



SPATIAL INFORMATION DAY 2010

Adelaide Convention Centre | FRIDAY 13 AUGUST 2010

Spatial Information Day 2010 Abstract

Title: Ground cover monitoring for Australia: Groundtruthing training in SA

Session: 10 – Environmental Management

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Abstract:

Introduction

The National Groundcover Project led by The Department of Agriculture, Fisheries and Forestry (DAFF) aims to deliver a national approach for monitoring ground cover that will inform landscape condition (soil exposure and pasture/crop condition). Ground cover is being monitored across Australia using high temporal resolution broadscale remote sensing imagery (Moderate Resolution Imaging Spectrometer imagery or MODIS).

The South Australian Department of Water Land and Biodiversity Conservation has been as strong supporter of the project, as its proposed outputs are particularly aligned to South Australia's Strategic Plan 2007 Soil Protection Target (T3.3). The Department is collaborating with Natural Resources Management boards and The Department for Environment and Heritage (DEH) across South Australia to allow for a participatory approach to ongoing product validation.

Currently, DAFF has funds to invest in this project until June 2013.

Objectives

At this beginning stage in the project, the objectives are to involve all jurisdictions and provide the opportunity for agencies and Natural Resources Management boards to participate in field work training. Field data collection and ongoing ground measurements of fractional cover will be used to validate and calibrate image products. The current focus sites for training are cropping areas and in the rangelands.

Methodology

The project will develop "fractional cover" maps based on the method developed by the CSIRO. Fractional cover refers to differentiation between the ground cover fractions of photosynthetically active and non-photosynthetically active vegetation and bare soil which is the key to improving estimates of erosion risk. Fractional cover products are derived from remote sensing imagery (MODIS imagery at 500 metre ground resolution) and will have national coverage.

A workshop held in November 2009 on 'Ground cover monitoring for Australia – a nationally coordinated approach to ground cover mapping' recommended the adoption of Queensland's field methodology for measuring fractional cover, as used in the Statewide Landcover and Trees Study (SLATS), to validate the maps. SLATS training will be held in cropping sites and rangelands sites in July 2010. Crop training sites are located near Jamestown whereas rangelands site are located north of Orroroo. Training will involve hands-on experience in site selection, site description, use of equipment and the method for measuring groundcover.

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The focus is on validating the ground cover product in areas with a low woody vegetation component or <15% foliage projective cover, under pastoralism in the rangelands.

Discussion

The groundcover project formally commences in July 2010 and as such, the Spatial Information Day presentation will provide 1) an overview of the project and its relevance for South Australia, 2) the SLATS groundtruthing methodology and 3) the outcomes of the SLATS training undertaken in July 2010.

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