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Challenges in Sustainable Development of Groundwater Resources in Maharashtra: An Integrated Approach

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Abstract

The drought is a very common phenomenon in India due to vagaries of monsoon. Major part of the country experiences severe drought in the event of failure of monsoon, the State of Maharashtra is one of them. The administrators and geoscientists are putting their efforts to mitigate the drought situation through identification of suitable sites for construction of conservation measures. However, it is evident that their approach is local or area specific, ignoring the regional set-up and lacks in holistic approach. Therefore there is a need to adopt holistic approach while implementation of water conservation programmes. In view of this, the groundwater situation of Maharashtra State has been analysed to understand the causes of scarcity, and based on this, an attempt is made to evolve suitable methodology for preparation of action plan based on available spatial database on groundwater resources. This approach helps in adoption of ridge to valley development. The State has a vast spatial database on resources in terms of geomorphology, land use/ land cover, soil, slope, lithology, structures, *etc*. which can be integrated in GIS environment to achieve the objective of sustainable development of groundwater resource.

Keywords: Drought, Water conservation, Methodology, Spatial database, GIS environment, Maharashtra State.