

Programs on freshwater ecosystems and water conservation for communities.

Education and Awareness (2024)

Centurion University integrates Life Below Water principles across its curriculum through experiential programs, field laboratories, and community engagement.

Key Initiatives:

- **Student-Led Water Ecosystem Projects:** 70+ students participated in Fisheries and Ecosystems Livelihood Program (FELP) and research projects on water quality monitoring and fishery innovation.
- **School of Fisheries:** Conducted awareness workshops on biodiversity, aquatic ecosystem management, and pollution control.
- **Plastic-Free Campus Drive:** Engaged student and staff volunteers in awareness campaigns for ocean and freshwater health.

Impact:

- SDG 14 modules embedded in Environmental Studies and Sustainable Agriculture courses.
- Improved awareness of water ecosystem conservation among students and local communities.

a) Educational outreach on freshwater ecosystems:

Centurion University, Paralakhemundi campus, Odisha, offers educational outreach programmes on freshwater ecosystems and sustainable aquaculture. This is mostly done through its dedicated aquaponics unit, pearl implantation kit and tank, and rearing unit, which features six rectangular tanks (6m x 2m x 1.5m) and six small rectangular tanks. These tanks are used for the culture and rearing of food fish from spawn to advanced fingerlings. The university conducted a community-based training session on 24th February 2024 on fish culture, water management, irrigation practices, advanced culture techniques and pearl culture for local farmers.

Around 180 farmers, including 67 women Self Help Group (SHG) members and 15 students participated in this capacity-building training. The training focused on fingerling production, water conservation techniques, and sustainable freshwater resource use. The programme generated measurable outputs, including improved fingerling survival rates (25%), increased adoption of sustainable water practices, and local livelihood enhancement. Testimonials from participants revealed that the hands-on training in tank-based freshwater fish culture and pearl implantation not only enhanced their technical knowledge but also gave them confidence to

apply these practices in their own ponds. Three farmers reported improved fish survival rates (20-25%) and adoption of sustainable water-use methods as a supplementary livelihood opportunity. These outcomes demonstrate both skill development and measurable community impact.



Figure 1: Farmers' training program at Centurion University-ODSHA



Figure 2: Community Outreach Training on Freshwater Fish Rearing and Pearl Implantation

b) Educational Outreach and Capacity Building in Ornamental Fisheries



Figure 3: Empowering Communities through Training Manuals and Certification in Freshwater Fish Culture

In 2024, Centurion University, Paralakhemundi campus expanded its freshwater ecosystem outreach through ornamental fish training programmes. The university's ornamental fish unit houses species such as fighter fish, angel fish, polar blue parrot, gourami, and other cichlids, which serve as live learning resources.

3rd and 4th-year students successfully bred and reared ornamental fish, achieving a 70% survival rate for fighter fish and 60% for the cichlid family. Farmers and fisherfolk from nearby communities regularly visited the rearing units to gain knowledge in breeding, larval rearing, and water management practices, with students also transferring these skills to their families and local communities. Three students became entrepreneurs, engaging in shrimp farming, biofloc culture, and ornamental fish culture.

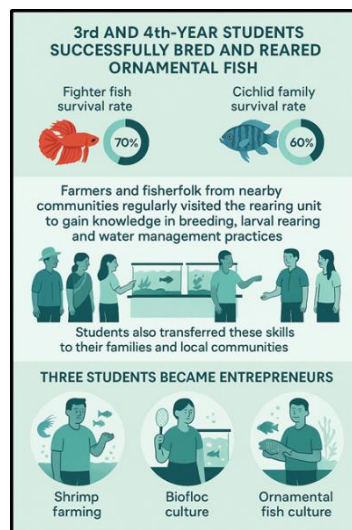


Figure 4: Ornamental Fish unit in school of fisheries



Figure 5: Community-oriented ornamental fish training at Centurion University

c) Community Outreach and Livelihood Training

Over 180 farmers and 67 SHG women trained through Krishi Mela and Agri-Clinic programs in 2024. Till date from the involvement of School of Fisheries, nearly 1000+ fishers and farmers trained and their income increased to 30% than their previous income, due to the capacity building programs.

