

Matthew Hansen

Geographic Information Science Center of Excellence, South Dakota State University

Producing Composite Imagery And Forest Cover And Change Characterizations For The Humid Tropics - A Contribution To The MDGLS Activity

We propose to apply a method that automatically processes multi-resolution, multi-date imagery to create radiometrically normalized 5-year epochal Landsat data sets for the humid tropics. Such imagery would be a contribution to the Mid-Decadal Global Land Survey (MDGLS). The application of the method would build on activities within the USAID-funded Central African Regional Program for the Environment (CARPE), of which NASA is a partner. The method works generically on data from all Landsat sensors, allowing for the combined use of Landsat 5 and 7 data. The main deliverables would be cloud-free, radiometrically normalized Landsat mosaics for the humid tropical zone for 2005, along with prototype forest cover and change maps from 2000 to 2005. This activity will further the goals of the U.S. Global Change Research Program and NASA's Land Cover and Land Use Change program by developing improved methods for quantifying land cover change dynamics.