ABSTRACT

Hudiara Drain is an international drain which flows down from India and enters Pakistan after flowing 40 km and joins river Ravi after flowing 55 km near Lahore.

Samples were collected for a period of four months (November 2006 to February 2007) on monthly basis from five different sites located along Hudiara Drain. The samples were acid digested and analyzed for heavy metals concentrations (Cu, Zn, Ni, Cd) on Atomic Absorption Spectrophotometer (Perkinson Elmer Analyst 100).

Cu concentration n milk during study period vat-led from O5 to 1.1 mg/L in milk, ranged from 1.3 to 1,9 mg/kg in meat and 0.35 to 0.7 mg/L in blood.

Zn concentration ranged form 1.9 to 4.2 mg/L in milk, 15 to 36 mg/kg in meat and 0.8 to 1.6 mg/L in blood.

Ni concentration ranged from L4 to 2.7 mg/L in milk samples, from 4 to 11.00 mg/kg in meat samples and from 0.7 to 2.4 mg/L in blood sample during the study period.

Cd concentration was found to be in range from 0.13 to 0.25 mg/L, 0.13 to 2.3 mg/kg and 0.Ito 0.7 mg/L in milk, meat and blood respectively of cattle in the study area during this study period.

Significant increase in concentrations of metals in cattle's milk meat and blood was observed along the stretch of Hudiara Drain, from the emergence point towards confluence point.

This situation poses a threat to the entire ecosystem including human population which can receive these pollutants directly (e.g., drinking water) or indirectly (e.g., in food chain through crops and cattle).