

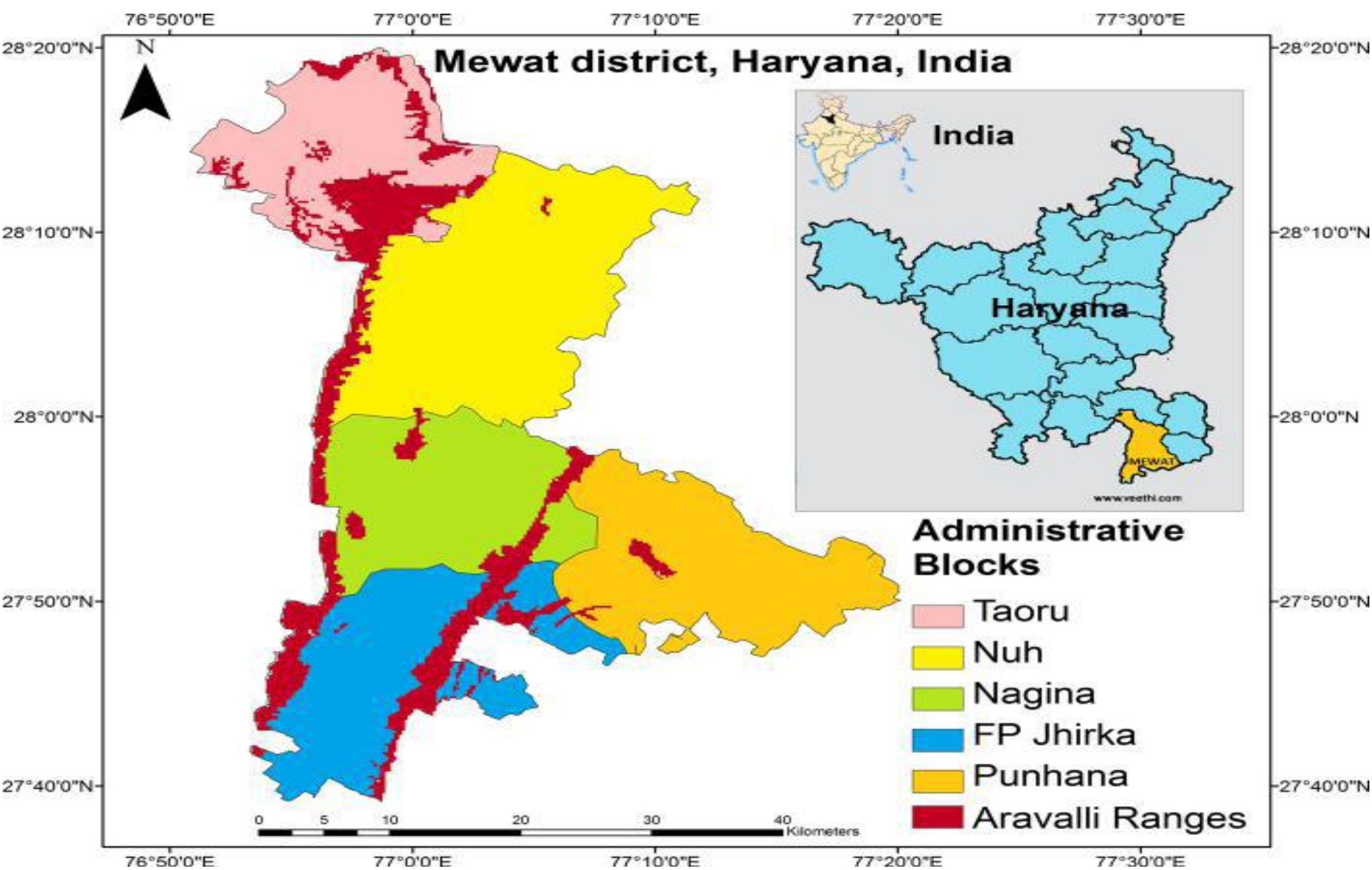
SUITABILITY OF GROUNDWATER FOR IRRIGATION PURPOSES AT MEWAT, HARYANA (INDIA)

