



Development of Aqua-Culture Education in Higher Educational Institutions in Kenya
AQUADEVBUS Project

REPORT
NOVEMBER 2024

**REPORT ON WORK PACKAGE 3: PEDAGOGICAL TEACHING ENHANCEMENT
AND METHODS**

Deliverable 3.3: Competitions will be organised locally and internationally in central places to enable learners to engage with each other around the world; Learning centres for experimentation are set up, learners are enabled to engage with or design their experiments; Case studies in selected setups will be used to learn complex issues by applying critical thinking and exploration of topics in aquaculture.

Deliverable 3.3.1: Number of competitions organised both locally and internationally

TASK 3.3.1: Competitions will be organised locally and internationally in central places to enable learners to engage with each other around the world

Research team from both Rongo University and Great Lakes University of Kisumu engaged with each other from the month of September to plan for and organize an event that would enable learners to come together to share knowledge on complex issues they had acquired during case studies that they carried out in different setups. During the month of November, the planning of the event was finalized and it was agreed that students hold this event at Great Lakes of Kisumu (GLUK) on the 28th of November 2024 as shown by correspondence in Plate 1. On the 28th of November 2024, 50 students from Rongo University (RU) travelled; a journey of three hours to engage with their colleagues at Great Lakes University of Kisumu. The event started at 10.am and ended at 3.00 pm.

Students from both Universities made presentations on the topics they had conducted case studies on, to share their knowledge and experiences on various aquaculture topics. The learners had conducted the case studies in their earlier assigned groups. Eight groups were able to share their findings. After each presentation by one of the group members, interactive sessions were held, participants were able to engage with each other on the topic under



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discussion. This engagement facilitated peer learning and cooperative learning, and was used as a contest to identify the best presentations. During the event four members of the AQUADEVBUS Team awarded marks on the presentations based on an agreed upon marks awarding guideline. At the end of the presentations, the presenting teams were ranked according to the scores they had obtained. The best three teams were awarded prizes for their excellent performances. The activities of the learners' engagement are shown in plates 3 to Plate 15 below.

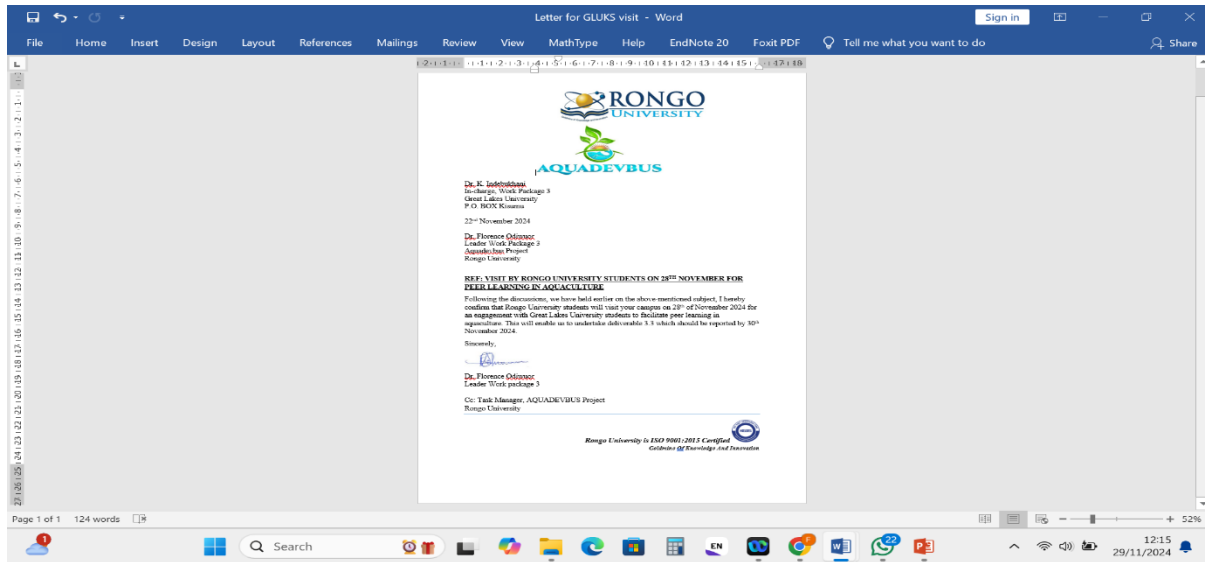


Plate 1: Correspondence from RU to GLUK during the planning for the Learners' engagement



