

**SITE SUITABILITY FOR DEVELOP
A NEW HOSPITAL IN MARANG, TERENGGANU
USING GIS APPLICATION**

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ABSTARCT

Site Suitability for Develop a hospital In Marang, Terengganu using GIS Application

This project aims to evaluate the suitability of a potential site to establish a hospital in the district of Marang, Terengganu, using ArcGIS Pro software and related tools to achieve the successful completion of the project. This study evaluates various criteria, such as safety and demographic suitability and so on. The data obtained from Plan Terengganu will be used to identify the optimal location that is in line with the community's standards and needs. The findings aim to offer insights into effective site selection strategies for developing healthcare infrastructure in the area. Several factors need to be taken into account when building a new hospital in Marang, Terengganu, to ensure that the facility meets the needs of the local population. Finding the right criteria for this project can be helped by using the multicriteria analysis method. The location of the hospital should make it easier for most people to get there faster. Central location in the community, accessibility to public transport, and proximity to major roads are all important considerations. Finding the required capacity for a hospital can be helped by assessing current and future population density. Areas with higher population density may require larger hospitals that offer more services. Spatial analysis may be an effective approach in determining the best location for a hospital in Marang, Terengganu. Planners can use this approach to visually assess various demographic and geographic aspects that are important to the success and accessibility of hospitals. This can make it easier to find suitable and unsuitable sites for the construction of new hospitals in Marang district and can even reduce the risk of landslides and soil erosion. in using the Multi criteria analysis method.

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CHAPTER 1

INTRODUCTION

1.0 Introduction

Hospitals today have become the most important facilities for curing people's health related problems and improving healthy living standards (Halder et al, 2020). A hospital is a health care institution that provides patient treatment with specialized health sciences and additional health care personnel and medical equipment.

One of the most important components of infrastructure development is the hospital. The need for additional hospitals increases with the increase in population, especially in developing countries. This makes health planning increasingly important in a global and local perspective. Land use suitability analysis is one of the most useful uses of GIS in planning. It determines the best spatial for land use in the future based on the needs, tendencies or predictors of specific activities. Optimal site selection can be made by integrating various factors based on spatial proximity using GIS (Christina Albert Rayed Assad, 2019)

In the district of Marang, there is only one health clinic for the residents of Marang, Terengganu, this causes the residents of Marang to go to the main hospital in Kuala Terengganu. This will cause residents in Marang district to have to take a long time to get treatment and there will be congestion while waiting for a queue number.