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GEOSPATIAL WORLD FORUM

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Spacecraft to solutions: Designing EO with Purpose and Partnership

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About Us



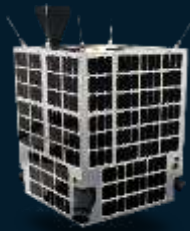
WNISAT-1



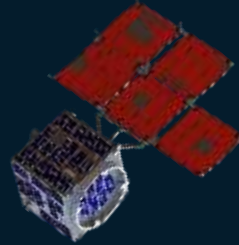
Hodoyoshi-1



WNISAT-1R



GRUS-1A



RAPIS-1



GRUS-1B,C,D,E



PYXIS



GRUS-3α



GRUS-3A-G



FROM UPSTREAM



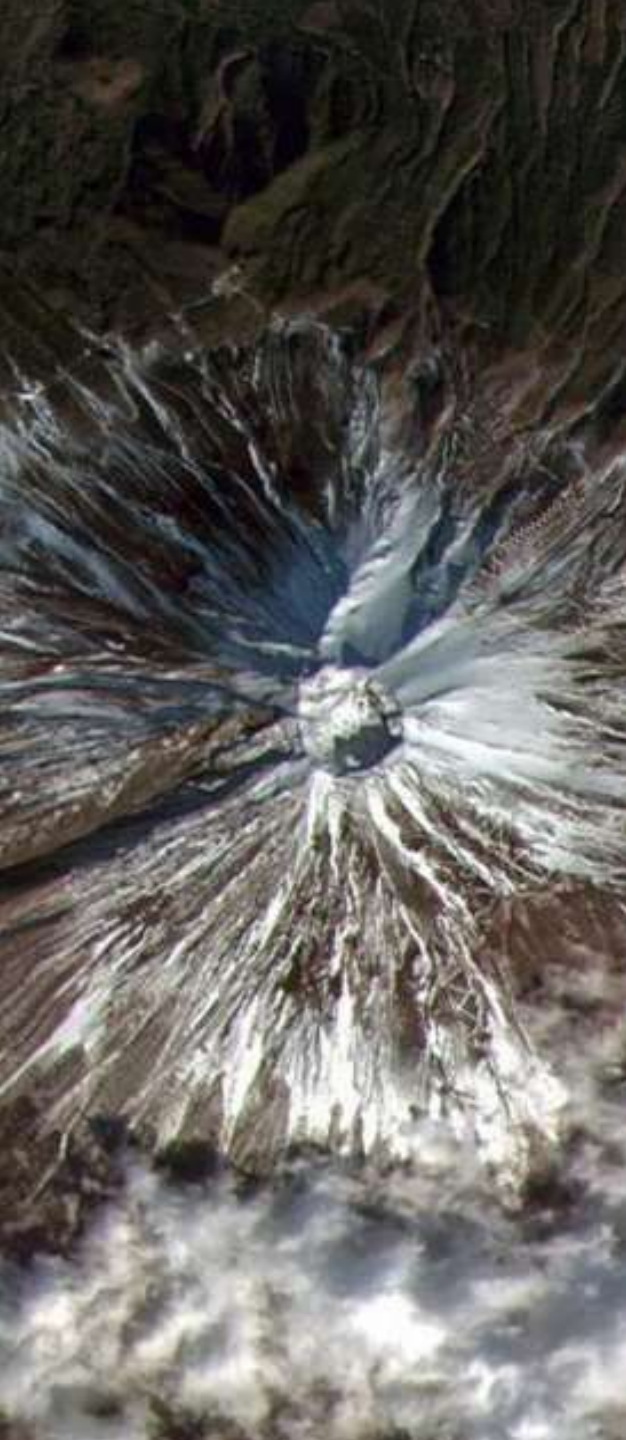
One-stop service for Satellite Projects

TO MIDSTREAM



Earth Observation Platform & Solutions

AND DOWNSTREAM





**What's the value of a satellite image
if it doesn't translate to impact?**

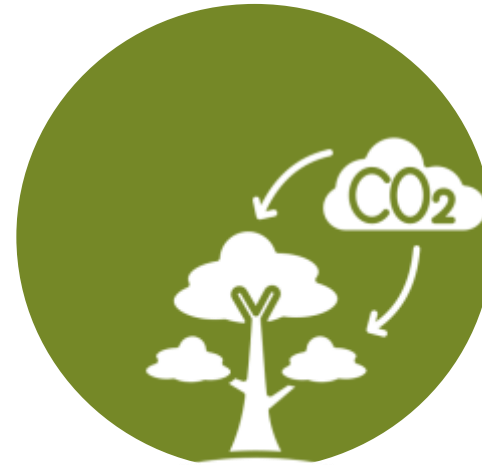
Earth Observation Solutions Co-Development



1 Marine & Coastal
Use Case



2 Agriculture
Use Case



3 Forestry
Use Case



4 Disaster
Use Case

Marine & Coastal Use Case

Small Island Nation States coastal monitoring and rehabilitation in Maldives

Collaboration with Maldives Space Research Organization (MSRO)

Supported by Maldives National University & Noonu Atoll Council



Marine & Coastal Use Case

Small Island Nation States coastal monitoring and rehabilitation in Maldives



Challenge

Accelerating coastal erosion and land use change, with limited data to inform local planning



Solution

Land use and land cover (LULC) maps and coastal monitoring tools using GRUS-1 data



Impact

Enhanced local capacity for coastal zone management and planning

Coastal Monitoring and Rehabilitation

Providing marine and coastal monitoring using satellite imagery for small island nations, contributing to national land surveillance and ecosystem preservation

