

**LOCALISED ADJUSTMENT'S EFFECTIVENESS IN  
STRENGTHENING NATIONAL DIGITAL CADASTRE  
DATABASE (NDCDB)**

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## **ABSTRACT**

In the past few decades, there have been significant changes to Malaysia's cadastre survey system on the institutional, operational, and technological fronts. These developments are primarily being driven by the adoption of strict quality assurance procedures, the integration of cutting-edge technologies like GPS, GIS, and remote sensing, and the move to metrication for better data consistency. A significant move in the direction of digital land management systems is the launch of the eCadaastre project under Malaysia's 9th Development Plan. The goal of this project is to standardize and organize land parcel data, with a focus on creating the National Digital Cadastre Database (NDCDB). The eCadaastre system boosts spatial data analysis, visualization, and decision-making capabilities by utilizing GIS and ICT breakthroughs. This leads to more effective resource management and sustainable development practices. This thesis evaluates the effects of these modernization initiatives on public service delivery, administrative effectiveness, and cadastral survey accuracy using particular areas and empirical analysis. It also looks at the bigger picture in terms of Malaysia's economic expansion and environmental sustainability. Through the adoption of state-of-the-art technologies and methodical approaches, Malaysia hopes to create a strong basis for open and efficient land management that is in line with international standards and best practices.

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## **CHAPTER 1**

### **INTRODUCTION**

#### **1.1 Background Study**

The Malaysian cadastre survey system has seen substantial changes in the last few decades in terms of its institutional, structural, operational, and technical aspects due to several important factors. In terms of theory, the transition to metrication improved consistency and accuracy in data gathering and analysis by standardizing measurements. The quality and scope of cadastral surveys have been further transformed by the integration of cutting-edge technology like GPS, GIS, and remote sensing. The quality and scope of cadastral surveys have been further transformed by the integration of cutting-edge technology like GPS, GIS, and remote sensing (Biljecki & Ito, 2021). In practical terms, strict quality assurance procedures have been put in place to uphold high standards of data reliability, while economic improvements have reduced procedures, lowering administrative obstacles and increasing efficiency. The requirement to fulfill the growing demands of clients, including landowners, developers, and government agencies, as well as the broader governmental need for strong land management systems to support planning, development, and legal frameworks, has spurred these changes in land management practices. As a result of all these changes, Malaysia's cadastral survey system is now more accurate, responsive, and effective (Nasu, 2019). In addition to improving DSMM's productivity and efficiency in computations and plan drawings, IT has implemented a computerized system that introduces the idea of digital databases (Yunus et al., 2012).

The challenge of updating the cadastre system in Peninsular Malaysia has been given to the Department of Surveying and Mapping Malaysia (DSMM) in Malaysia (Choon et al., 2022). This modernization process is essential since state governments have the authority over cadastral surveys, land alienation, and transactions, hence an updated