

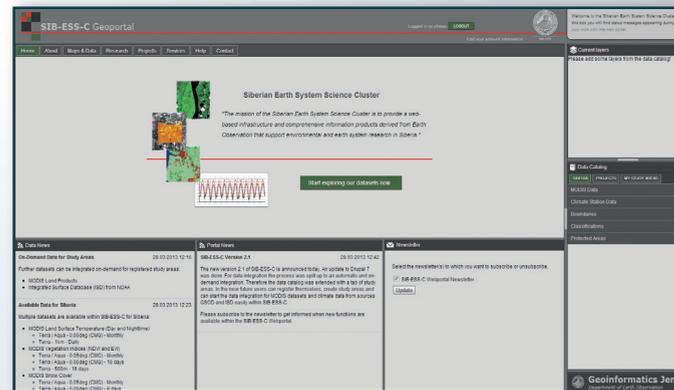
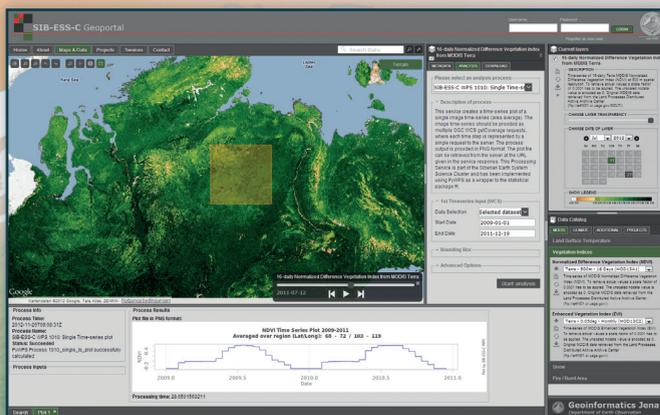
- » Operational Time-Series Data Integration, Visualization and Analysis
- » Data Web Services provided with standards compliant to the Open Geospatial Consortium (OGC)
- » Web-based Data Visualization
- » Online Time-Series Analysis with R backend

User-driven Data Integration

Users can delineate study areas for data integration and analysis. Tools for accessing remote sensing MODIS data and in-situ climate data are provided.

Go to the SIB-ESS-C webportal and try it for your area of interest:

1. Register as a user and login
2. Create a new study area (Data Catalog)
3. Add a new task for data integration based on selected dataset
4. Get an email when dataset is ready
5. Add data to the map for visualization and try the time-series analysis tools



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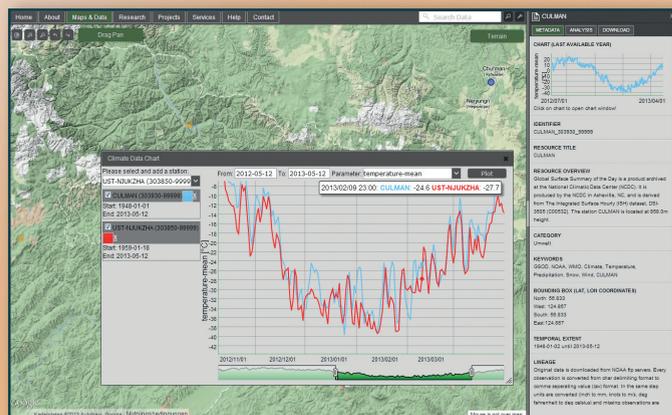


About

The Siberian Earth System Science Cluster (SIB-ESS-C) is a spatial data infrastructure to facilitate Earth System Science in Siberia and consists of operational tools for multi-source data access and time-series analysis. Therefore data from remote sensing satellites, climate data from meteorological stations, and outcomes of research projects are available. The system comprises interoperable interfaces for data visualization, access, and analysis. A main objective is to provide a wide variety of operational information products free of charge along with a user-friendly web portal for time-series analysis and monitoring.

Available Data

- » Long-term satellite land surface temperature and vegetation dynamics time-series (MODIS land products)
- » Daily / Hourly climate data from meteorological stations from 1937 until now.
- » Biomass, Land Cover and Forest Species maps for Central Siberia
- » Forest Cover (Change) Maps



Data from different meteorological stations can be plotted and compared in the web portal.

Use Case: ZAPÁS

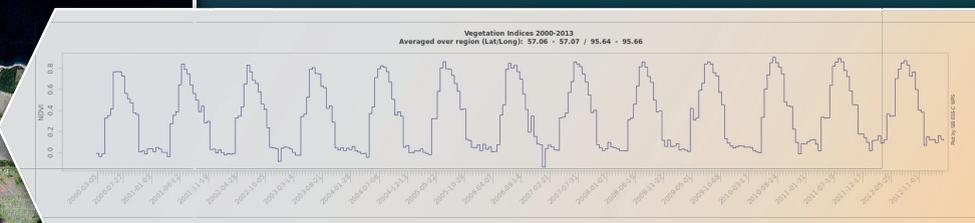
Siberian Insights on Forest Dynamics and Climate Change

In times of climate change, the forests of Central Siberia act as valuable carbon sinks. The ZAPÁS project brings Russian and European partners together, aiming to enhance the procedures and products in the field of Earth observation for forest resource assessment and monitoring.

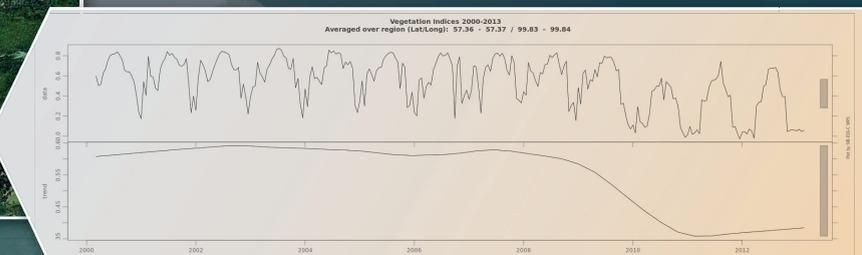
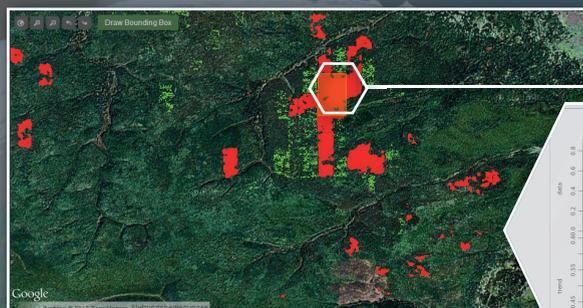


Maps on vegetation dynamics, land cover, forest species and biomass improve the knowledge on Boreal forest ecology and the tracking and accounting of forest carbon cycling.

Example Reforestation Monitoring



Radar-based high resolution reforestation maps and optical time series of vegetation dynamics build confidence on forest regeneration monitoring.



Example Forest Disturbance Monitoring

Deforestation patterns detected by biomass loss between 2007 and 2010 are confirmed by changing phenological cycling in MODIS NDVI time series. MODIS time series analyses help to detect deforestation events in remote areas of Siberia.