Time	Activity	Facilitator
9:00 - 10:00am	Arrival, registration and prayers	Winnie Otieno
10:00. — 10:10am	Prayers and Introductions	Dr. Kennedy Inderbukhani
10:00-10:10am	Opening remarks DVC FAP DVC ASAR	Prof. Genevieve Mwayuli Prof. Charles Wafula
10:10am-10:20am	Official Opening (VC), Project Manager AQUADEVBUS PROJECT	Prof. Hazel Miseda Mombo
10:20 - 10:40am	Overview WP3	Dr. Florence Odiwuor
10:40am-12:40am	Presentations	Prof. Leo Ogallo
12:40- 12:50pm	Report on Presentation	Dr. Mercy Kamau
12:50. 1:00pm	Closing prayer	Nicholas Kiprono
1:00 – 1:20	Health break and photo session	
1:30pm	Departure	All
	Visit to AQUARECH	All

Plate 3: Program of the Student's Engagement Event at GLUKS



Plate 4: Rongo University students arriving at GLUK for the Students’ engagement event



Plate 5: Learners seated at the venue for the Students’ engagement



Plate 6: AQUADEVBUS Project Team members from RU and GLUK ready to listen to presenters



Plate 7: Prof. Genevive Mwayuli, Deputy Vice Chancellor of GLUK declaring the event officially open, leader of work package 3, giving a highlight of the event



Plate 8: Programmer of the meeting setting on the presentations



Plate 9: Teams presenting their case study findings



Plate 10: Teams presenting their case study findings



Plate 11: Interactive sessions ongoing



Plate 12: Winning Team receiving their prize

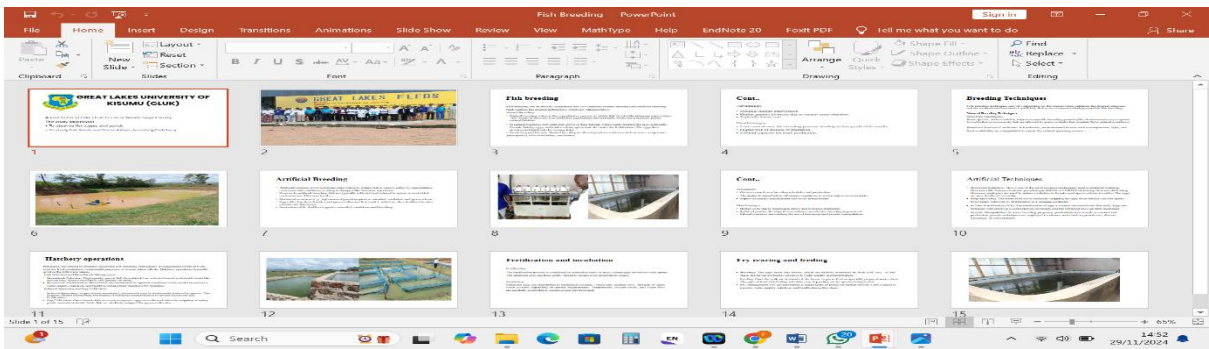
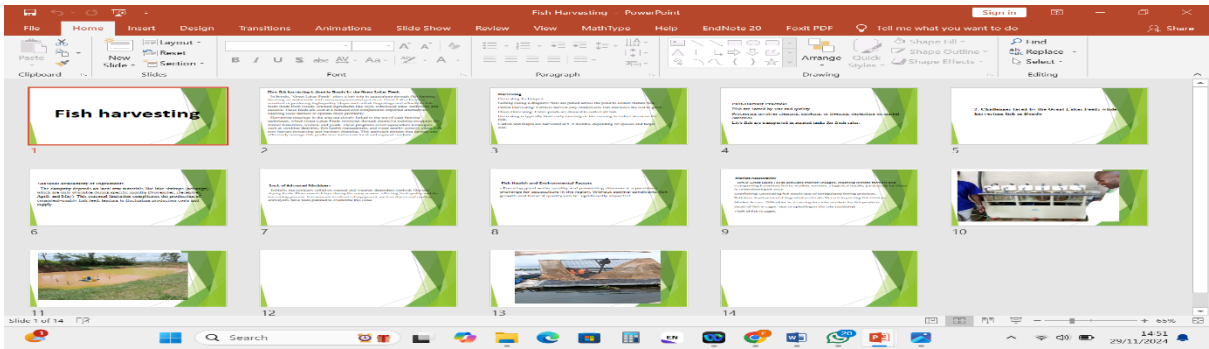