Visual Imagery

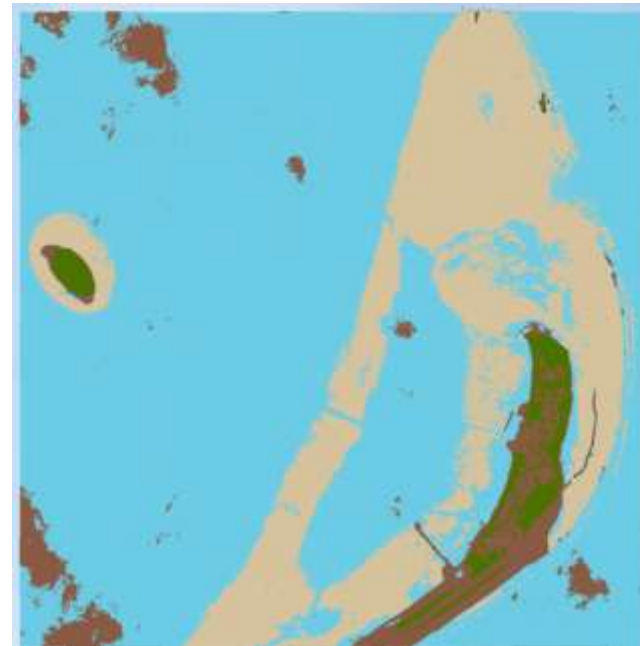


2024 February 18



2024 July 07

LULC Map



2024 February 18



2024 July 07

water cover coastal builtup/bare soil vegetation

Time Period

Jan-2024



Jan-2024

Jan-2025

Map Layers

Land Use

Land use planning and zoning data

Marine Chlorophyll

Marine chlorophyll concentration data

