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Poster Book

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20 JANUARY 2023
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DESIGN QUALITY OF FRESHWATER LOBSTER FARMING IN TELUK INTAN

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INTRODUCTION

Perak River is the second longest river in Peninsular Malaysia, after Pahang River. With a total length of 420 km, Perak River is a unique river system as it is the only river in Malaysia that has four consecutive hydroelectric dams, namely, Temengor, Bersia, Kenering and Chenderoh. Constructed in different years, these four dams have their own geomorphology characteristics, especially in terms of sizes and depths. The dam constructions have indirectly converted the riverine system into a new lacustrine system in all four reservoirs. (Hashim et al., 2012)

Perak river also is one of the largest raw water sources for the whole state of Perak. One of the best Perak river raw product is, *Macrobrachium rosenbergii* (Fresh water Lobster), Cyprinidae (Carp and minnow), Notopteridae (belida), Channidae (snakehead), Eleotridae (bakut/belosoh), Bagridae (kel), Tetraodontidae (buntal), Baung ekor merah. (Hashim et al., 2012). Making living from Perak River has become cultural activities for the local communities for them to interact to each other. But even with the money you gain everyday, it wasn't enough to maintain the facilities for them to use every day.



PROBLEMS STATEMENT



Perak River water is significantly contaminated

Perak River water is significantly contaminated with Fe which is approximately eleven times higher than the standard value



No proper lobster farming in Teluk Intan

There is no proper lobster farming in Teluk Intan that can commercialize them to other cities or states.



The increase in lobster predators in the river

ecological disaster is happening in major rivers in the country with the invasion of alien fishes from the mighty Amazon river of Brazil

RESEARCH AIM

The main aim of this study is to create a modern yet very close **community** lobster centre for community to increase their socio-economy of Teluk Intan.

RESEARCH QUESTION

How are the freshwater lobster farm can imitate the Perak River for lobster to breed?

What is the most recent and suitable technology to farm freshwater lobster?

What quality of freshwater lobster farm doesn't harm the river and the Perak River?



RESEARCH OBJECTIVE

To **study** how to imitate Perak River into the lobster farm.

To **find** the most recent and suitable technology to farm freshwater lobster.

To **study** the least harmful method of farming the freshwater lobster to the river and other habitats.



SCOPE RESEARCH AND LIMITATION

As the research conducted in Teluk Intan, this study must take account the limitations. This research will look into freshwater lobster farming, with a focus on the species as the main constant variables as it different with climate. This research will also look into case studies from Malaysia and other countries as the previous research papers and guidance on the subject which are limited.

NOVELTY

Further investigation of findings of this study could involve examining local small farming projects with well design farming area.

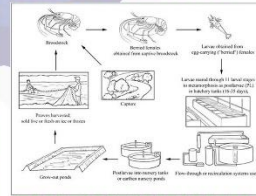
Experts in local lobster farming sector can expand on the question raised by this study and provide their commentary to improve this research findings

RECOGNITIONS



LITERATURE REVIEW

Freshwater lobster production



Extraction and profiling method

Filtering level to choose with the efficient extraction method.

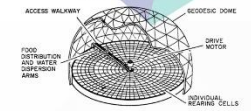
The comparing level amino acid, nucleotide 5, dissolved sutgar, and acid organic is used as an active-sense indicator.

Extraction and profiling method

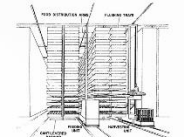
Hydroxytoluene (HBT) is proven as the dominant aroma in all lobster extracts.

Freshwater lobster farming method

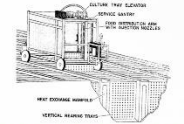
Care-o-system



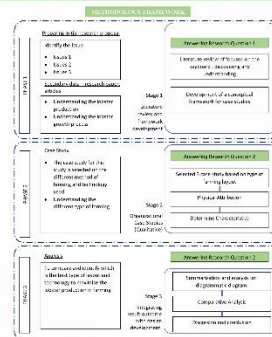
Flushing tray system



Deep tank system



METHODOLOGY



Precedent study

The case study for this study is selected on different methods of fish farming centers throughout Malaysia and other countries

Document analysis

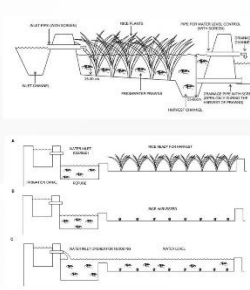
By reading other people's studies, and journal, the most effective method and that have least harm for the surrounding and lobster is suggested for Teluk Intan

FINDING AND ANALYSIS

Objective 1

In order to immitate the best habitate for lobster farming gher system from Bangladesh is very suitable methods. the system use the original habitate and food for the lobster

Effective methods



Objective 2

Attributes	Case one	Case two	Case three
Technology	Gher system	Genetic improvement	Vertical farming
Planning	Earthen ponds	Earthen ponds	Indoor farming
Water source	Paddyfields	River, paddy fields, lake	River, paddy fields, lake
Amount of lobster	Low	Very high	High
Cost	low	Very high	High
Impact on surrounding	Low	Very high	Medium

CONCLUSION AND RECOMENDATION

In conclusion, the research aim is achieved after all the data collected shows the possibilities of improving lobster farming in Teluk Intan is very high. in order to achieve higher amount of lobster production in Teluk Intan, a lot of steps and measure to be taken to fasten the process.

There are a lot of studies and initiatives that have been done by designers or architects in providing initiative and functional architectural layout for lobster farming for the user and farmers, perception of people on innovative lobster farming in Teluk Intan are positive however, some criteria such as local adn government support is very important to make use of the desertation

COMMERCIALIZATION

Guidlines on Lobster farming design

Specialization on Lobster farming industry

New special technology for Teluk Intan farming method