Plate 13: First runners up team receiving their prize



Plate 14: Second runners up Team receiving their prize

PowerPoint Presentations



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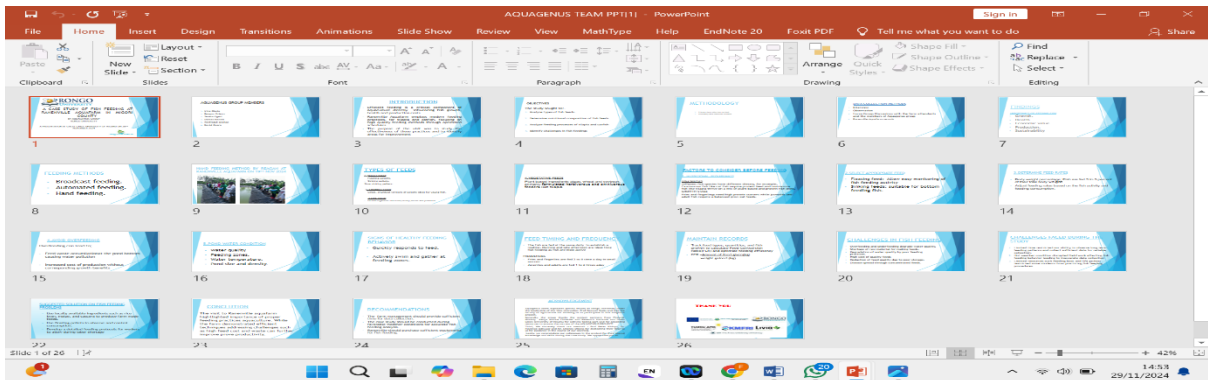
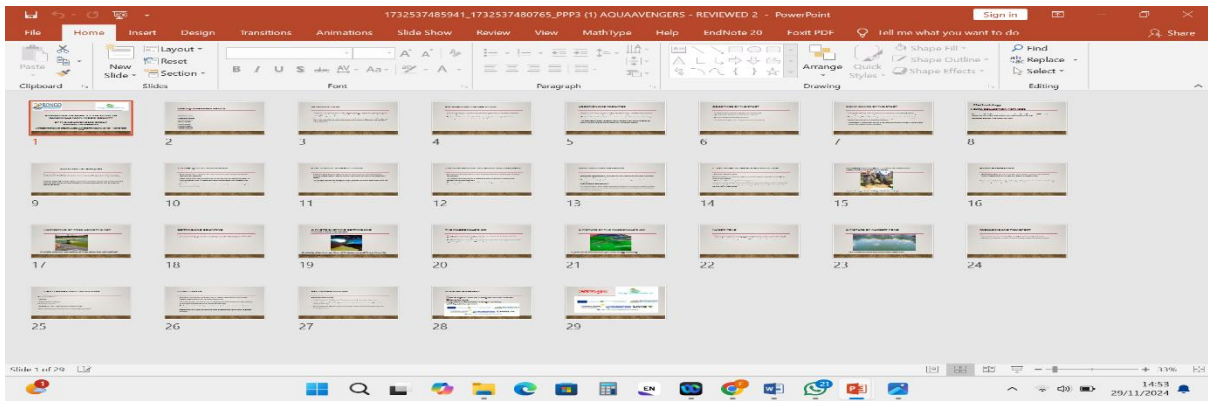
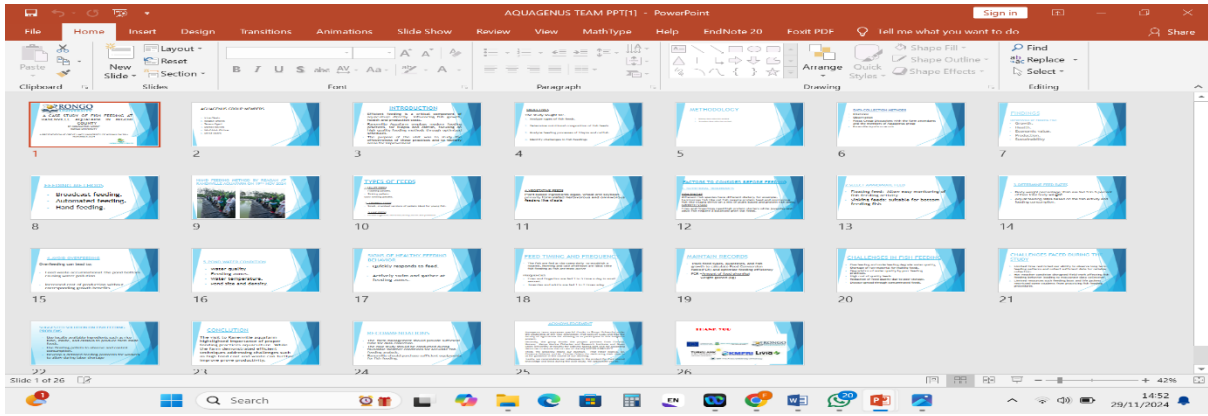


