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Forest area derivation from Landsat data

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Abstract

Climate changes have been related to human activity as well as deforestation. Their forests continue to degrade for firewood collection and food production. Remote sensing is the art and science of obtaining information about a logging area without being in direct physical contact with the Mongolian vast territory. Define forest cover changes of the community area use forest index (FI) with the Landsat satellite data. For the estimation of forest biomass, a regression model linking Forest index (FI), to forest biomass in the regions where precipitation is the predominant variable for vegetation growth season was developed.

FI value greater than or equal 3.5 was labeled as forest, while a pixel with FI value less than 3.5 was labeled as non-forest. Accuracy assessments on the two Landsat scenes indicates that forest/non-forest maps derived using the FI have high accuracy. The Landsat data and the described methods are well suited for forest change detection between consecutive years.

Keywords: Sustainable management, forest Index, Remote sensing, Change detection

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