

Residential Water Management and Rainwater Harvesting: A Case of North Gujarat

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Water based activities are under threat and continue to shrink due to escalating water shortage in North Gujarat. Village residents have to struggle to meet their basic residential water needs. Due to growing water scarcity, residential water management is increasingly becoming chaotic, often leading to social conflicts. This paper is an attempt to seek a practical solution to residential water shortage. Arguing that the needs of resource poor people are often overlooked in conventional approaches to improving water supply and management, this paper tries to identify a technology that is both acceptable and affordable to predominantly poor residents of these areas.

Using the primary data collected from six villages in 2003, the study quantifies the residential water needs and tests whether rooftop rainwater harvesting (RWH) could be an answer based on technical, economic and social analysis. Analysis of gender dynamics has been done in the study, since provision and management of residential water is a predominantly female domain in the study area.

The findings show that the respondents' access to potable water is severely limited and women are physically and mentally stressed to ensure that their household gets its fair share of water to survive. They are somehow coping by drastically reducing water based residential activities. Examining potential demand and supply scenario, quality standards, ability and willingness to pay, the analysis confirms that a RWH system can be a less costly and reliable means for residential water security. Both men and women's roles in planning, operation and maintenance has been emphasized alongside appropriate institutional and policy environment as a prerequisite for sustainability of the RWH system.

Keywords: Women, Men, Rooftop Rainwater Harvesting, Residential Water, North Gujarat