Plate 15: Screen shots of some of the students' presentations



AQUADEVBUS PROJECT STUDENT FIELD EXPERIENCE EXCHANGE FOR WORK PACKAGE 3 AT GLUK KIBOS
CAMPUS, KISUMU.
ATTENDANCE LIST

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Plate 16: Attendance list for the Students' Engagement Event on 28th November 2024

Deliverable 3.3.2 Number of experiments set up

TASK 3.3.2 Learning centers for experimentation are set up

Experiments have been set up at Aquarech, a Learning and Aquaculture Training Centre and, one of the partners in the AQUADEVBUS Project. Learners will visit these sites periodically to carry out experiments and carry out observations from the experiments that have been set up. Experiments set up and facilities available for the learners are shown in Plate 17 to 24 below.

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Plate 17: Circular tanks at the training facility



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Plate 18: Holding tanks in the training facility



Plate 19: A concrete tank for holding fries at the training facility



Plate 20: Experiments set up at the Aquarech Training Centre



Plate 21: Ponds for breeding of broodstock at the training farm



Plate 22: Nets being laid out for use in the ponds; construction of hatchery ongoing



Plate 23: A classroom laid out for learners at the Aquarech training Facility



Plate 24: Fish feed under storage at the Training Facility

Deliverable 3.3.3 Case study reports.

TASK 3.3.3 Case studies in selected setups will be used to learn complex issues by applying critical thinking and exploration of topics in aquaculture.

Aquaculture Community projects site visits were made by learners during the month of November 2024 to undertake case studies and gather knowledge on complex aquaculture topics. Case study reports were then developed by the learners on their findings. The learners were able to make oral presentations of these findings during the event reported in deliverable 3.3.1 above. Case studies will be used for multi-competency learning in the aquaculture course.

Pictures of learners undertaking various activities during the case studies and screen shots of some of the case study reports are provided in Plates 25 to 34 below.

Case Study Activities at Great Lakes Aquaculture Farm in Bondo Siaya County



Plate 25: Preparation for the study and receiving instruction on aquaculture



Plate 26: Learning about fish feed formulation and processing



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Plate 27: Learning about pond and cage farming



