MANGROVE FOREST MAPPING

TECHNOLOGY DESCRIPTION

This technology is mangrove forest mapping using satellite images based on its similarity values which helps to detect plant growth and loss in mangrove forest area.

TECHNOLOGY FEATURES

It enables proper management and conservation to sustain and enhance the existence of mangrove forests. Selection of a threshold value can be solved by using the mangrove mapping technology. It can be utilized successfully to detect delayed harvesting locations. This technology accurately detects changes based on its local similarity values.

ADVANTAGES

- Detects and classify changes caused by plant growth or loss
- Can solve problems on selecting a threshold
- Accurately detect changes based on its local similarity values.

INDUSTRY OVERVIEW

Prospect: Tourism Industry

Mangroves are various types of trees up to medium height and shrubs that grow in saline coastal sediment habitats in the tropics and subtropics. The remaining mangrove forest areas of the world in 2000 was 53,190 square miles (137,760 km^2) spanning 118 countries and territories.

A country like Malaysia has the world's 5th largest mangrove area over a 0.5 million hectares with estimated total value of RM15,700 million obtained from forest annual revenue. It is meant to detect plant growth and plant loss in mangrove areas. The estimated cost of the invention includes RM18,000 per unit for setting equipment, RM3,276,000 cost of satellite images, and RM1,000,000 value of intellectual property. However, the estimated benefits are RM314,800,000 per 100 km^2. Among the potential customers include the ministries such as Ministry of Energy, Green Technology and Water, and several non-profit organizations like the World Wildlife Fund (WWF). In total, there were about 42 environmental-based non-profit organizations in Malaysia. Indirectly, the SMEs under the tourism industry that might be interested with the technology was also highlighted to be around 246 companies.

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