Vegetation Health

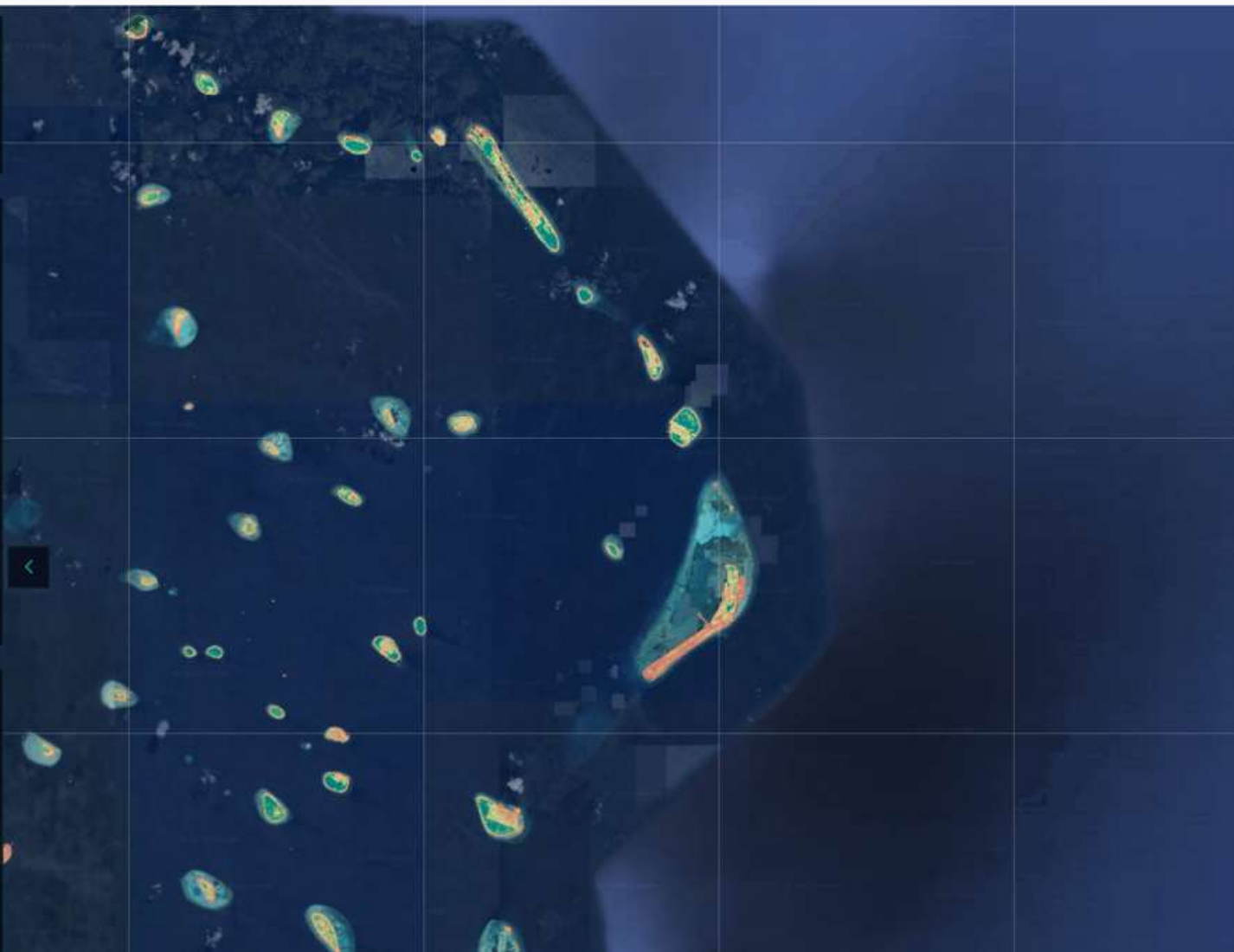
Normalized Difference Vegetation Index (NDVI) data

Water Turbidity

Normalized Difference Turbidity Index (NDTI) data

Analytics

Layer Values Over Time



Layers

- Ihthisaas
- Protected Areas
- Reef
- Land Use Plans
- MAI - Marine Algae/C...
- NDTI - Water Turbidity
- NDVI - Vegetation Health

