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**Assessment of impact of watershed activities on ground water quality in arid region (KR22, KR25, KR 34 and BM 114) of Maharashtra, India.**

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**Abstract-**

Several physical and chemical causes are active in changing the composition of the groundwater percolating through the soil and rocks. The watershed development is proven technology for harvesting good quality water. Thus, in this investigation we analyzed the impact of watershed interventions, 48 water samples each has been studied for pre monsoon and post monsoon condition. The statistical summary of 19 hydro-geochemistry parameters has been presented in this research investigation. This research deals with the study of impact of pre-monsoon and post-monsoon season on the various parameters of groundwater. Also an attempt is made to study the type of changes in the groundwater parameters during pre and post monsoon season. The research shows that the parameter which has maximum variation for its content in groundwater is potassium (K). Using data mining and statistical techniques, some interesting results about the changes in the groundwater parameters are studied.

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**1. Introduction**

Lotic ecosystems helpful in maintaining the natural cycles in the environment. Lentic ecosystems are standing ecosystems works contrary to lotic ecosystems. Especially dams are better example of lentic ecosystem. Dams and human development are two sides of one coin but converting lotic ecosystems in lentic ecosystems largely threats the human life in entire world. Salinity, alkalinity, decreasing water quality, significant health issues and agriculture allied problems such as loss of soil fertility, significant decline in crop yields are the principal problems in many countries. Watershed development for harvesting good quality water is always found to be effective tool in some recent decades. Watershed development activities are small lotic ecosystems have very negligible impact over native environment.

In some recent decades watershed development and management have got immense importance in drought prone areas of India. Salinity and alkalinity hazards are associated in both excessive irrigation areas and drought prone areas of India. Hence harvesting good quality water at its own source is one of best intervention to overcome the challenge.