

Data Management

Issues, Challenges and Opportunities

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Editors

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17. TROPICAL CROPS PLANTING RECOMMENDATION SYSTEM

Siti Safura Yasmin Sahibin and Akram M. Zeki

ABSTRACT

This study involves the analysis and design phase of a system that automates the evaluation of land. The focal aim of this project is to eradicate the needs to rate the suitability of land areas for several land use types (LUTs) manually. Tropical Crops Planting Recommendation System will be able to auto select LUTs according to known land characteristics and ensure that the LUTs searching practice of entered land characteristics will be easier and faster.

17.1 INTRODUCTION

Many scientists have described soil as the skin of Earth and have studied it in great detail because its properties are different from the properties of each of its components (John W. Doran et al, 2011). Sometimes terms, which refer to branches of soil science, such as pedology (formation, chemistry, morphology and classification of soil) (pedology, 2011) and edaphology (influence of soil on organisms, especially plants) (edaphology, 2011) are used as if synonymous with soil science. Collection of information over space and time has outperformed human ability to interpret and apply data of land qualities to its land use types (LUTs) correctly. Wrong interpretations may cause waste of time and money and could affect the country economy badly. The goal of site-specific management is to see a continuous improvement of management decisions, has lagged as a result of poor agronomic interpretation and information delivery, which opens the path for geographic information technology.