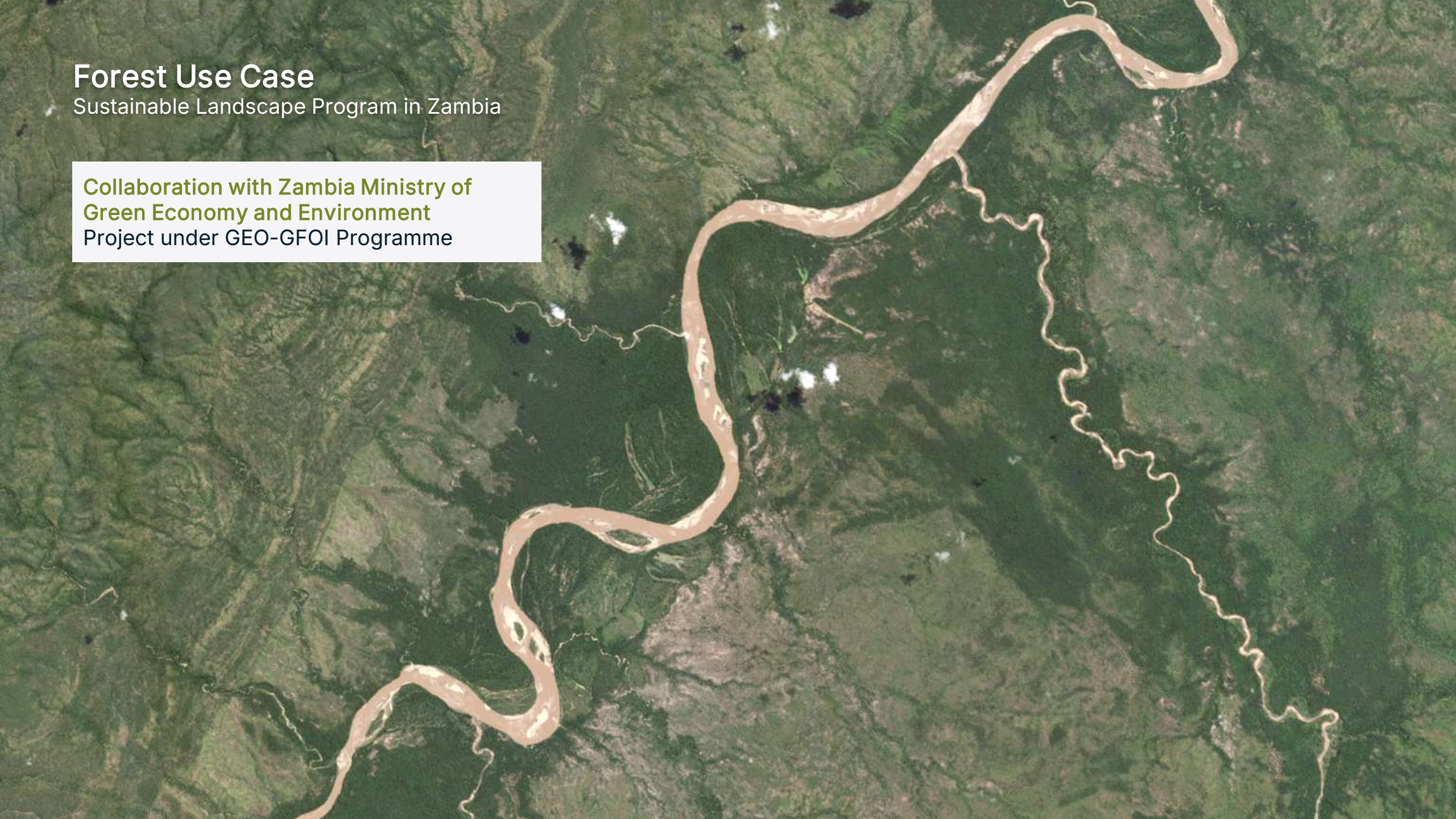
COLOR BASED ON ndvi

- 0.00 - 0.10
- 0.10 - 0.14
- 0.14 - 0.18
- 0.18 - 0.21
- 0.21 - 0.24
- 0.24 - 0.51

