UNIVERSITI TEKNOLOGI MARA

WAVE SUFRFACE ELEVATION PATTERN OF THE RECREATION BOAT IN VARIOUS WAVE HEADING CONDITION

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CHAPTER1: INTRODUCTION

1.1 **Background of Study**

In this project I studied about the wave surface evaluation pattern of the recreation boat in varios wave heading condition. Some of the boats that I studied are Payang, Badar and Kolek. Each boat will produce a different wave pattern. the resulting wave will cause erosion on the cliff. Some of the adverse effects of bank erosion is that it will cause the lake or river to become shallow and it can result in flash floods.

1.2 **Problem Statement**

The main problem in this project is that big waves can erode the cliffs. this can result in the bottom of the lake or river becoming shallow, and if this happens it increases the risk of flash floods in the surrounding area. Some of the hull that suit for recreation purpose is Payang, Badar and Kolek.

1.3 OBJECTIVE

1. The main purpose of this project is to analyse Wave surface elevation pattern of the recreation boats in various wave heading condition using the Ansys Aqwa

2. Compare the wave pattern among Payang, Badar and Kolek

1.4 Scope Of Work

Firstly designing the hull using PolyCad and Solid works.

Then identify the wave pattern using Ansys Aqwa.

Lastly compare and choose the least boat that produce waves. On this project 3 type of boats, Payang, Bedar and Kolek has been choose to be studied.

1.5 Significances Of Study

The significance of this study of this project are to study wave surface evaluation pattern of the recreation boat in various wave heading condition using Ansys Aqwa. In this project I need to study three type of hull and compare them. I need to choose which one more suitable to use as recreation boat. The one who produce less wave is the best choice because big wave will erosion on the cliff.