

Hydro-geochemical and isotopic ($\delta^{18}\text{O}$ and $\delta^2\text{H}$) evidences on the origin of groundwater Arsenic and Fluoride contamination along floodplain areas of Ravi River, Pakistan.

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Present study was conducted with the aim to demonstrate the impact of recharge on groundwater arsenic (As) and fluoride (F^-) concentrations. The concentration of As in groundwater ranged from 2 $\mu\text{g/L}$ - 547.76 $\mu\text{g/L}$ with 59% samples exceeding WHO permissible limit (10 $\mu\text{g/L}$) Whereas more than 70% of the samples had F^- concentrations above the WHO drinking water guidelines having range between 0.54 mg/l to 17.5 mg/l. The results of hydro-geochemical data and $\delta^{18}\text{O}$ and $\delta^2\text{H}$ isotopic analysis suggested that water-rock interactions and evapotranspiration are the two major prevailing processes controlling As and F^- mobilization into groundwater.