

1.0 Introduction

1.1 History of AKUATROP

The Institute of Tropical Aquaculture (AKUATROP) in Universiti Malaysia Terengganu (UMT) was established in 2004. This is in line with the aspiration of the Malaysian government to increase aquaculture production from 200,000 metric tonnes in 2004, to 600,000 metric tonnes by 2010.

The first director of AKUATROP was Prof. Azmi Ambak and the Deputy Director was Assoc. Prof. Dr. Abol Munafi Ambok Bolong. They were involved in the early formation of AKUATROP and in the first two years after AKUATROP was first established. Both have contributed tremendously in the development of the institute resulting in seminars, and memorandums of understanding (MoU) with prestigious companies such as Kembang Subur Sdn. Bhd., Kelah World and Langkawi Underwater World Sdn. Bhd. AKUATROP also had international collaboration with others university as a research partner, such as the University of Bergen and the Veterinary Research Institute, Hungarian Academy of Science, Prince Songkla University and the University of Can Tho, Vietnam.

AKUATROP is one of the 21 centres of aquaculture excellence in the world and has a wide network with other aquaculture institutions locally and internationally for research cooperation. In achieving its vision to be the best research centre for aquaculture, AKUATROP provides excellent research facilities and expertise in a broad area of aquaculture. Besides that, it is also the main centre for research, information dissemination, services, training and technology transfer in the aquaculture industry. It is hoped that the establishment of AKUATROP will enhance the development of human resources and also Research, Development and Commercialization (R&D&C) in producing capable scientists, government officers and successful entrepreneurs in the field of aquaculture.

1.2 Facilities

Presently there are four research laboratories (Aquatic Organism Health, Fish Nutrition, Aquaculture Biotechnology and Soil and Water Quality laboratory) and one freshwater and one marine hatchery. There are concrete cemented tanks, fiberglass tanks and PVC tanks. All-day aeration and break down standby power supplies are installed in the hatcheries.

AKUATROP has good collaborative links with other institutes and one example of smart partnership is the relocation of biotechnological equipments purchased by AKUATROP to institute of Marine Biotechnology. In this way, AKUATROP has managed to solve the problem of inadequate laboratory space at AKUATROP while helping the Institute of Marine Biotechnology solve shortage of biotechnology equipments.



Measuring microscope for fish health diagnosis



AKUATROP Research Staff were using the digital compound microscope



AKUATROP Signboard in front of Management Building



Rearing aquarium for clownfish study



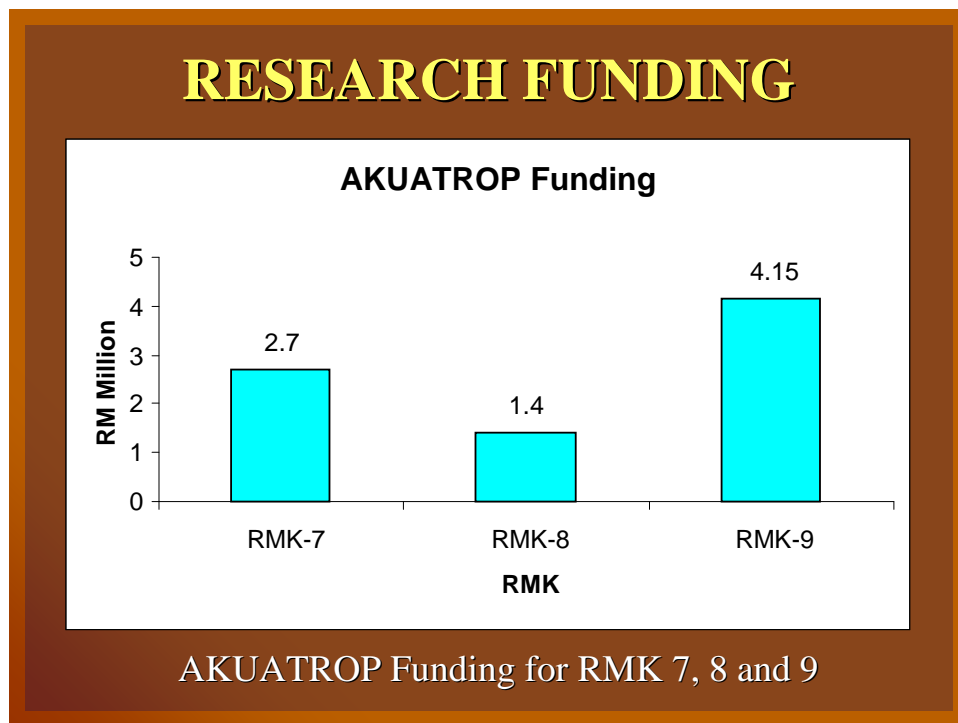
Biotechnology Equipment; Real Time PCR Machine in IMB