Forest Use Case

Sustainable Landscape Program in Zambia

Collaboration with Zambia Ministry of
Green Economy and Environment
Project under GEO-GFOI Programme



Forest Use Case

Sustainable Landscape Program in Zambia



Challenge

Lack of high-resolution forest cover and land use data to support climate-smart land management



Solution

Used satellite imagery to support land use and land cover classification and capacity-building activities

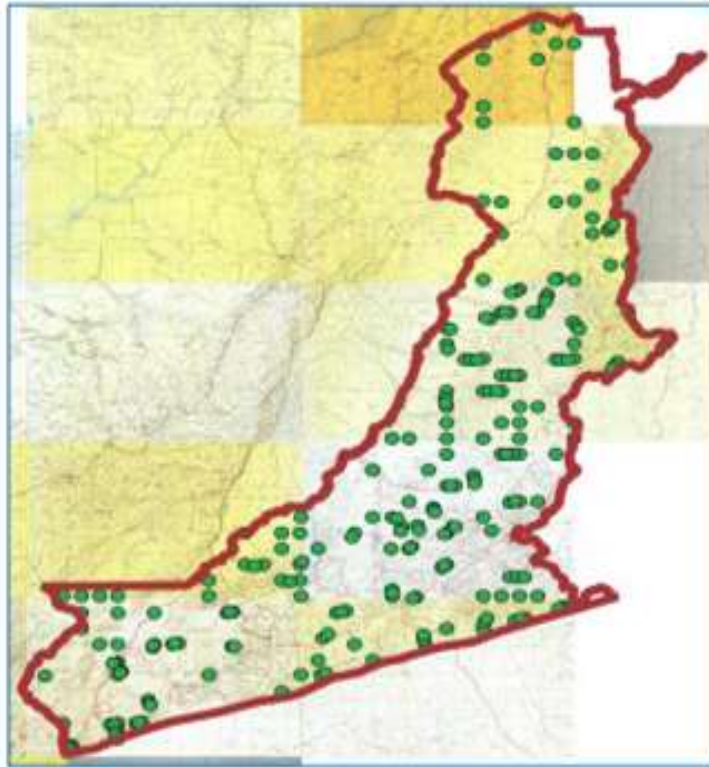
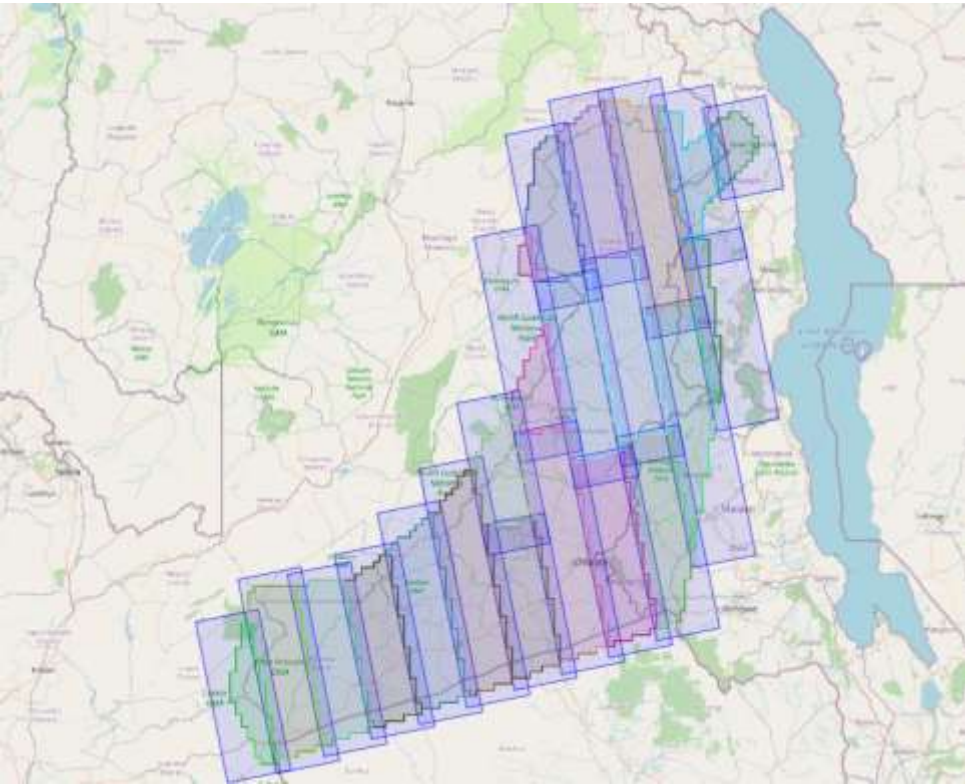


