

Collaboration with communities to maintain shared aquatic ecosystems

A. Community-Based Conservation and Co-Management

In 2024, Centurion University, Paralakhemundi, Odisha conducted the water quality surveys (conducted quarterly) and biodiversity assessments. Over 70 students and 120 local fishers co-monitored pH, turbidity, and dissolved oxygen levels in shared ponds. The average measured parameters include pH (6.8–8.3 range), dissolved oxygen (5.6–7.8 mg/L), BOD (1.2–2.4 mg/L), and nitrate concentration (<0.4 mg/L). Biological assessments undertaken by B.F.Sc. 4th year students on 1 week of March 2024 and documented an average plankton diversity index (Shannon-Weiner $H' = 2.7$), indicating moderate ecological stability. The initiative engaged 22 B.F.Sc. 4th year students through field visits, laboratory analysis, and real-time monitoring.



Figure 1: Testing of water quality in laboratories

B. Livelihood and Training-Oriented Collaborations

In 2024, Centurion University forged long-term community partnerships to restore and co-manage shared aquatic ecosystems in Gajapati Odisha. The school has conducted two training programs for fish farmers and members of the fishermen cooperative society at Centurion University- PKD Campus in the month of October 2024. On the 12th October 2024, a training programme on integrated farming and watershed-based livelihood models, linking income generation with aquatic conservation, was conducted for 15 fish farmers. On 18th October 2024, a training programme on integrated farming and watershed-based livelihood models, linking income generation with aquatic conservation, was conducted for 50 members of the fishermen cooperative society. Such collaborative programs with fish farmers and fishermen cooperatives in Gajapati district have enhanced water governance and biodiversity conservation.



Figure 2: Training programme on eco-friendly aquaculture, water harvesting, and waste management.



Figure 3: Training programme on integrated farming and watershed-based livelihood models, linking income generation with aquatic conservation.