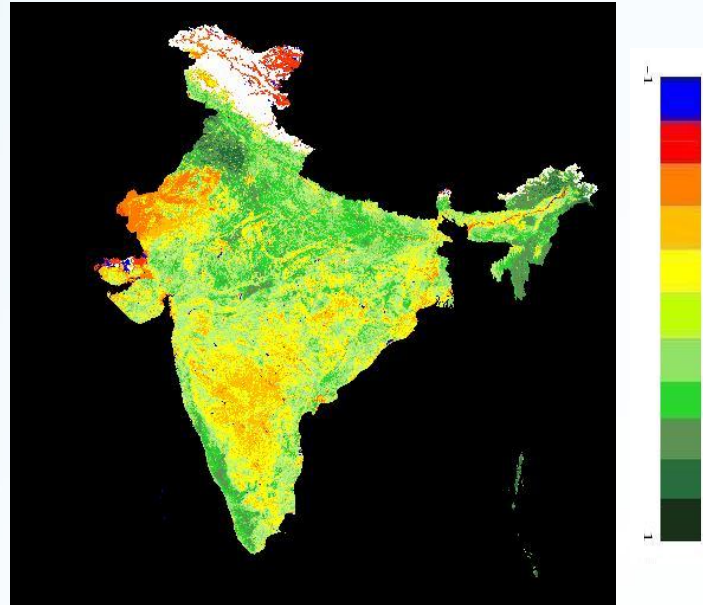


Full India 8-Day NDVI composites from Oceansat-3 :OCM-LAC

Normalized difference vegetation index (NDVI) is widely used vegetation index that quantifies the presence and vigor of vegetation in a particular area. NDVI is a powerful tool for assessing and monitoring vegetation health, which has wide-ranging applications in environmental, agricultural sciences, climate studies, land use planning and water resource management.

Indian imaging satellite EOS-06 was launched on 26th November 2022. It consists of four payloads viz. Ocean Color Monitor (OCM3), Sea Surface Temperature Monitor (SSTM), Ku-band Scatter meter and ARGOS. OCM3 has 13 spectral bands in VNIR spectral regions of electromagnetic spectrum (400 - 1010nm) with swath of 1440 km from 737 km altitude as listed in table1. OCM3 operates in two modes a) Local area coverage (LAC) to provide 360m of spatial resolution with temporal resolution of 2days and b) Global area coverage (GAC) to cover the whole global in low resolution (1KM) with high temporal resolution (4days). OCM3 spectral bands are originally designed for ocean color retrieval applications. Due to high SNR and the ability to measure spectral reflectance with narrow bandwidth, the data collected by OCM3 is also useful for the generation of land geophysical products.

Data from 8 days (Four Indian coverages) are used to generate one NDVI composite. OCM3 NDVI is validated with MODIS NDVI composites MOD13A1 and Sentinel-3 OLCI NDVI products and the amount of agreement is better than 90%. These 8-day Composite products since Jun-2023 are now available on BHOONIDHI for download as a single tile.



NDVI composite for the period : 04 Feb2024 to 11 Feb2024

Format, Projection , Datum	Geo-Tiff, GCS, WGS-84
Spatial Resolution	360m
Radiometric Correction	Rayleigh corrected Top of Atmosphere (TOA)
Geometric Correction Level	Terrain corrected
Scale factor for NDVI	0.005; NDVI-Float = Digital Value* 0.005
Usable DN range	0 – 200
Masked Labels	250(Clouds and cloud shadows), 240 (snow), 255 (Image background)

Web links:

bhoonidhi.nrsc.gov.in
bhuvan.nrsc.gov.in

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