



Advancing Environmental Conservation

with

Precision Geospatial Data

Monitor Ecosystems

Manage Resources

Ensure Sustainability

Whether protecting endangered species, managing water resources, or monitoring land use changes, our suite of geospatial products provides the insights needed to make informed decisions. Our solutions enable you to monitor environmental trends, assess ecosystem health, and implement effective practices that minimise human impact.

Our Geospatial **Solutions**

National Vegetation Cover (2018)

This dataset identifies natural vegetation types across regions, enabling better understanding of ecosystem biodiversity. Its core purpose is monitoring changes over time.

FHI and HAND

Our Flood Hazard Index and Height Above Nearest Drainage products are invaluable for assessing areas vulnerable to flooding. Monitor and protect it by understanding the flood risk involved.

Topographic Wetness Index (TWI)

The TWI quantifies potential water accumulation in a landscape, highlighting areas that are more likely to be wet or have stagnant water. Vital data for understanding soil moisture levels.

Soil Capability and Potential

Essential in maintaining healthy ecosystems, these products assess soil fertility, moisture retention, and capability to support vegetation.

Slope and Terrain Analysis (SLOPE)

Identify vulnerable areas with our slope data. It is key for understanding soil erosion, landslide risks, and terrain stability. Soil stabilisation, erosion control, and land management made easy!

ALOS DSM and SRTM DEMs

Elevation data from these models offer insights into andform characteristics, helping assess erosion risks, drainage patterns, and the suitability of areas for conservation or restoration activities.

Rivers and Water Bodies

These products help monitor and manage freshwater resources by identifying the distance to rivers, streams, and natural or artificial water bodies. Essential for protecting aquatic ecosystems.

SAGA Derivatives

These SAGA-based products are perfect for environmental monitoring. They offer a range of analyses related to terrain, vegetation, and hydrology that can help predict changes.



Gains and **Benefits**

Monitoring Ecosystem Health

We provide the data necessary to track changes in ecosystems and take targeted actions that protect. By using vegetation cover, soil quality, and flood risk data, you can identify areas for intervention.

Improved Land Management

Geospatial data enables land managers to plan and implement sustainable practices. Whether for reforestation or restoration, our data ensures that projects are based on actionable information.

Protection of Water Resources

Flood hazard, drainage, and water body data helps protect vital water resources. Our datasets support sustainable water management practices, particularly in areas prone to flooding or drought.



Habitat and Species Protection

By understanding land cover, slope, and hydrological characteristics, you can protect habitats, monitor migration corridors, and implement conservation programs that safeguard biodiversity in the long term.

Sustainable Resource Use

Geospatial analysis supports the management of natural resources. We understand the importance of ensuring natural habitats are preserved. This includes monitoring changes in land use and even compliance with conservation policies.

About the **Team**

The GeoSmart team combines academic rigor with industry-leading technology to address complex geospatial challenges. Their expertise lies in Geographical Information Systems and Remote Sensing, and they specialise in terrain analysis.

Uses and **Applications**

Biodiversity Monitoring

Track changes in vegetation cover, habitat quality, and species distribution over time, enabling better conservation planning and species protection.

Watershed Management

Monitor and manage watersheds, protect aquatic ecosystems, and assess flood risk to design effective floodplain management and restoration.

Soil and Land Restoration

Identify areas vulnerable to erosion, land degradation, and desertification. Use data to guide land restoration and improve fertility of soils.

Forest and Wetland Conservation

Monitor forest cover and wetland ecosystems to prevent degradation. Analyse soil, vegetation, and flood risks to support preservation and restoration.

Climate Change Adaptation

Assess the impacts of climate change on resources. Use data to identify areas at risk due to shifting rainfall, drought, or flooding and plan adaptation.

Take Action

Empower your environmental conservation and natural resource management initiatives with our advanced geospatial data. Whether you are working to preserve biodiversity, manage water resources, or monitor land degradation, our solutions provide the insights you need for smarter, more sustainable decisions.

**Let us help you protect the planet,
one data point at a time.**

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