Well equipped Fish Health Laboratory

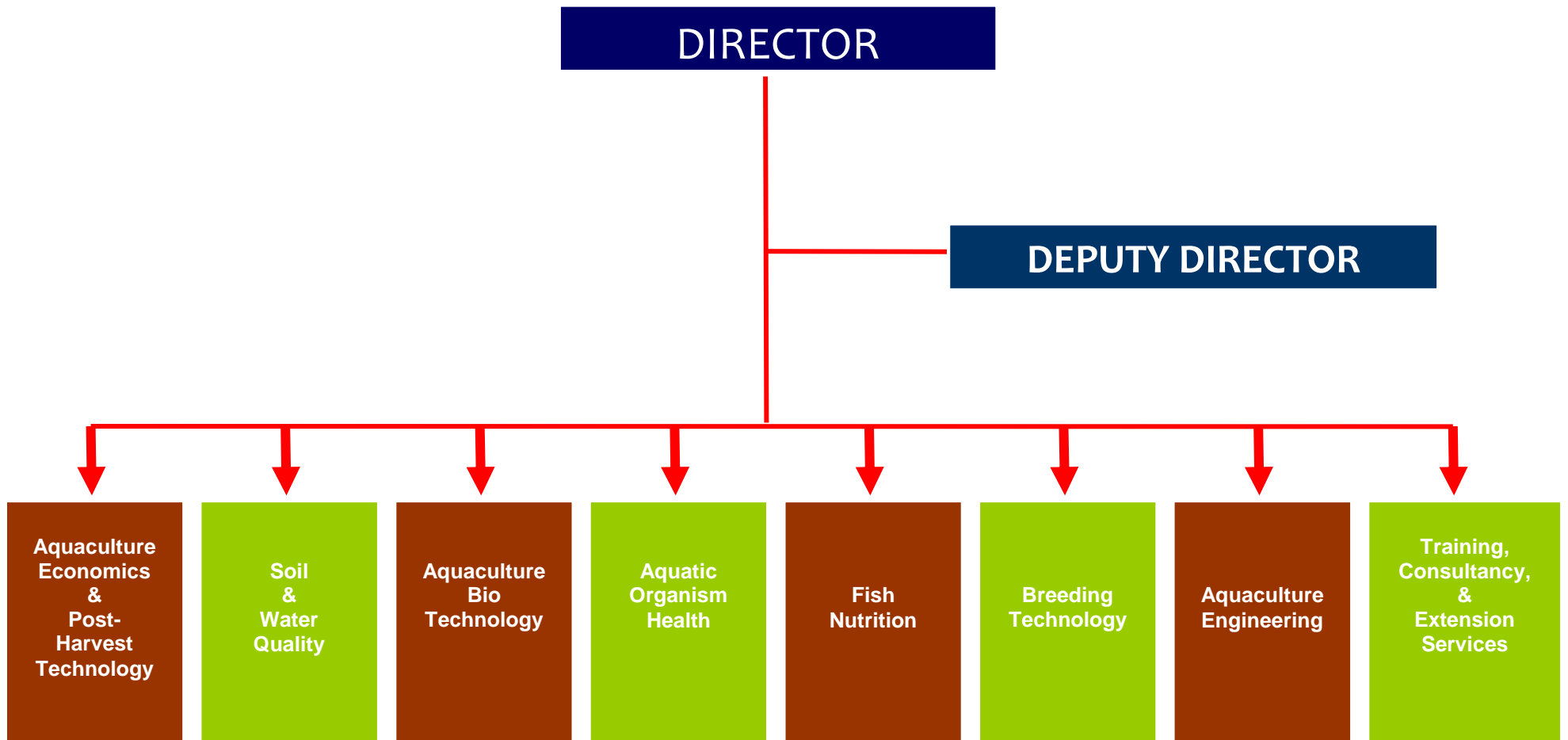
1.3 Research Overview

The Institute of Tropical Aquaculture is given the role to facilitate and carry out aquaculture research in UMT. Researchers in UMT are actively engaged in teamwork research. The study on aquatic organisms including breeding of aquatic organisms, fish nutrition, soil and water quality, biotechnology, engineering, disease and health, economics and post harvest technology have been intensively conducted. The following bar chart shows the amount of grants that AKUATROP lecturers have obtained in RMK-7, 8 and 9.



