Goa University

School of Earth, Ocean and Atmospheric Sciences

Discipline of Marine Sciences

Report on visit to a home-based Tilapia (*Oreochromis mossambicus*) culture facility at Dona Paula, Goa

1. Title of the Event/Activity/program	Visit to a Tilapia (*Oreochromis mossambicus*) culture facility
2. Date and Time	23rd August 2024; 1000 -1115 h
3. Mode of conduct (Physical/Online)	Physical
4. School/ Directorate/ Section	School of Earth, Ocean and Atmospheric Sciences
5. Collaborating Agency/School/Directorate	-
6. Detail of the Resource Person (Brief biodata)	Mr. Kenneth D' Mello
7. Number of Faculty attended/participated	1
8. Number of Student attended / participated	8
9. No. of external students/faculty/other participants	-
10. The objectives of the Program/activity/event	To gain insights on method adopted for the culture of Tilapia
11. Description of the Program/activity/event	Refer Annexure I

12. Benefit/Key outcomes of the Program/activity/event	Refer Annexure II
13. Enclosures with report	• Geo-tagged photos • Attendance of students/faculty

Signature:

Name of coordinator: Dr. Sheryl O. Fernandes

Designation: Assistant Professor

Date: 27/08/2024

Signature

Dean/Director/Head 27/8/24.

Seal of the School/Directorate/University

Description of the activity

Students pursuing course MSC 631 Aquaculture at SEOAS visited the residence of Mr. Kenneth D' Mello who has initiated Tilapia farming. It involves culturing the fish in controlled environments like ponds, tanks, or cages. Tilapia's adaptability to tolerate various water conditions and their rapid growth makes it a suitable candidate for aquaculture. Mr. D' Mello informed that the key aspects of Tilapia farming include:

1. **Water quality:** Maintaining optimal water conditions viz., temperature, pH, and oxygen level are crucial for healthy Tilapia. They thrive in warm water, typically between 22 °C and 28 °C.

2. **Feeding:** Tilapia are omnivorous and can be fed a variety of diets, including commercial pellets and natural food sources like algae. Mr. D' Mello was feeding the Tilapia with formulated feed (pellets).

3. **Stocking density:** Stocking density was kept low to avoid disease and stunted growth.

4. **Disease management:** Regularly changing and continuous filteration of water should be done to prevent diseases in the fish. This also maintains good water quality which is essential for ensuring fish health.

5. **Harvesting:** Tilapia are harvested when they reach market size (~ 6 to 9 months). The timing of harvest can vary based on the farming conditions and market demands.

6. **Sustainability:** Tilapia farming is often considered environmentally sustainable because they are efficient in converting feed into body mass.
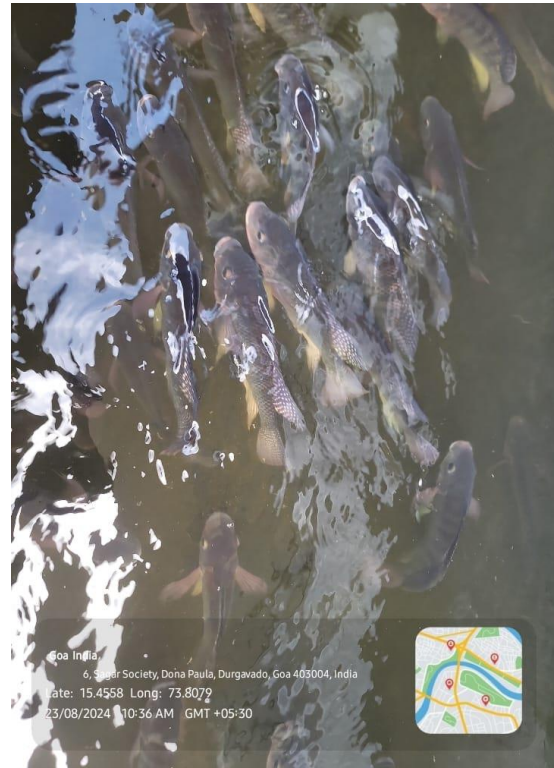
Overall, Tilapia farming is a versatile and efficient way to produce a popular and nutritious fish, suitable for various water environments and farming systems.

Annexure II

Key outcomes of the activity

The student learned the following:

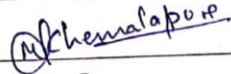- Tilapia farming can be carried out on a small-scale as they are sturdy and tolerate fluctuations in environmental parameters.

- Water quality management can be done using filters which have beads, pebbles and activated charcoal.

- The waste water can be used for watering plants.

- Hydroponics can also be carried out in conjunctions with Tilapia culture.

- Vermi-compost made using garden waste and cowdung can be used for producing earthworms which are fed to the Tilapia.

- For aeration, the water is released from a height so create bubbles and thereby oxygenate the water.

- For maintaining fish health, the tanks need to be cleaned atleast once a week.

Visit to a home-based Tilapia (*Oreochromis mossambicus*) culture facility at Dona Paula, Goa

23 August 2024

Attendance of students/faculty

Sr. no.	Name of Student/ Faculty	Sign
1	Becca Rodrigues	
2	Blanche Dsouza	
3	Ceana Fernandes	
4	Madhavanand K	
5	Pallavi Velip	
6	Shruti Verma	
7	Swed Gaunekar	
8	Dikanksha Kamble	
9	Sheryl O. Fernandes (faculty)	
10		