# SPATIAL MAPPING AND ANALYSIS OF DEFORESTATION IN ROMPIN, PAHANG USING REMOTE SENSING TECHNIQUE

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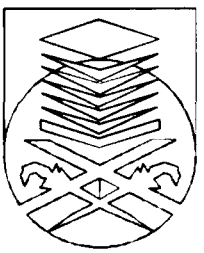

**Thesis submitted to the Universiti Teknologi MARA Malaysia**
**in partial fulfilment for the award of the degree of the**
**Bachelor of Surveying Science and Geomatics (Honours)**

**AUGUST 2023**

## ABSTRACT

This study explores the spatial mapping and analysis of deforestation in Rompin, Pahang, utilizing remote sensing techniques. The main objectives are to produce a land cover classification, analyze changes specifically in the forest area for the years 2013, 2016, 2018, and 2020 using ArcMap, and create a change detection map. The methodology involves employing land classification and change detection techniques through the utilization of ArcMap and Google Earth Engine. This research fulfils a requirement for the GSS 681 subject in the Bachelor's program of Surveying, Science, and Geomatics at the Faculty of Surveying, Science, and Geomatics. The findings of this study contribute to a better understanding of deforestation patterns in Rompin, Pahang, and provide valuable insights for land management and conservation efforts.

## ACKNOWLEDGEMENT

I would like to extend my sincere appreciation to all those who have played a pivotal role in the completion of this thesis. First and foremost, my heartfelt gratitude goes to my supervisor, Prof Sr Dr Zulkiflee Abd Latif. Not to forget Puan Pauziyah bin Mohamad Salim for helping me to understand more about using Google Earth Engine which kind of new to me but with passion and strong attitude to learn, I manage to handle the pressure. Their guidance, unwavering support, and invaluable expertise have been instrumental in shaping the direction and quality of this research. I am truly grateful for their mentorship throughout this journey. To my family especially my father and my mother who gave me support throught thick and thin and friends especially Nurfarhanah for helping me and guide me during this research, I am indebted to your unwavering support, understanding, and motivation throughout this challenging endeavour. Your encouragement and belief in my abilities have been a constant source of strength and inspiration.

Finally, I wish to express my deep appreciation to all the researchers and scholars whose previous works and publications have laid the foundation for this study. Their contributions to the field have served as a guiding light and have enabled further exploration and understanding. While it is not feasible to mention everyone individually, please know that your contributions are sincerely appreciated and have played a significant role in the completion of this thesis. Thank you all for your unwavering support, guidance, and invaluable contributions.

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# CHAPTER 1

# INTRODUCTION

## 1.1 Background Study

Forest is a complex biological system in which trees are the primary life-form in this planet. A forest is nature's most efficient ecosystem, with a high rate of photosynthesis that affects both plant and animal systems in a complex web of biological interactions. Forests are among the world's most complex ecosystems. Not only that, but the forest is critical for absorbing carbon dioxide and releasing oxygen, both of which are essential for people. Malaysia is one of the countries that have many forests that contain some 1671 known species of amphibians, birds, mammals and reptiles. We may infer from this that maintaining Malaysia's biodiversity is crucial to maintaining our forests. This is due to the fact that Malaysia is one of the nations whose forests are often endangered by deforestation.

Pahang is the 3rd biggest state in Malaysia behind Sarawak and Sabah and the biggest state in Peninsular Malaysia. Pahang is a state rich in abundant natural resources and has various species of flora and fauna. Pahang is an important natural water catchment area in Peninsular Malaysia because Pahang has many tropical rainforest areas which is rich in various types of trees, especially log trees such as Chengal, Balau Merah and Balau. Pahang also have the biggest preserved forest in peninsular Malaysia which is Malaysia National Park or we called it "Taman Negara Malaysia" which is home to tigers, birdlife and the biggest flowers in the world, rafflesia. This makes Pahang one of the areas that have the potential for deforestation to occur. It is because there are many causes of why deforestation can happen such as illegal logging, agricultural activity, mining activity and development. If this matter is not taken seriously, it can lead to disaster like flood and landslide. When this happens continue drastically it can