

FIT Timber Growth Fund

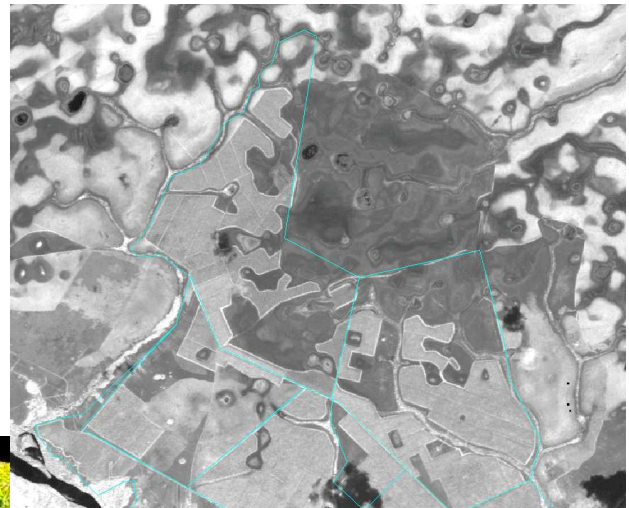
Within the frame of the FIT Timber Growth Fund Project the aim was to generate a classified, mosaicked dataset showing the health of Acacia mangium stands in the region of Boa Vista in Brazil based on satellite imagery. For future decision making tasks on when to harvest Acacia Mangium, satellite imagery should be investigated on applicability for the abovementioned species.

In order to obtain sufficient image resolution, RapidEye scenes of the area were ordered in tasking mode. The images feature 5 channels (RGB, 2 near infrared) at a ground sampling distance of 6.5 m.

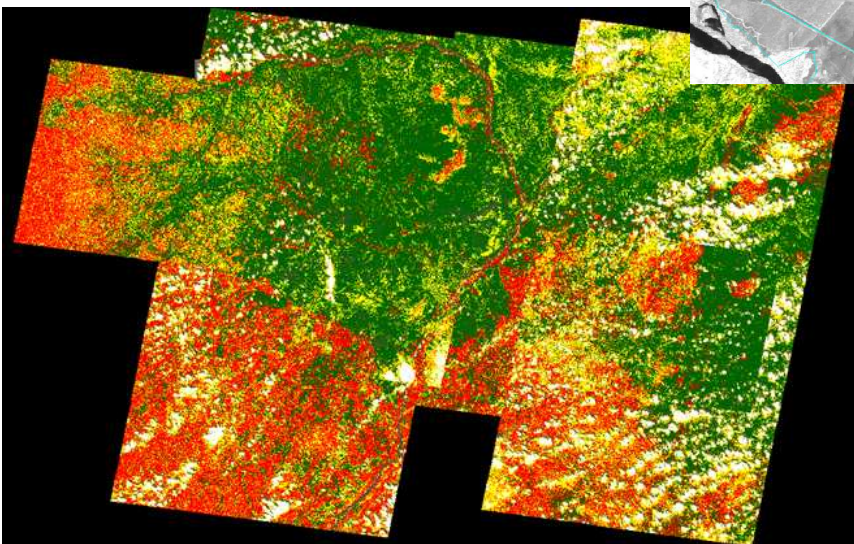
To improve the separability of the 3 vitality classes (low, middle, high), in addition to the 5 channels of RapidEye imagery, the NDVI was calculated for each scene and added to the orthoimages as a 6th channel. For the extraction of the vitality information, RapidEye satellite imagery was processed using image classification methods. As a result the level of vitality for each plantation of the investigated fazendas (tree grove farms) could be defined.



RapidEye RGB



NDVI: bright areas are of high vitality



Credits: www.mfb-geo.com

Classification result: green: low vitality; yellow: medium vitality; red: high vitality;



Solutions in Geographic Imaging

MFB-GeoConsulting GmbH
Eichholzstrasse 23
CH – 3254 MESSEN
contact@mfb-geo.com