Plate 28: Learning at the hatchery

Case Study Activities at Ranenville Farm in Migori County



Plate 29: Learners being instructed on Aquaculture



Plate 30: Learners practicing harvesting of fries



Plate 31: Learners practicing use of nets for harvesting fries



Plate 32: Learners practicing fish feeding



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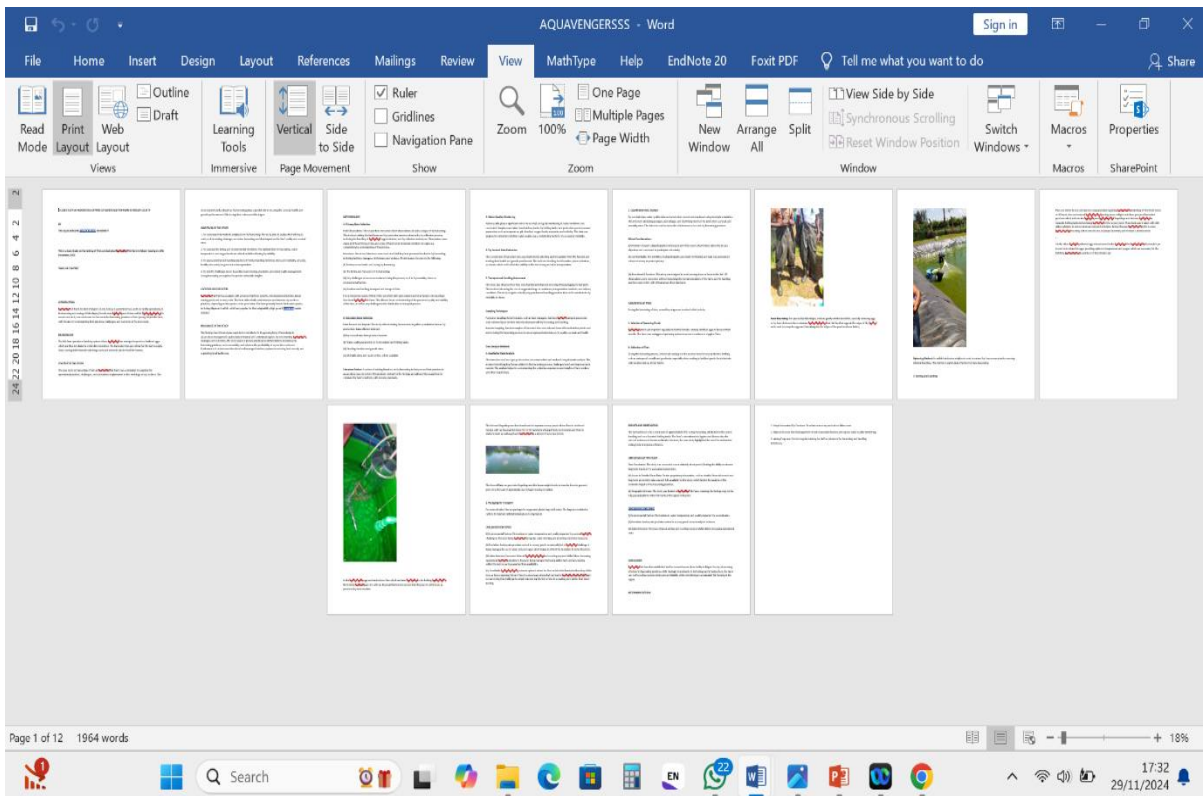


