

Mapping and Monitoring of Pastureland in parts of Sudan using Remote Sensing and GIS

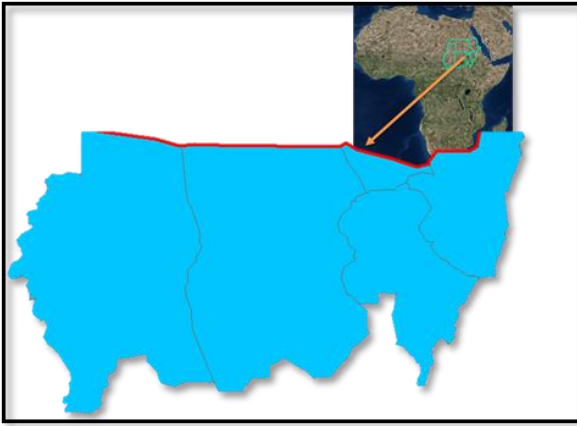


Fig.1 State Boundaries, Sudan

Business Need:

The Remote Sensing and Geographical Information System (GIS) methods combined with conventional pasture mapping provide a methodology to make a cost effective and reliable inventory of large areas. Providing accurate data about the quality and quantity of pastures and also about the amount of natural forage resources promotes effective use of pastures.

The business requirement was to classify the ortho-rectified multi-temporal satellite image to map the pastureland distributed in the area.

Inputs Used:

- RapidEye Satellite Images (Resolution-5m)
- Ortho-rectified Satellite Images
- Area Boundaries

Business Solution:

The satellite images were used to classify the pasture land with approach of hybrid classification methodology. The grouping of signatures was done by adopting overlay, swipe, and drag technique available through Raster Attribute and Raster recode option.

In the next step, these maps were sent for field validation. After field validation, necessary modification was done and final maps were created.

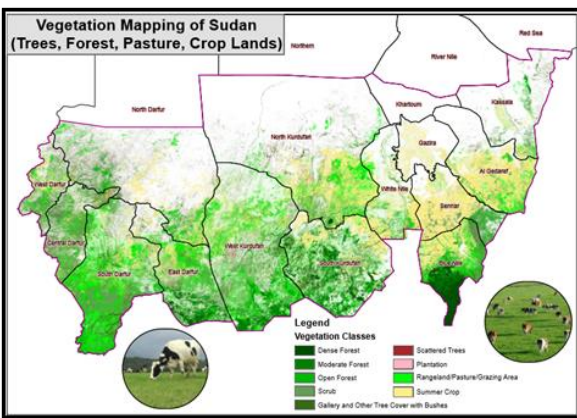


Fig2. Vegetation Maps

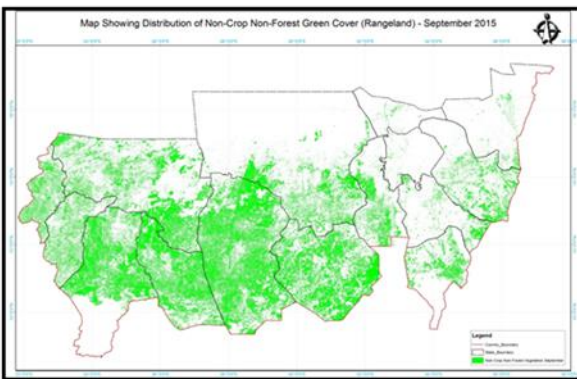
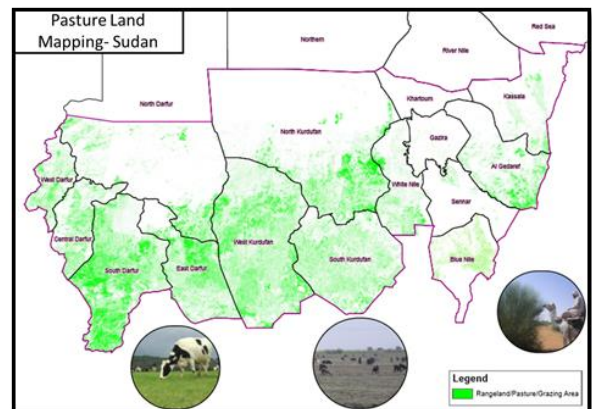


Fig3. Non Crop, Non-forest Green Cover



Project Shipment:

The following shipments were made-

- i) Pastureland Map
- ii) Project Report