Mamta Bisht, Ph.D. Scholar, IARI, Pusa, New Delhi (India)

Introduction

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



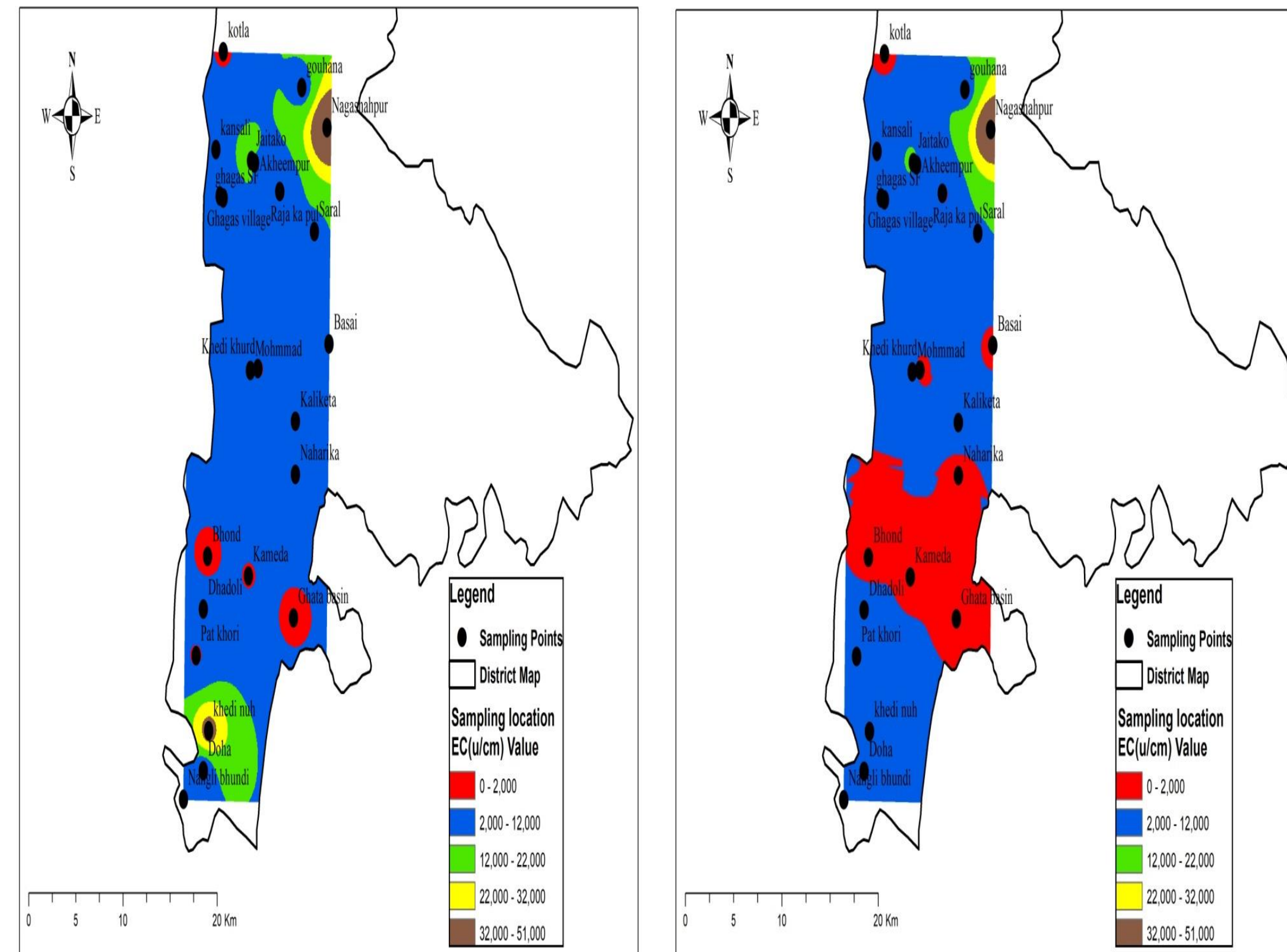
Objective

- 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

