

GP-03 Individual Tree Crown Detection of Palmyrah Palm (*Borassus flabellifer*) using UAV imagery

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The Palmyrah palm (*Borassus flabellifer*) is a multipurpose species highly valued by local communities and often referred to as the “tree of life” due to the extensive use of its various parts. It is predominantly found in the dry zones of Sri Lanka, particularly in the Northern and Eastern regions. However, the current population of Palmyrah palms remains unknown, as manual counting is both labor-intensive and time-consuming. This study aimed to detect Palmyrah palm in selected areas of the Northern Province of Sri Lanka using unmanned aerial vehicle (UAV) imagery combined with machine learning techniques. The results demonstrated that high-resolution UAV imagery enables accurate detection of Palmyrah palm crowns in the region.