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Study of water and water-related energy use in the context of households in western and northern parts of India

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Abstract

Climate of India is much dependent on its geography and location. Himalayan mountains in the north act as a major influence of climate in India. Moving towards the equator, the water abundant Gangetic plains of the north border a mercury soaring and rainfall erratic desert, with water stress on the west. With this climate distinction in mind, a study was conducted, in the northern and western parts of India. Nearly 200 people and 53 families were surveyed independently. This socio-economic behavioural survey enquires about the daily household water and energy needs of the people during the summer season. The survey clearly reveals that the water scarcity is not because there is not enough water to meet the demand, but because of the choices people make and climate. People may not realize that in completing basic tasks, such as washing hands or brushing teeth, they could be using more water and water-related energy than is needed. Results show that nearly 30% of the people use hot water for bathing even in the summer months. Also, nearly 25% people accepted that on an average, they spend more than 12 minutes in the shower. Peak consumption range of refrigerated drinking water is reported to be 2-4 litres at Mandinear to the Himalayas in summer while a consumption of 9-10 litres is reported from Jodhpur near the Thar desert. There is rampant consumption of bottled water at Jodhpur while it is negligent at Mandi. Approximately 60% of the surveyed households used liquefied petroleum gas as cooking fuel while about 5-10% still uses fire wood to cook. Approximately 40% people do not even think about storing rainwater for household use, in spite of facing regular water shortage during the summer months. People are ignorant of the water policies by the government and personal interaction with them revealed that most of them were not familiar with common terms such as flat tariff for water. Through a detailed analysis of the results of this survey, it can be concluded that some specific measures must be taken to incorporate sustainability into daily practice. The implications of this study helps in becoming aware of how human actions affect the management of water and energy at households.