AIR Worldwide Inc.

Crop Classifications for Insurance and risk assessment

Keywords

- Identification of Ground control points
- Geometric correction and rectification of satellite imagery
- Different Band combination for Crop/Vegetation classification
- Supervised and unsupervised classifications
- Augment Crop discrimination Performance

Results

- Crop classification and estimation.
- Convert raster to Vector classified data
- Crop types polygon data in Arc view shape files
- Accuracy Assessment of the classified maps.

For More information

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benefit from it

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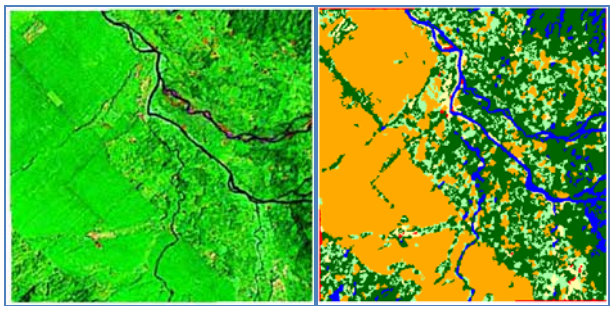
AIR Worldwide Inc is looking for a set of crop data inventories for SOPAC countries for their Insurance and Risk assessment Model by using a combination of statistical methods and data derived from remotely-sensed imagery and ancillary sources.

The Challenge

For crop detection and inventory, automatic classification, supervised classification and direct digitization methods are to be used. Due to perceived differences in the responses of different vegetation at infra-red range, it is possible to classify crops using classification algorithms. These results need to be verified through survey information for good performance in crop-type classification.

The Solution

Data collection has been made for various inputs like High/Low resolution satellite imageries, Topography maps etc from the client. Geometric correction and rectification done for satellite imagery to improve their positional accuracy. Identified the ground control points (GCP's) for image rectification and then check for accepted level of accuracy. Different band combinations for the study area have been used for different crop type's classification. Generated FCCs (False Color Composites) and identify training sites on FCC such as various crops types, forest classes, and plantation. For better understanding of the study, supervised and unsupervised classifications have been used and finally identified ground truth points for cross verification of the classified imageries for accuracy assessment.



Results

After Ground truth verification of the classified data and then converted raster to vector with all attribute details includes crop statistics, and classes etc. Crop types polygon data in Arc/View Shape file format.