1.4 Research Units

There are eight research units in AKUATROP. Each research unit contributed to the research conducted at the institute.



Staff Directory



Director
Prof. Dr. Faizah Mohd. Shaharom



Deputy Director
Assoc. Prof. Dr. Anuar Hassan



Senior Researcher
Assoc. Prof. Dr. Abol Munafi Ambok Bolong



Senior Researcher
Dr. Zaleha Kassim



Principal Researcher
Dr. Hii Yii Siang



Lecturer
Liew Hon Jung



Lecturer
Norainy Mohd Husin



Research Fellow
Dr. Anil Chattergi



Research Fellow
Dr. Nandana Gunawickrama

Supporting Staff

Administrative	6 persons
Science Officers	6 persons
Fisheries Officers	2 persons
Assistant Science Officers	3 persons
Assistant Fisheries Officers	1 person
Driver	1 person

ADMINISTRATIVE



Assistant Registrar
Wan Zawati bt. Wan Jaafar



Administrative Assistant (Financial)
Nor Fadliyah bt. Awang



Administrative Assistant (P/O)
Wan Anilawati bt. Wan Ngah



Administrative Assistant (P/O)
Nor Ashikin bt. Nawawi (Contract)



Secretary to Director
Maslina Masor



Secretary to Deputy Director
Nor Irina Sairah binti Mainong

SCIENCE OFFICERS



Science Officer
Farizan Abdullah



Science Officer
Imran Affandi Baki (Contract)



Science Officer
Mohd Ihwan Hj. Zakariah



Science Officer
Fara Nor Asmira Jastan



Science Officer
Noor Zuliana Mohd Nor



Science Officer
Suhairi Mazelan (Contract)

FISHERIES OFFICERS



Fisheries Officer
Muhammad Haniff b. Mohd Yusoff



Fisheries Officer
Nurul Hayati binti Ismail (Contract)

ASSISTANT SCIENCE OFFICERS



Assistant Science Officer
Wahidah bt. Wahab



Assistant Science Officer
Muhamad Shukri bin Shafie (Contract)



Assistant Science Officer
Mohd Shafiq Mohd Razak

ASSISTANT FISHERIES OFFICERS



Assistant Fisheries Officers
Mohd Sabri Muda

DRIVER



Driver
Mohd Shukri Yusof

1.5 Training, Consultancy and Services

One of the thrust activities of AKUATROP is to develop human resources for the industry. Presently, there are postgraduate students pursuing Master Science and PhD Degree by research and Master of Aquaculture by coursework. Currently AKUATROP has 36 postgraduate students.

Other than postgraduate studies, AKUATROP also conduct short-term training course. The short-term courses are to provide hands-on training to the entrepreneurs, farmers, officers and other interested individuals. The short-term training are mainly focused on application and hands-on practical. Participants of the short-term training course will be able to master the basic techniques of the relevant subjects. Some of the short-term training provided by AKUATROP are as follows:

	Courses/ Training/ Workshop	Duration
1	Live Feed Culture	5 days
2	Water Quality Analysis for Aquaculture Purposes	5 days
3	Basic Nutrition for Aquatic Organisms	3 days
4	Basic Disease Diagnosis for Aquatic Organisms	5 days
5	Aquaculture Seed Production	14 days
6	Ornamental Fish Culture	10 days

AKUATROP also provide consultancy and analytical/diagnosis services to farmers. Presently, there are three types of services; diagnosis of disease, determination of feed quality and water and soil quality services. AKUATROP aims to assist the aquaculture industry by providing advice on selection of suitable culture sites, risk-cost analysis, selection of profitable species and other technical aspects.