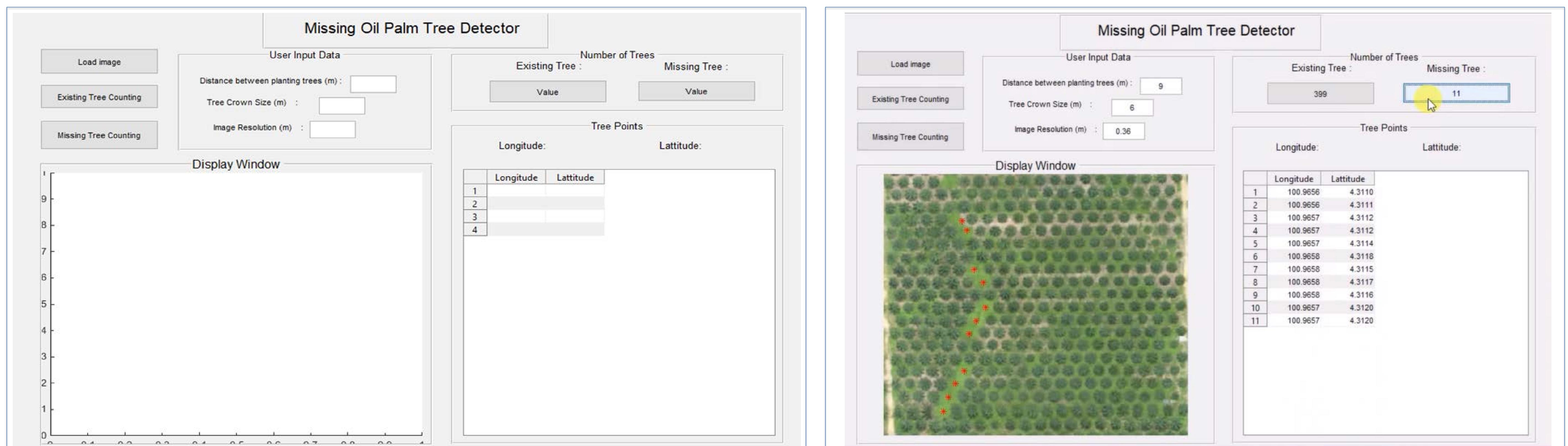


# Missing Oil Palm Trees Detection System

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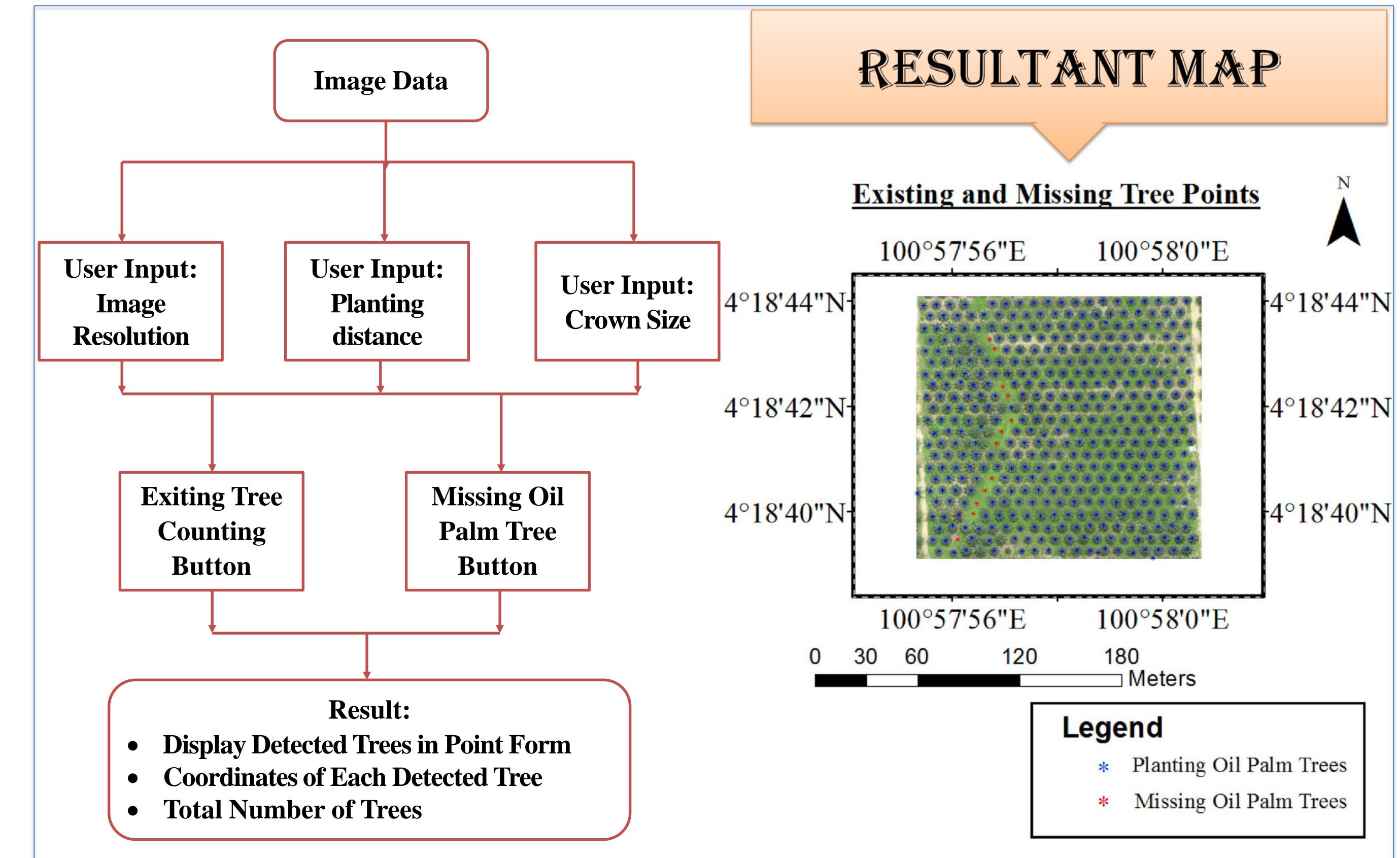


## INTRODUCTION OF TECHNOLOGY

In Malaysia, young palms are easily attacked by animals and insects as well as infected by diseases and finally the oil palm trees are dead. In current oil palm industry practices, missing oil palm trees are still manually counted by humans or manually digitized from the high-resolution aerial images. Due to the large scale of the oil palm plantation, manually counting of dead or missing oil palm tree is time-consuming and easily result in miscount due to human error. In addition, the existing oil palm counting process is eliminated in some plantation agencies and it replaced by estimating of the planting density for preparing the amount of fertilizer, pesticide, herbicide and other precision application. Estimation can be done by multiplying the number of palms along the row with the total number of rows. However, some of the palms are missed in rows and resulted in wastage or shortage in plantation application. It leads to unreachable yield optimization.

## INVENTION

Missing Oil Palm Trees Detection System provide an user friendly interface which allows user to identify the number of missing oil palm trees and its respective location in an effective and efficient manner. Moreover, the system also provides additional existing oil palm trees counting function which allows user to obtain existing oil palm trees data. There are only three parameters required from user which are the image resolution, oil palm crown size and oil palm planting distance. Workers without GIS or remote sensing background are able to operate the system well. The obtained results help in better management of the oil palm plantation.



## ADVANTAGES

The missing oil palm trees detection system has many advantages such as

- **User-friendly Interface**
- **Counting the existing oil palm trees**
- **Counting the missing oil palm trees**
- **Provide the location of each existing and missing oil palm trees**
- **Efficient and effective manner**

## MARKET POTENTIAL

### Consumer/End User

- GIS analyst, plantation owner
- Industry
- Oil Palm Industry



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