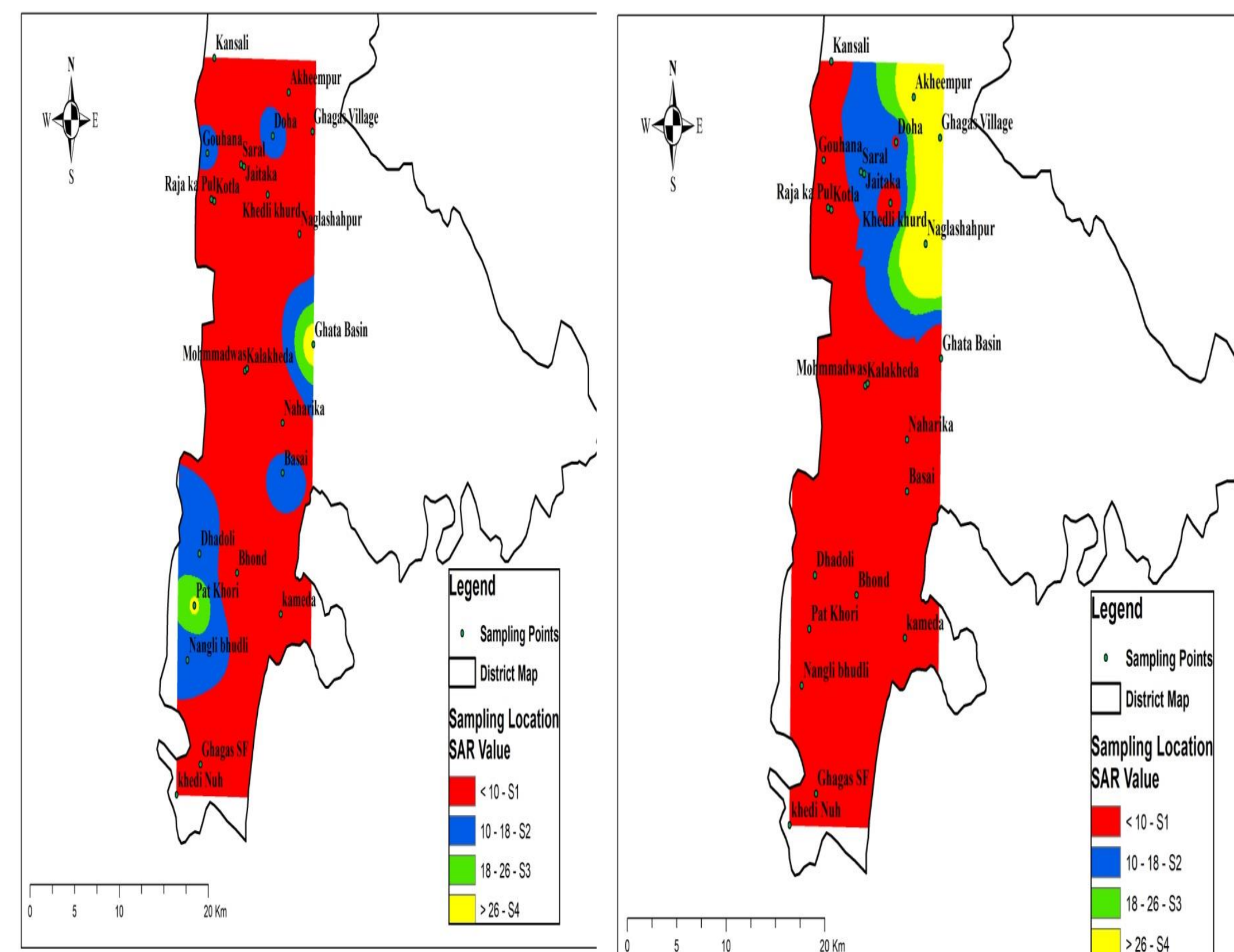
Methodology

- 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 (SO_4^{2-}), fluoride (F^-), Nitrate (NO_3^-), calcium (Ca^{2+}), magnesium (Mg^{2+}) were analyzed by standard methods.

