

**ASSESSMENT OF LAND USE IN KLANG
FOR THE YEAR 2010 AND 2020.**

**MUHAMMAD SYAWAL ADDIN BIN HAZERINAF HATA
MUHAMMAD MIRZA RAZIN BIN SARIZAM**

**Final Year Project Report Submitted In
Partial Fulfilment of Requirements
For The Diploma in Geospatial Technology
In The College of Built Environment
Universiti Teknologi Mara**

JULY 2024

ABSTRACT

Assessment Of Land Use in Klang For The Year 2010 And 2020.

Over the past ten years, Klang, a historic city and major economic centre in Selangor, has seen substantial industrial and urban expansion. The study's mapping and comparing of land use trends shows how agricultural and underdeveloped regions are changing into industrial and residential zones. With the use of advanced GIS programs like ArcGIS Pro and ERDAS Imagine, this study examines how land usage has changed in Klang, Malaysia, between 2010 and 2020. The results highlight how the city's environment is impacted by population increase, infrastructural development, and economic activity. To minimize negative effects and guarantee that Klang's future growth is both ecologically and financially feasible, recommendations place an extreme value on its importance of environmentally friendly planning and the environment techniques.

ACKNOWLEDGEMENT

Alhamdulillah, thanks to Allah, the Almighty, who is ultimately our source of support and direction. The One who provides us with the strength and opportunities to be responsible, dedicated, and excellent students during our last year at UITM. For the past 6 Months starting from 18 March 2024 truthfully, our project title is GIS Analysis of Land changes variation in Klang, Selangor for years 2010 and 2020. We want to sincerely thank Allah for His goodness and blessings, which have enabled us to work hard toward finishing this large-scale project, especially during the difficult times. To be honest, we are appreciative that we snatched the opportunity that provided a benefit in return.

First, we would want to sincerely thank and appreciate our family, who have been our greatest supporters this year, for their continuous support, prayers, and advice. The project will always be valued highly for the growth of our workforce. The knowledge and skills developed throughout the course of these six months will always be valued and explored. Not to be forgotten, we are very grateful to Universiti Teknologi Mara (UITM) for making this possible. Sincere gratitude is extended to our supervisors, Sr. Gs. Sir Mohd Najib bin Husain, who oversaw our final year project and provided most of the advice and guidance needed for us to succeed at this time. We are appreciative and humbled to have had wonderful lecturers and friends at our side along the course of this project and its progress. We are grateful to have such a gifted friend, and we would especially like to thank Adam Irfan, Muhammad and Dr. Mat Nizam for their wisdom and advice, as well as for the food, especially at lunchtimes, jokes, and laughs we shared during stressful times when we were trying to concentrate our hearts and minds on finishing this project. Additionally, I would like to thank everyone who has indirectly assisted us with the research and creation of this project.

TABLE OF CONTENT

	PAGE
ABSTRACT	i
ABSTRAK	ii
ACKNOWLEDGEMENT	iii
LIST OF FIGURES	vi
LIST OF TABLES	vii
LIST OF ABBREVIATIONS	viii
CHAPTER 1 INTRODUCTION	1 – 3
1.1 Objective	4
1.2 Background Study and Problem Statement	5
1.3 Problem statements	6
1.4 Significant of Project	7 – 8
CHAPTER 2 LITERATURE REVIEW	
2.1 Overview	9
2.2 Land use land changes study	9 – 13
2.3 Conclusion of literature review	13 – 14
CHAPTER 3 METHODOLOGY	
3.1 Overview	15
3.2 Study area	15 – 16
3.3 Data Process Procedure	17 – 18
3.4 Criteria for the cause of temperature increase	18
3.4.1 Infrastructure impact	18

CHAPTER 1

INTRODUCTION

Towns like Klang in the state of Selangor, has provided and developed itself as one of the oldest and historical cities in Malaysia. Located at the side of Klang River, the city has been essential trade and commercial hub for many years. The sultanate's location on the western part of Sumatra near the Straits of Malacca rendered it suitable for commerce, thus receiving traders from different parts of the globe. The sites that provide clear signs of the city's age are characterised by highly developed architectural structures like the Sultan Sulaiman Royal Mosque and the Klang Palace which is considered as an interface of colonial and the oriental architecture. Klang currently has a population of about one million people based on data obtained from recent estimates. The city occupies a total area of 573 square kilometres or 221 square miles of area.

It is among the prominent cities found in the Klang Valley and hence has a very important position in economic as well as social structure of the region based on highly populated nature of the city. Situated in the Klang District, Port Klang ranks as the world's 12th busiest container port and transshipment port. With 240,016 residents overall as of 2010 (10,445 in the city core), Klang City is the second-largest city in Selangor, followed by Klang District (842,146) and all the towns under the management of Klang Municipal Council (744,062). It is the home of about 70 freight and transport companies, over 95 shipping companies and agents, 300 custom brokers, and 25 container storage facilities. Into 2013, it was responsible for about half of Malaysia's seaborne container traffic. To turn Port Klang into a hub for trade and logistics as well as regional distribution, the Port Klang Free Zone was founded in 2004. Because of the numerous factories and developments contributing to the land changes. Klang is a distinct and vibrant area in