

## **Impact of sewage and industrial effluents on water quality in Faisalabad, Pakistan**

### **ABSTRACT**

Background: Urban sector is witnessing significant increase in municipal wastewater due to rapid growth in population and industrialization. Much of the city's wastewater is being disposed into the Ravi and the Chenab rivers without proper treatment. Objective: The present study evaluated the impacts of municipal wastewater on both surface and groundwater resources. Results: The physicochemical parameters for 75 to 80% of the industrial wastewater were found beyond the permissible limits. Most of the city's water supply and the bottled water samples were found to be within the drinking water quality standards. Most of the groundwater samples (used for drinking and domestic purposes) were either unfit for drinking purpose or approached the limits. Conclusion: The groundwater samples near the drains were the most polluted and were unacceptable for drinking and the same may be used for irrigation only after treatment. However, the analyzed heavy metals (Cu, Fe, Mn, Zn, Cd, Cr, Pb and Ni) were within the permissible limits for industrial wastewater, drinking water and wastewater used for irrigation.

**Keyword:** Sewage; Industrial effluents; Groundwater quality; Irrigation wastewater