Impact

Contribute to national forest monitoring and sustainable land management efforts

Sustainable Landscape Program Project

Demonstrating the feasibility of using GRUS-1 imagery for forest monitoring, land-use classification, and early warning for deforestation hotspots in the Eastern Province of Zambia.



Agriculture Use Case

National agricultural crop mapping in Mongolia

Collaboration with Monmap

Supported by Mongolia Ministry of Food,
Agriculture and Light Industry



Agriculture Use Case

National agricultural crop mapping in Mongolia



Challenge

Lack of consistent, up-to-date crop type data for effective agricultural planning



Solution

Supported the development of a nationwide crop type map using GRUS-1



Impact

Enabled national-level agricultural statistics, improved seasonal monitoring

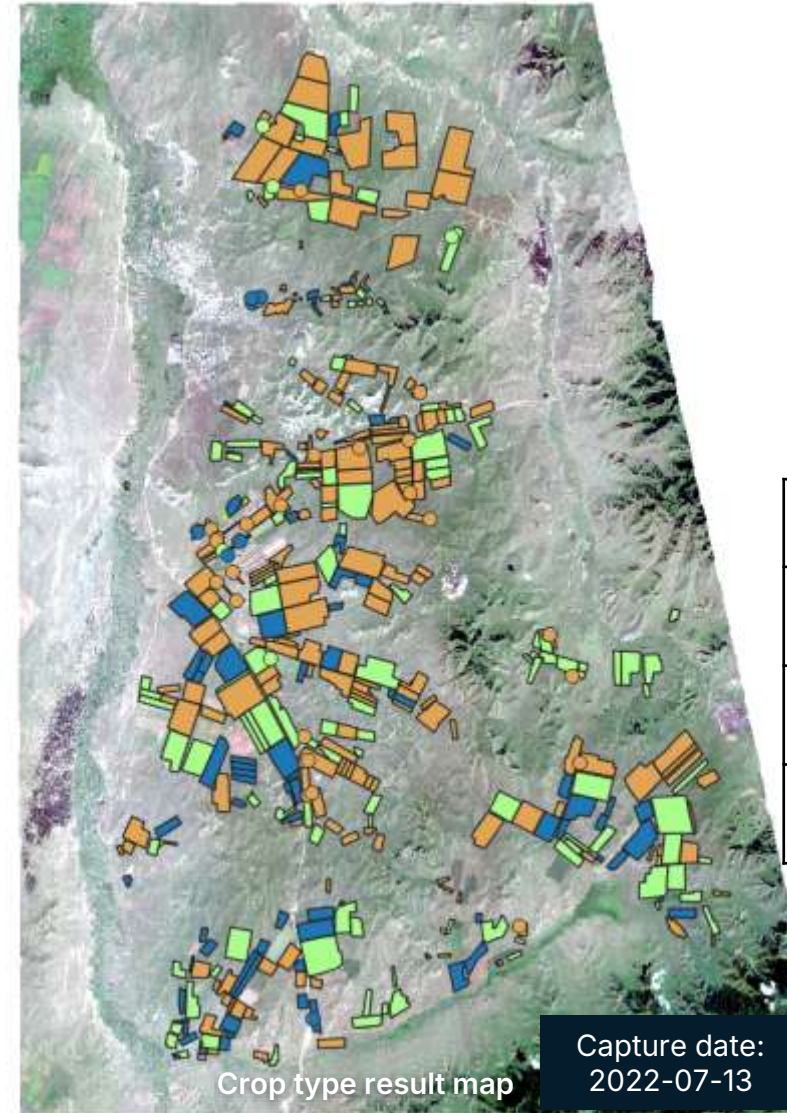
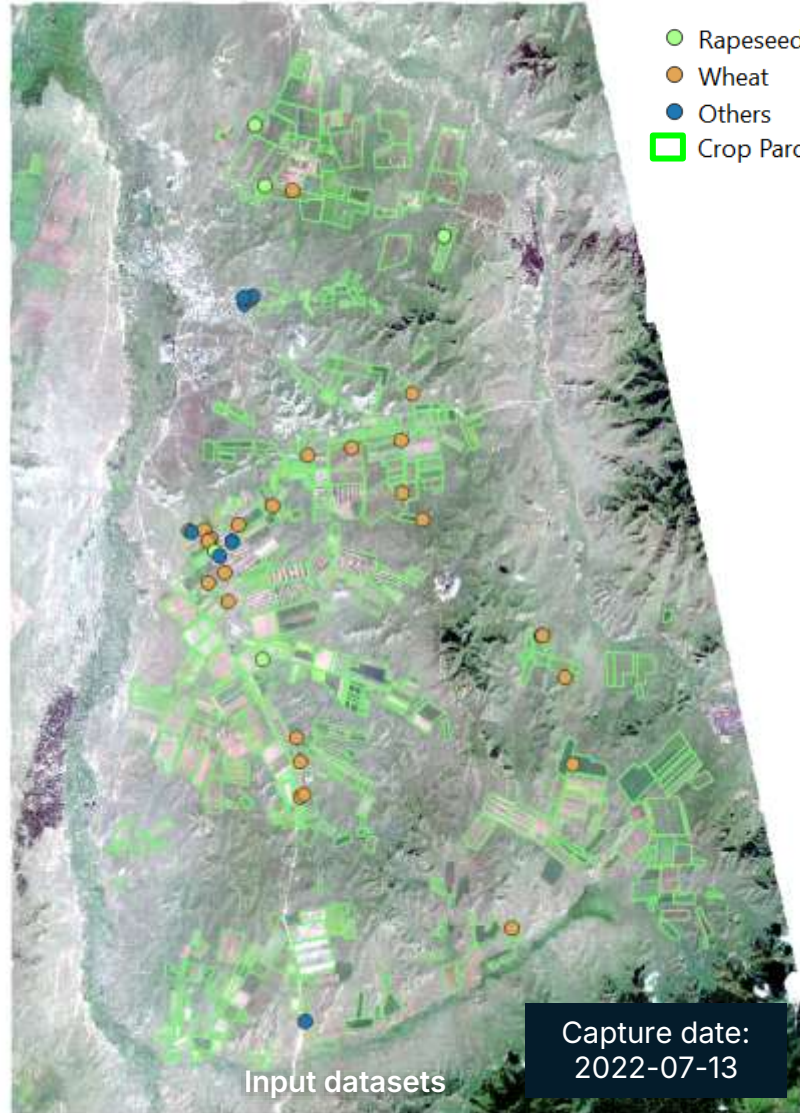
Country-level crop type mapping

National -scale mapping to enable national-level agricultural statistics, improved seasonal monitoring, and informed evidence-based decision-making in agricultural policy.



