## Remote sensing for the audit and assurance of the carbon market

Keith Cunningham[†];
[†] Scenarios Network for Arctic Planning, USA
Leading author: kwcunningham@alaska.edu

The United Nations REDD (Reducing Emissions from Deforestation and Forest Degradation) program has made forest preservation a priority. Forests sequester carbon and have made carbon value a new global currency. Large money transfers between nations for forest preservation are occurring and voluntary carbon units (VCU) are already being traded. The 2011 market is US$30 billion and by 2020 it will include an estimated US$100 billion in UN-administered funding. Driving this market will be the voluntary trading of carbon as a commodity. Several academic and non-governmental organizations (NGO) are now monitoring deforestation and forest degradation using satellite remote sensing. Imagery archives in Europe and the United States are publicly available and are being utilized. These archives have been used to establish baseline forest measurements necessary to measure and quantify deforestation. Quantifiable forest measurements allow experts to understand not only deforestation and forest degradation, but the conservation performance of those Nations participating in the UN-administered REDD funding. This performance measurement is key to assuring the transparent function of the VCU market. Independent audits are standard accounting practice in the operation of global industries, and third-party assurance will be necessary for the healthy function of global financial markets needed for the functioning of the REDD program. This paper will review the state of remote sensing for REDD and its role in the third-party audit and assurance process to validate the transparency of the VCU market.