

ABSTRACT

Five heavy/ trace metals were analyzed in sediment, water and fish from Baltoki 1-headworks, Qadirabad Barrage, Rasul Barrage and Sulemanki Headworks in order to determine seasonal variations in these metal concentrations. Sediment, water and fish (*Labeo rohita*, *Cirrhina mrigala*, *Cat/a cat/a*) samples were collected during monsoon and winter seasons and analyzed by atomic absorption spectrophotometer. Sediment, water and fish samples from Balloki Headworks were found to be more polluted as compared to Rasul Barrage, Qadirabad Barrage and Sulemanki Headworks. The concentrations of Fe, Zn, Cu, Cr and Ni in fish samples of different barrages headworks were 52.9 ± 12.33 , 40.24 ± 10.54 , 4.4 ± 2.27 , 1.39 ± 0.56 and 0.76 ± 0.43 ($\mu\text{g g}^{-1}$) in water 1.175 ± 0.25 , 0.21 ± 0.12 , 0.16 ± 0.08 , 0.11 ± 0.06 and 0.032 ± 0.03 ($\mu\text{g L}^{-1}$), 140.48 ± 9.26 , 39.77 ± 7.87 , 60.16 ± 11.57 , 23.1 ± 5.42 ($\mu\text{g g}^{-1}$) respectively.