SUITABILITY OF GROUNDWATER FOR IRRIGATION PURPOSES AT MEWAT, HARYANA (INDIA)
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Groundwater quality plays an important role in influencing the agricultural sustainability particularly in arid and semi-arid of the country.

Study area- Mewat region, Haryana, India

Objectives
➢ To analyze the groundwater suitability for irrigation purposes
➢ To give an idea about working experimental model i.e. pressurized recharge well for tackling the groundwater salinity at Mewat region

Methodology
➢ To study the impact of monsoon on groundwater quality, twenty three groundwater samples were collected

➢ The quality of groundwater samples including EC, pH, alkalinity sodium (Na⁺), potassium (K⁺), sulphate (SO₄²⁻), fluoride (F⁻), Nitrate (NO₃⁻), calcium (Ca²⁺), magnesium (Mg²⁺) were analyzed by standard methods.

Results

1. Salinity hazard (a) Pre-monsoon, (b) Monsoon

2. Sodium Adsorption Ratio (SAR) (a) Pre-monsoon, (b) Monsoon

Pressurized recharge well

Conclusion
➢ The pre-monsoon and monsoon data were compared to understand the effect of monsoon on groundwater quality. There was almost no change in groundwater quality with respect to RSC.
➢ The model has high potential in those regions with saline ground water and in coastal areas where sea water ingress poses a major challenge.