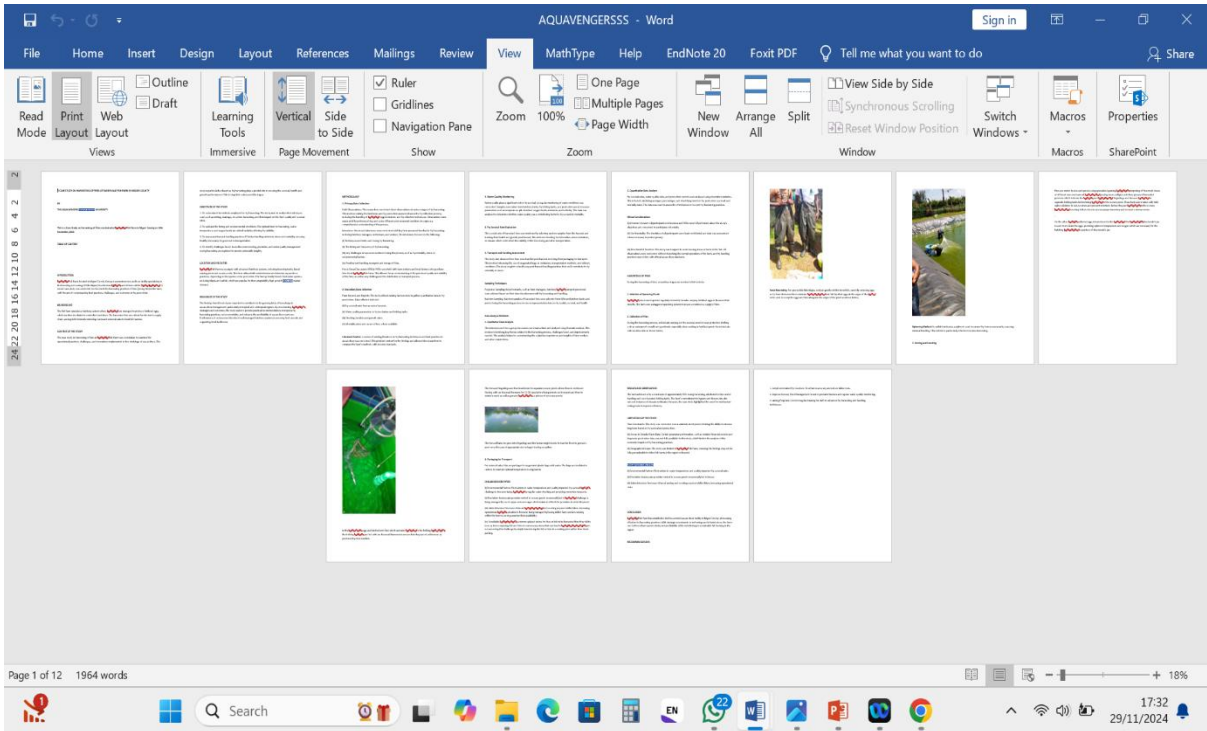
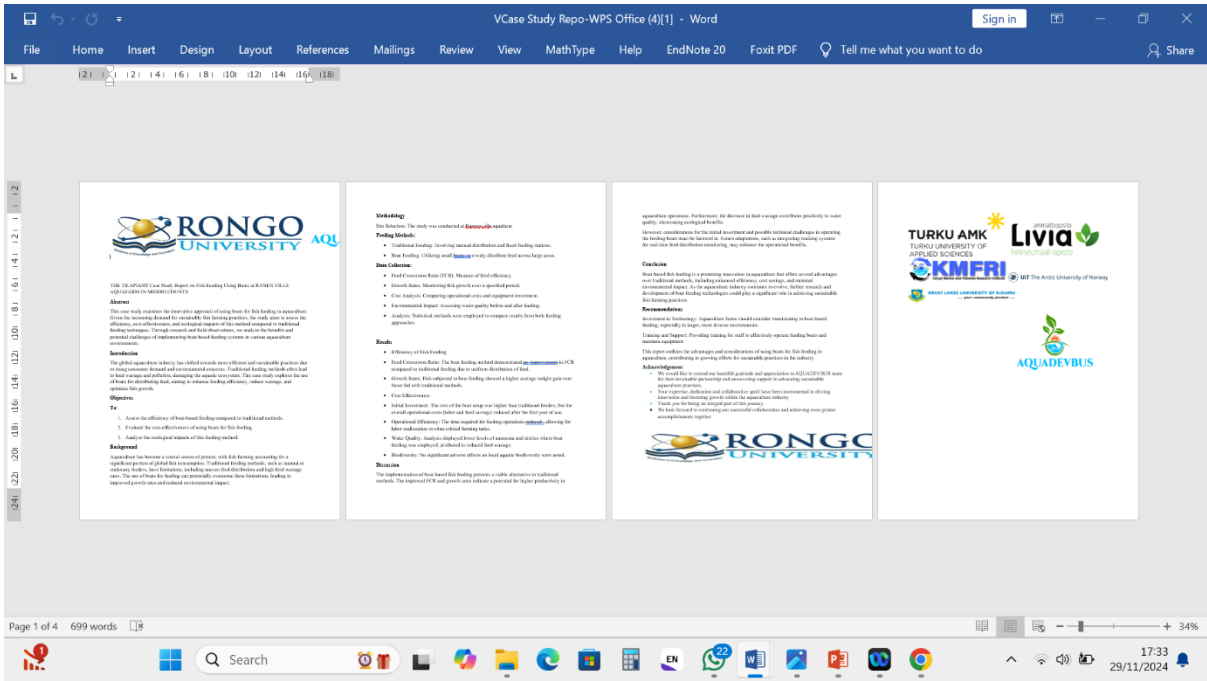
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