

## Groundwater Influences Wellbeing of Farmers from Semi-Arid Areas of India: Assessment of Subjective Wellbeing

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**Abstract :** The declining groundwater levels and quality are acknowledged to be affecting the well-being of farmers especially those located in the semi-arid regions where groundwater is the only source of water for domestic and agricultural use. Further, previous studies have identified the need to examine the quality of life of farmers beyond economic parameters and for a shift in setting rural development policy goals to the perspective of beneficiaries. To address these gaps, this paper attempts to ascertain the subjective wellbeing of farmers from two semi-arid regions of India. The study employs the integrated conceptual framework for the assessment of individual and regional subjective wellbeing developed by Larson in 2009 at Australia. The method integrates three domains i.e. society, natural environment and economic services consisting of 37 wellbeing factors. The original set of 27 revised wellbeing factors identified by John Ward is further revised in current study to make it more region specific. Generally, researchers in past studies select factors of wellbeing based on literature and assign the weights arbitrary. In contrast, the present methodology employs a unique approach by asking respondents to identify the factors most important to their wellbeing and assign weights of importance based on their responses. This method minimises the selection bias and assesses the wellbeing from farmers' perspectives. The primary objectives of this study are to identify key wellbeing attributes and to assess the influence of groundwater on subjective wellbeing of farmers. Findings from 507 farmers from 11 villages of two watershed areas of Rajasthan and Gujarat, India chosen randomly and were surveyed using a structured face-to-face questionnaire are presented in this paper. The results indicate that significant differences exist in the ranking of wellbeing factors at individual, village and regional levels. The top five most important factors in the study areas include electricity, irrigation infrastructure, housing, land ownership, and income. However, respondents are also most dissatisfied with these factors and correspondingly perceive a high influence of groundwater on them. The results thus indicate that intervention related to improvement of groundwater availability and quality will greatly improve the satisfaction level of well-being factors identified by the farmers.

**Keywords :** groundwater, farmers, semi-arid regions, subjective wellbeing

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