Country-level crop type mapping

National -scale mapping to enable national-level agricultural statistics, improved seasonal monitoring, and informed evidence-based decision-making in agricultural policy.



Crop Class	Area 2 (Ha)
Rapeseed	6, 111.944
Wheat	6, 698.288
Others	9, 559.736

Open Data for Disaster & Humanitarian Use Case

Earthquake Response in Noto, Japan / Collaboration with local governments, academia, and general public



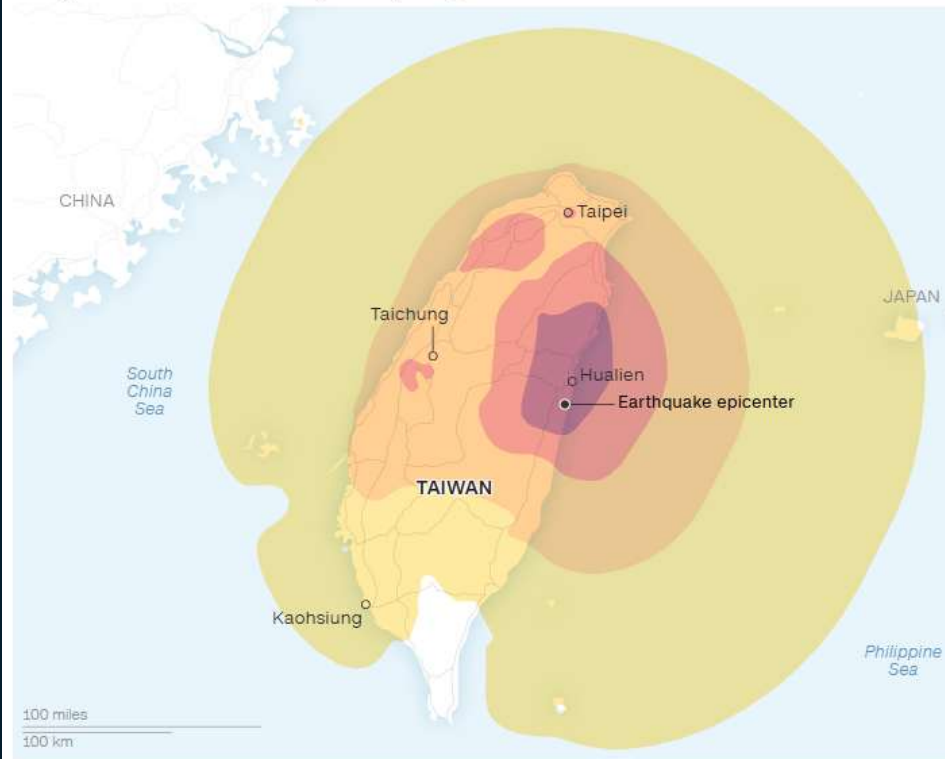
Open Data for Disaster & Humanitarian Use Case

Earthquake Response in Taiwan / Collaboration with Taiwan Space Agency (TASA)

7.4 magnitude earthquake hits Taiwan

The earthquake hit Hualien County at 7:58 a.m. local time on Wednesday.

Shake intensity



Data as of April 3, 2024 at 6 a.m. ET

Source: United States Geological Survey
Graphic: Lou Robinson, CNN



Open Data for Disaster & Humanitarian Use Case

Wildfire assessment in Medhoo, Maldives / Collaboration with Maldives Space Research Organization (MSRO)



Fire at Meedhoo Eco Garden. -- Photo: Eaman



Capture date: 2025 January 16



Capture date: 2025 March 27



Across projects, what made the difference was **not just the data—but the co-design process**, listening closely to the problem, and building with local context in mind.



Let's build the next generation of EO solutions **together.**



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Thank you.