

Cloud screen method comparison between pixel-based method and segment-based method using MODIS data

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In this research, we proposed the cloud removal process using time series MOD13Q1 data. In the MOD13Q1 provided by USGS include Vegetation Index (EVI and NDVI) not only red and near-infrared but also blue and mid-infrared regions. Blue and mid-infrared bands were 500m resolution but resampled to 250m resolution. MOD13Q1 has 250m resolution and used 16th composite to remove cloud. However, there are too many clouds in image, so in order to investigate land cover and land cover change, the clouds has to be removed. But it is difficult to detect using every pixel because of dim boundary between the cloud and land. In this research, we segment each image in order to distinguish a cloud area and land object. A segment parameter was decided that a terrestrial big object such as river is divided into some segments. The data for segment compared between the original data and gamma corrected (coefficient 3) data. The segmented image was replaced pixel data with region information. The area that has unclear border with cloud and land, will be each parts measure of central tendency.

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