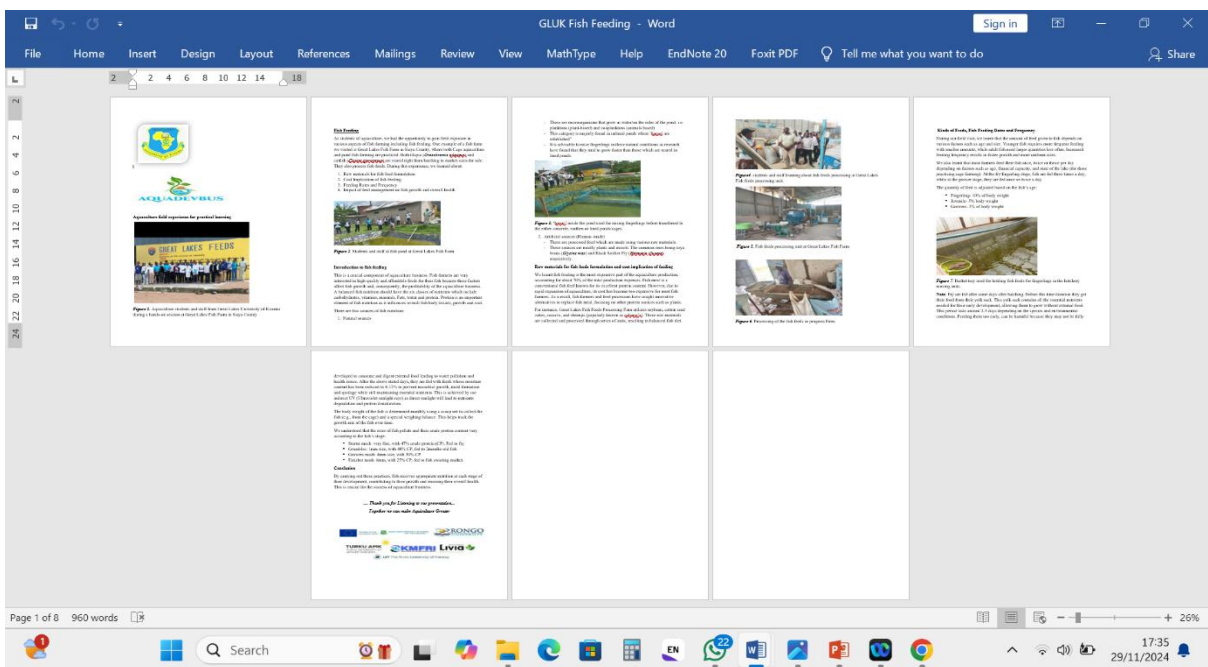
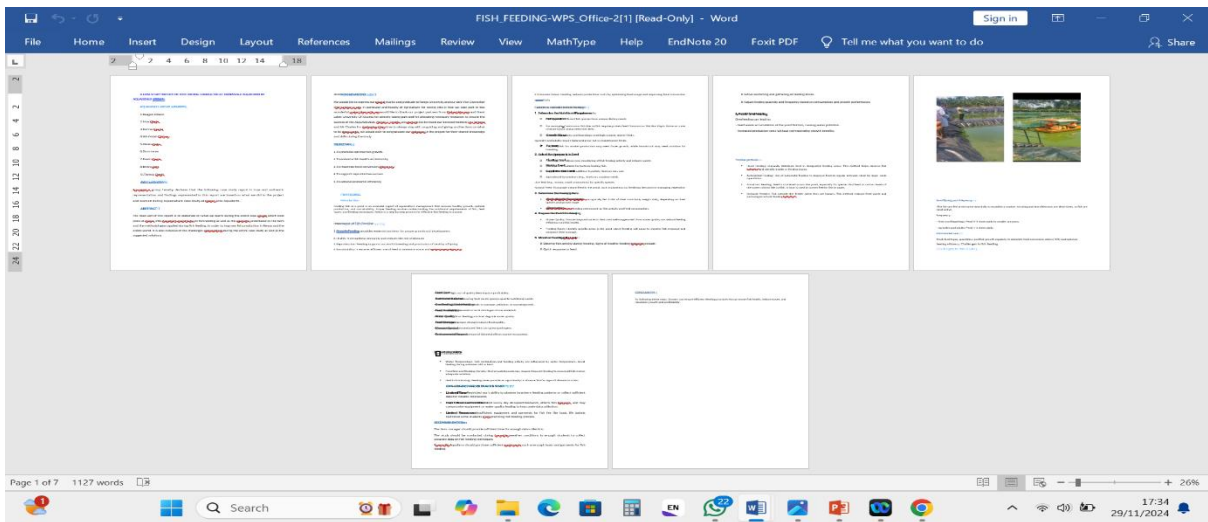


