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Satellite technologies for climate change mitigation in forest ecological monitoring

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The one of Earth Observing System (EOS) program component is the investigation of influence of Earth vegetation on large-scale global processes. The most applicable product from satellite observation is Normalized Difference Vegetation Index that is used in observation on vegetation. The Normalized Difference Vegetation Index (NDVI) is an index of plant "greenness" or photosynthetic activity, and is one of the most commonly used vegetation indices. Vegetation indices are based on the observation that different surfaces reflect different types of light differently. Photosynthetically active vegetation, in particular, absorbs most of the red light that hits it while reflecting much of the near infrared light. Vegetation that is dead or stressed reflects more red-light and less near infrared light. Vegetation index is important ecosystem variable widely used in variety of bio-geophysical applications. The use of NDVI, GVF and VTI in forest ecological monitoring in Georgia is reviewed in presented article.

Biography

Marika Tatishvili is Head of Weather Forecasting, Natural and Technogenic Modeling Division of Institute of Hydrometeorology of Georgian Technical University. She is author of more than 76 scientific articles and three monographs. She is member of University scientific board.

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