**Abstract**

The present investigation entitled "*Studies on the Status and Future Management Strategies of Fish Farming in the Rainfed Districts of Purulia and Bankura*" was conducted for both the district to know the present fish farming status, fisheries management strategies, socio economic condition of fish farmers, to evaluate the physico – chemical and biological condition of fish culture pond, to assess the present status of fisheries management of the reservoirs of these two districts and to evaluate the physico-chemical and biological conditions of the selective reservoirs. Lastly to identify the limiting factors of production, give area specific management packages and recommend specific measures to augment production from the pond as well as reservoirs also. Primary data was collected through a structured survey schedule and secondary data was collected from books, articles, journals, published reports, Census reports, and various Government Departments also. The water, soil, plankton sample, macrophyte and fish faunal resource were collected normally during early morning hours from each selected stations of both the district during first week of every months for consecutive 24 months (March, 2014 to February, 2016 ). The study reveals that present fish farming condition, fisheries management practices and socio economic condition of fish farmer is better in case Bankura district than Purulia district. The water quality parameter temperature, pH, alkalinity and hardness value was higher in Pre Monsoon month for both the district. Dissolved oxygen content was maximum in Monsoon month and minimum in Pre Monsoon season. The nutrient parameter like nitrite – nitrogen, nitrate nitrogen, available phosphate content was higher in Pre Monsoon season for both the district. In case of soil quality parameter the soil pH was high in winter season for both the district. Organic carbon value of soil was higher in Pre monsoon month and lower in Post monsoon season. Regarding plankton parameter the phytoplankton classified into 4 major groups like Cyanophyceae, Chlorophyceae, Bacillariophyceae and Euglenophyceae.  Total 23 genera of phytoplankton found in studied area.

The zooplankton study in the study areas consist of five major groups like Rotifera, Cladocera, Copepoda, Protozoa and Ostracoda. Total 26 genera of zooplankton found in studied area. The reservoir water quality parameters like temperature, pH, alkalinity, nitrite – nitrogen, nitrate - nitrogen and ortho - phosphate value were higher in Pre Monsoon season and lower during winter season. Hardness value was higher during Monsoon season and lowest value observed winter season. The population of phytoplankton in reservoirs of Purulia and Bankura district composed of four major groups (Cyanophyceae, Chlorophyceae, Bacillariophyceae and Euglenophyceae) and zooplankton population consists of five major groups (Rotifera, Cladocera, Copepoda, Protozoa and Ostracoda). The reservoir of Purulia district endowed with rich fish faunal diversity. Total thirty seven (37 no's) no's of fish species found in the reservoir of Purulia district. The Kangsabati reservoir of Bankura district showed rich ichthyofaunal diversity. Total 38 species belonging to 7 orders, 15 families and 26 genera found in the reservoir water body. The macrophyte community of reservoir water body are classified into three main groups like submerged, emergent macrophyte, and rooted floating macrophyte.