

# Satellite vs Drone: Mapping of Mangroves in Setiu Wetland, Malaysia

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Mangrove ecosystem is hard to penetrate: tangling hibiscus and high roots that get in the way, plus muddy substrate trapping the feet. However, the importance of this ecosystem is undeniable. Therefore, an easier and faster technique is needed to assess the mangrove. Satellite-based remote sensing becomes a choice, but as the mangrove located on tropical areas, cloud coverage is posing a trouble. Aerial photograph using the drone could be a promising ways to do the mangrove survey. This research will mapped mangrove in Setiu Wetland, Malaysia, using 3 different layers: manual ground 5x5m<sup>2</sup> plot inventory, aerial photograph using drone from 100m elevation, and SPOT satellite image. The result will be compared and combined to generate a detailed and comprehensive mangrove vegetation map.

Keywords: mangroves; drone; remote sensing