

## **Concerted Strategies for Sustainable Water Resource Management in Semi-Arid Rajasthan State of India**

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**Abstract :** Rapid urbanization growth and multi-faceted regional level industrialization is posing serious threat to natural groundwater resource in State of Rajasthan which constitute major semi-arid part of India. The groundwater resources of the State are limited and cannot withstand the present rate of exploitation for quite a long time. Recharging of groundwater particularly in the western part, where annual precipitation does not exceed a few centimeters, is extremely slow and cannot replenish the exploited quantum. Hence, groundwater in most of the parts of this region has become an exhausting resource. In major parts water table is lowering down rapidly and continuously. The human beings of this semi-arid region are used to suffering from extreme climatic conditions of arid to semi-arid nature and acute shortage of water. The quality of groundwater too in many areas of this region is not up to the standards prescribed by the health organizations like WHO and BIS. This semi-arid region is one of the highly fluoride contaminated area of India as well as have excess, nitrates, sulphates, chlorides and total dissolved solids at various locations. Therefore, concerted efforts are needed towards sustainable development of groundwater in this State of India.

**Keywords :** Rajasthan, water, exploitation, sustainable, development and resource

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