**Recommendations**

In recent years water quality is bothering many researchers, concerned authorities and NGOs all which are monitoring quality of fresh water resource across the globe as water sources are facing unprecedented levels of threat. It is of prime importance and concern to protect the natural fresh water bodies. In India, similar situations are observed due to urbanizations and over population growth. It is of prime concern to monitor the quality of fresh water sources as it is the main source of drinking water in our country. Fresh water resources should be managed on the basis of long-term water management plans, so as to follow an integrated approach regarding all relevant aspects of water quantity, abstraction and discharge, supply and protection. As river Cauvery, river Kapila are the major rivers in Karnataka which provide the need of drinking water and also water for irrigation to majority of the population.

- As river Cauvery is polluted mainly by anthropogenic activities, as it flows through numerous pilgrimage centers, attempts should be made to minimize anthropogenic activities along the pilgrimage centers and give proper guidance to pilgrims for maintaining the water quality of the river.

- As river Kapila is much more polluted than river Cauvery due to accumulation of pollutants through industrial discharge and agricultural runoff, all along with its flow specific actions should be taken for reducing the pollutants present in the effluents to the minimum level and use of pesticides and fertilizers, by implementing organic farming which can improve the water quality naturally.

- If all the above measures are taken up properly, the biodiversity of zooplankton would be maintained and a balanced relationship between humans and aquatic ecosystem can be restored.

Water quality index clearly revealed that Kapila river was more polluted than Cauvery river and due to the joining of Kapila river the pollution load of Cauvery river was increased. The current research throw a light on water quality and population dynamics of Zooplankton groups in particular, we aimed to raise awareness about these delicate aquatic ecosystems as well as on fresh water species especially Zooplankton which are the bio-indicators of fresh water quality. Information from the current investigation serves as a guide for concerned authorities to apply suitable pollution control measures in these water flowing areas.