

## CHARACTERISTICS OF A FRESH WATER RECIRCULATING SYSTEM FOR PILOT CAGE CULTURE STUDIES

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In order to carry out small scale pilot studies on the culture of fish in cages, a recirculating system has been constructed and tested out. The system includes, a ground tank, overhead tanks, filter tanks and a cascade. The total volume of water in the system is about 13,500 litres. Approximately 1,000 *T. Nilotica* were grown in the system, partly in cages and partly free swimming in the ground tank.

Physical and biological characteristics of the system were monitored. Temperature ranged between 27.5°C and 30.5°C. Oxygen levels ranged from about 3-5.75 mg/l. At the start of the study filter tanks were not in operation and the pH and nutrient levels showed wide fluctuation. With the filter tanks operational pH stabilised around 7 and nutrient levels remained at acceptable levels. Twelve species of phytoplankton were identified with *Ulothrix* and *Chlorella* being dominant. The zooplankton included rotifers and cladocerans.

The system has been found to be very suitable for pilot studies on cage culture.