**Unlimited use of irrigation water resources in rural Iran: No-win competition**

Marzieh Keshavarz

Department of Agriculture, Payame Noor University, PO Box 19395- 3697, Tehran, Iran.

**Abstract**

Water shortage is a virtually common feature in many arid and semi-arid areas such as Iran. It is also projected that water stress will be exacerbated in such regions because of climate change. Iran is extremely vulnerable to climate change impacts due to its high dependency on climate-sensitive agriculture. While currently agriculture accounts for 90% of water withdrawals in Iran, it is projected that demand for irrigation water will rise in the near future. If agriculture production and livelihoods are to be sustained at current levels, the irrigation water will have to be used more productively. However, high water requirement crops such as rice is still growing in some arid and semi-arid regions of Iran. Using qualitative research method at the farm family level, this study aims to elucidate the likely reasons for cultivating rice in the water scarce regions of Iran. A qualitative study of rice producers of Firuzabad County, southwest Fars Province, Iran, revealed that personal (low level of education and technical skills), financial (poverty and livelihood vulnerability), institutional (inequitable access to government support services such as subsidized loans and extension systems) and cultural-psychological (lack of trust, lack of deferred gratification and limited good) barriers constrained sustainable use of scarce water resources. In this respect, it is recommended to consider various economic incentives for resource poor and water vulnerable farmers, promote irrigation efficiency, change cropping pattern in water scarce regions, increase farmers’ capacity to participate in social activities and consider new governance structures and planning process in order to achieve sustainable development and conserve natural resources.

**Keywords**: Climate change, Agriculture, Scarce water resources, sustainable management, Rice producers, Iran.