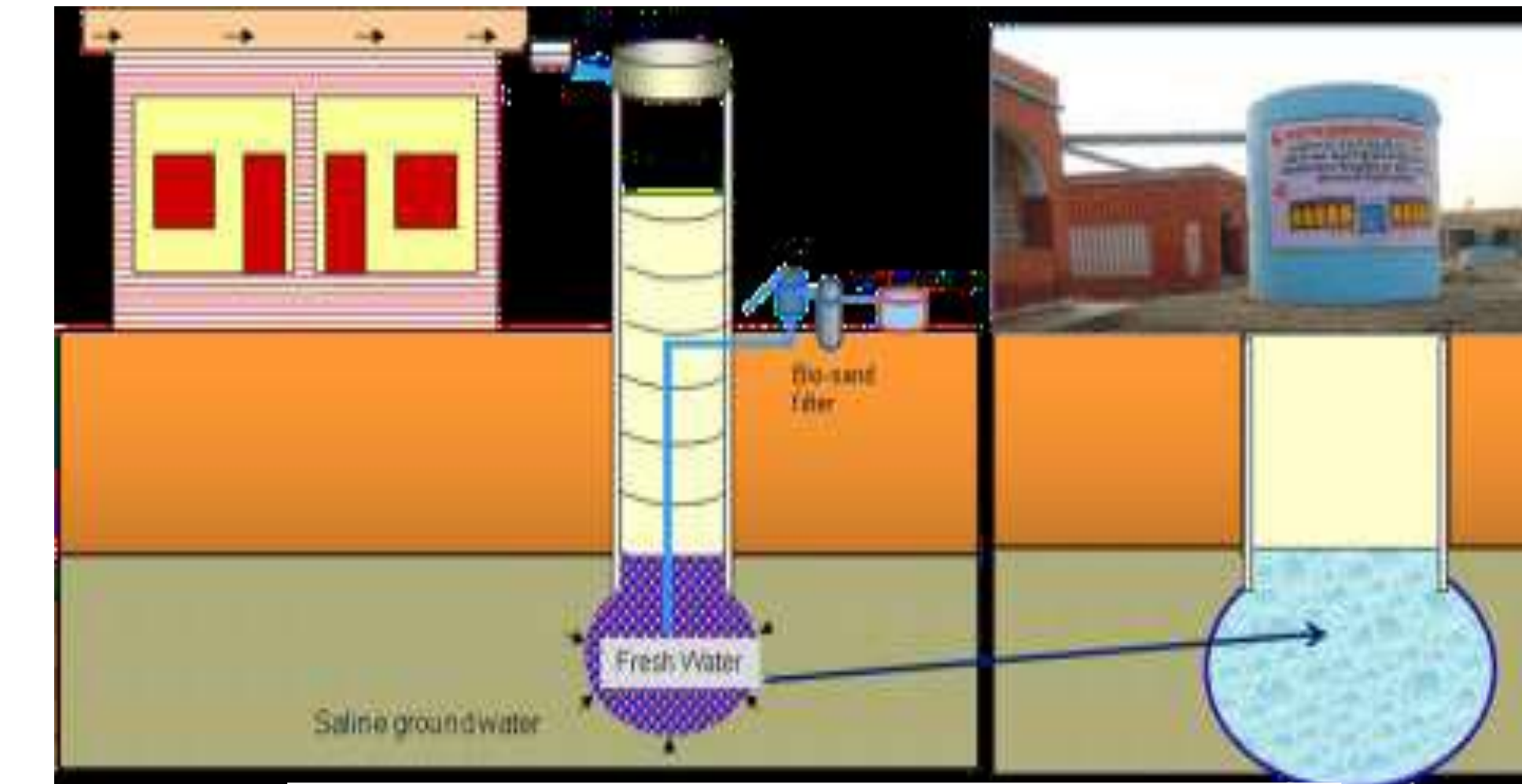
Results



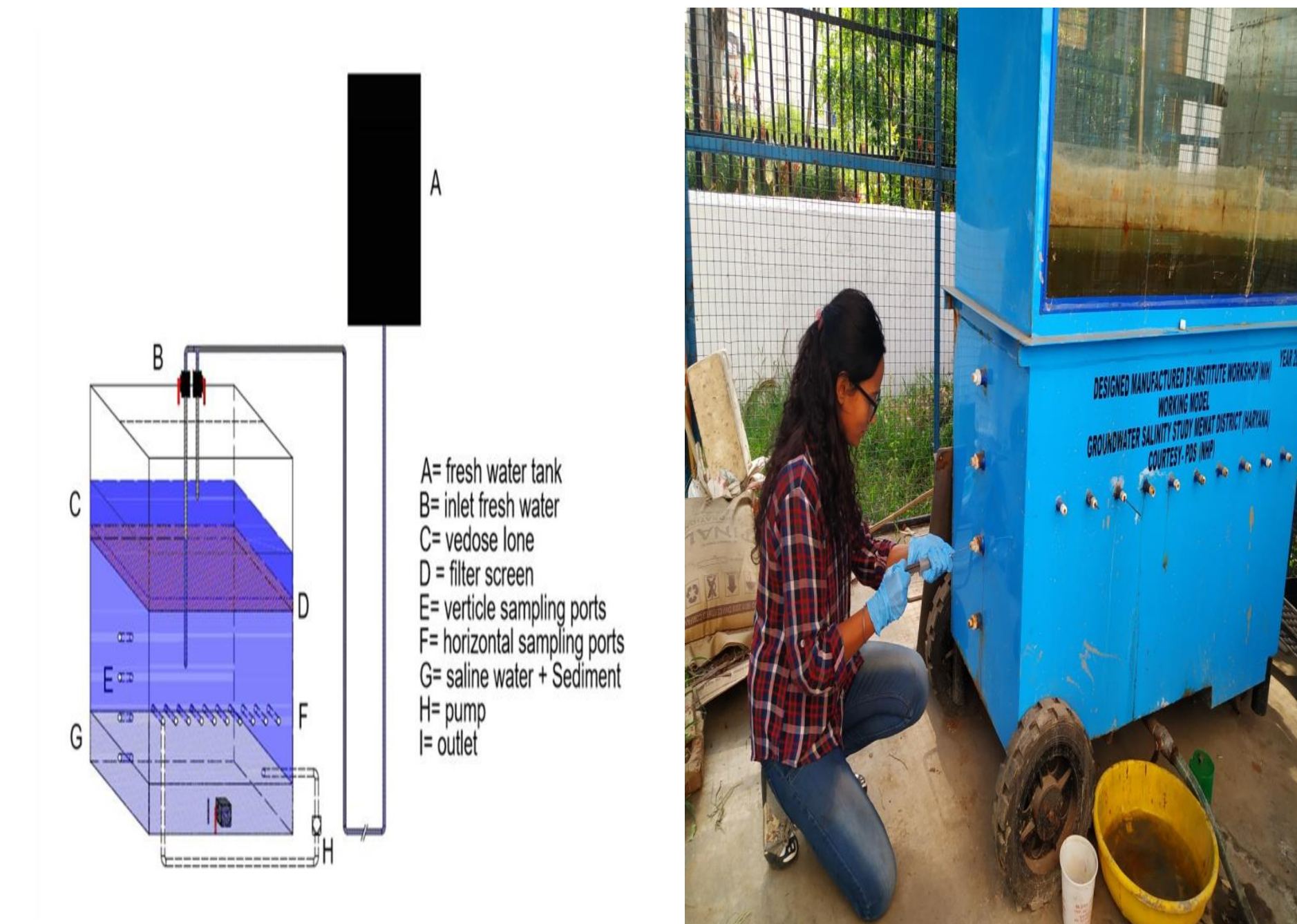
1. Salinity hazard (a) Pre-monsoon, (b) Monsoon



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.