of Iran.
*Corresponding author; e-mail: mahmadvand@yu.ac.ir