Plate 33: Learners practicing fish feeding by boat

Images of Case Study Reports







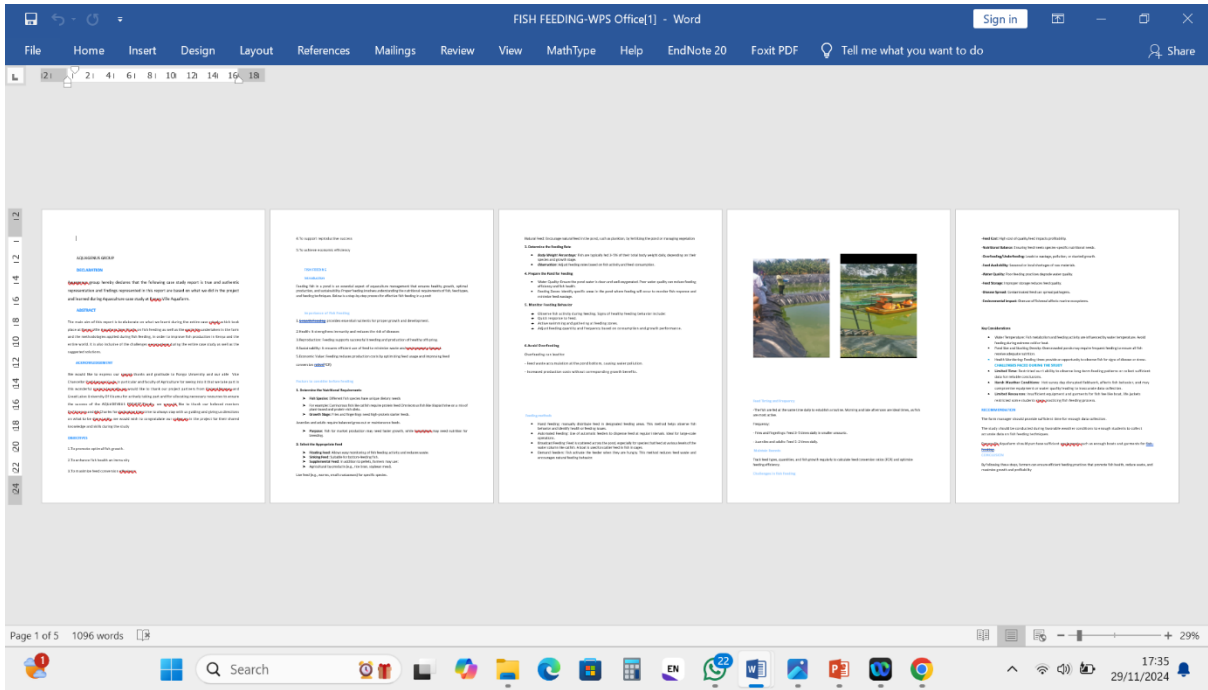


Plate 34: Screen shots of Case Study Reports





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