

Research Paper :

## Availability and management of water at household level in Jaipur city

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### ABSTRACT

The study presents the availability and management of water at household level in the walled city (old city) of Jaipur, Rajasthan. The study also throws light on the effect of selected variables on the consumption of water. The study reveals that the majority of households were dependent on Municipal tap connections and water was available for 2-3 hours once in a day in a very erratic manner. The mean water availability was 350 litres per household per day with standard deviation of 18.97. The households with private bore wells had more availability of water. The consumption of water was found to be 66 litres per person per day. Besides, 60 per cent of households were not adopting any means of water conservation. The family income and type of family were found to be affecting the household water consumption. The study emphasizes the dire need to take corrective action at various levels.

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Water, a gift of nature, is a prime necessity for human survival and sustenance of civilization. Water is required for almost all human activities. At household, it is consumed for numerous purposes such as drinking, cooking and for sanitation. Water, the need of life, is posing a serious challenge on account of an increasing demand due to population rise, rapid urbanization, economic development and change in life style. Estimates reveal that by 2020, India's demand will exceed all sources of water supply (ADB Review, 2006-2007). Water is the most vital natural resource and is becoming scarce. The situation is very grim and alarming and calls for collective and collaborative efforts to conserve it for human survival. The scarcity of water leads to social conflicts and tension and also hampers development.

The state of Rajasthan is the largest and driest state in the country covering an area of 34.27 million hectares, which is more than 10 per cent of the total geographical area of the country and having 5.4 per cent of the nation's population. However, it has less than 2 per cent of the water resources of the country. The livestock population is as high as 18.7 per cent of the country's livestock population. The position is depicted in the following Table 1.

The study attempted to find out the availability and management of water and also to understand the differential water consumption at the household level. The hypothesis of the study was that there will be no difference in the consumption of water in the households in respect of family income, family type, education of women and the number of taps in the house.

**Table 1 : Geographical area of Rajasthan**

State parameter	Per cent share in nation's parameter
Area	10.40
Population	5.40
Livestock	18.70
Cultivable area	13.88
Surface water	1.67
Ground water	1.70

(Source: Report of Expert Committee on Integrated Development of Water Resources, June, 2005)

### Area of the study :

Jaipur, the capital of Rajasthan and a major tourist destination was selected for the study. It is one of the fastest growing cities of India. In the city, while the demand for water is increasing due to multifarious reasons, its availability is decreasing. Ramgarh Lake, situated 34 kms from the city, which was once the major source of surface water, has dried up now. Due to the unavailability of surface water, Jaipur has to depend on ground water resulting in lower water table. In fact, the city is facing an acute shortage of water.

### METHODOLOGY

#### Population and sampling :

The city is divided into two parts, namely walled city and outer city. The walled city, which is the old city, was selected as the study area due to the following reasons:

- Acute water scarcity,
- Dense population,
- Low water table, *i.e.* 20-40 metres,