

ppm) was found in Satkhira prawn's skin followed by Bagerhat prawn's flesh (6.59 ppm). In case of prawn sample, the Metal Pollution Index (MPI) followed a sequence like  $OMPF < SPF < SPS < OMPS < BPF < BPS$ . Satkhira prawns flesh has the lowest value of Daily Intake of Metals (DIM) for Pb and Cd. The Health Risk Index (HRI) value of Co and Hg was found within the safe limit for human health given by USEPA, 2002. For others elements HRI value exceeded the value 1 and suggested as harmful for human health. HRI value of Cd was calculated maximum for almost all the sample analysed with an exception of SPF and OPMF prawn samples. This study confirms the presence of heavy metals in the prawn feeds and prawnsamples (*M. rosenbergii*) and assesses the possible health risk factors for human health.

### PP-9: Physico-Chemical Analysis of Ground Water and Soil near Rooppur Nuclear Power Plant

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Different hydrological and environmental aspects have been considered in this study for current status assessment of Rooppur Nuclear Power Plant (RNPP). Physico-chemical characteristics of water samples from five different locations and nineteen soil samples were determined. The samples were analyzed by standard methods and various instruments. The range of pH was 7.05-8.29, Conductivity was 238-946  $\mu\text{s}/\text{cm}$ , Dissolved Oxygen was 1.31-7.43 mg/L, biochemical-oxygen demand (BOD) was 0-48 mg/L, Chemical Oxygen Demand (COD) was 80.76- 115.38mg/L. Total hardness of water was measured by titrimetry methods and the result obtained 114 mg/L to 553.33 mg/L as  $\text{CaCO}_3$ . Chloride, Sulphate, Phosphate, Nitrate and Nitrite were ranged from 8.37-33.87 mg/L, 0.356-13.345 mg/L, 42.50-103.08 mg/L, 1.05-1.99 mg/L and 13.14-59.09 mg/L respectively. The pH of soil samples were ranged from 7.5-8.56. Mainly six elements were detected in the soil samples and the highest m/m% of Si, Fe, Al, Ca, K, Ti was 68.27, 16.53, 12.32, 10.85, 8.19 and 1.47 respectively. The present results will act as baseline for the future studies of RNPP.