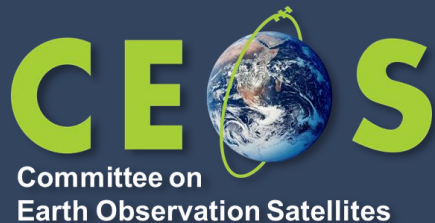


WGISS-61 Presentation Template



Katerina Kikaki, HSC
Agenda Item 2.7.2
WGISS-61 and WGDisaster-25
16-20 March, 2026
Dehradun, India

Mission

Support the sustainable development of the Greek Space ecosystem and the creation of value for society, from fundamental research to service development.

The Hellenic Space Center, operating under the Ministry of Digital Governance, serves as the National Space Agency of Greece and acts as a link between the government, the private sector, the scientific community, and international space organizations such as the European Space Agency (ESA) and NASA.

The Greek National Satellite Space Project

Prof. Konstantinos Karantzas (SG/MoDG)
Dimitris Bliziotis (HSC)



Earth Observation Pillar

- High-res **Thermal** Sats for civil protection, natural disasters, security & dual use apps



Axis 1.1
THERMAL SPACE
SEGMENT



- High-res **SAR** Sats for civil protection, natural disasters, security & dual use apps

Axis 1.2
SAR SPACE
SEGMENT

Axis 2
CONSTELLATION
OF SATELLITES



- **Multiple sensors** (Multispectral-Hyperspectral VNIR-SWIR, GNSS R, AIS VDES, IoT)

Axis 3
GOVERNMENTAL
HUB



- **GR added value-services** tailored to national needs.



Governmental services for public & private entities

100% GR involvement



Agriculture Monitoring Service

- Crop Type Mapping
- Soil Moisture Analysis
- Crop growth monitoring



Forest Monitoring Service

- Forest Type and Forest Fuel Maps
- Forest & Natura Areas Monitoring



Water Monitoring Service

- Water Quantity Monitoring
- Water Quality Monitoring
- Maritime Surveillance



Safety and Security Service

- Flood Risk Assessment and Mapping
- Wildfire Analysis and Surveillance
- Target Identification



Land Monitoring Service

- LU & LC Mapping
- Deformation Monitoring
- Urban Analytics Services

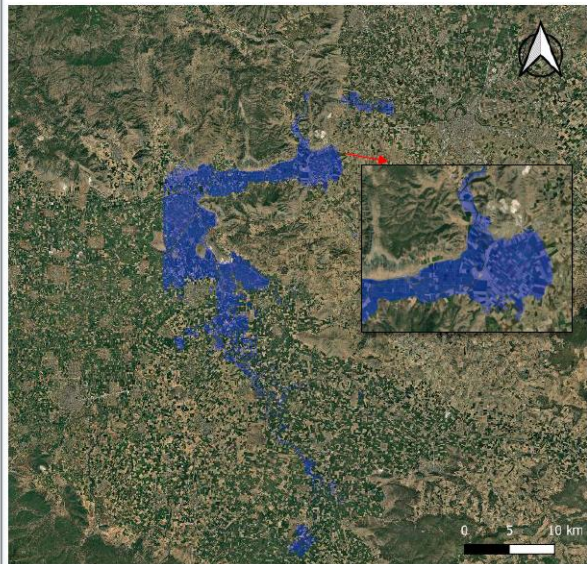


Hosted within DAEDALUS
supercomputer, with a total
power of 89 PetaFlops

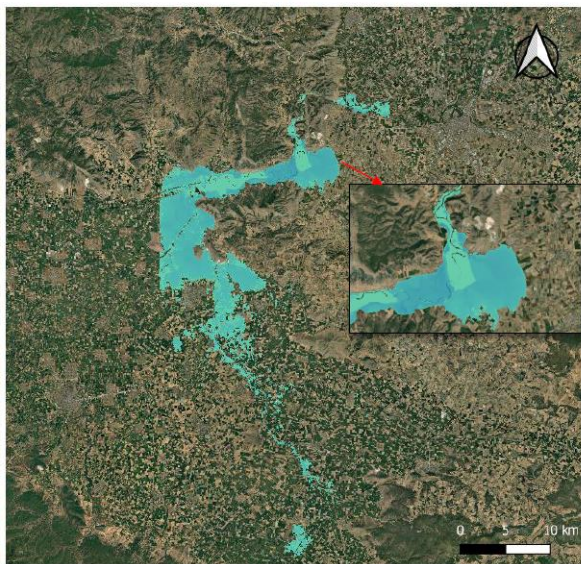
SW01-01/02 - Flood Delineation

MAP [AOI: PALAMAS | *Flood Delineation and Depth Map* | Flood event time: 05/09/23]

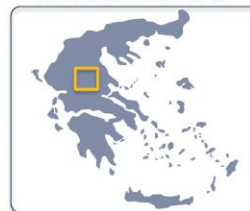
Flood Delineation Map



Flood Depth Map



LOCATION MAP



LEGEND

Flood Delineation

■ Flooded area

Flood Depth Estimation (m)

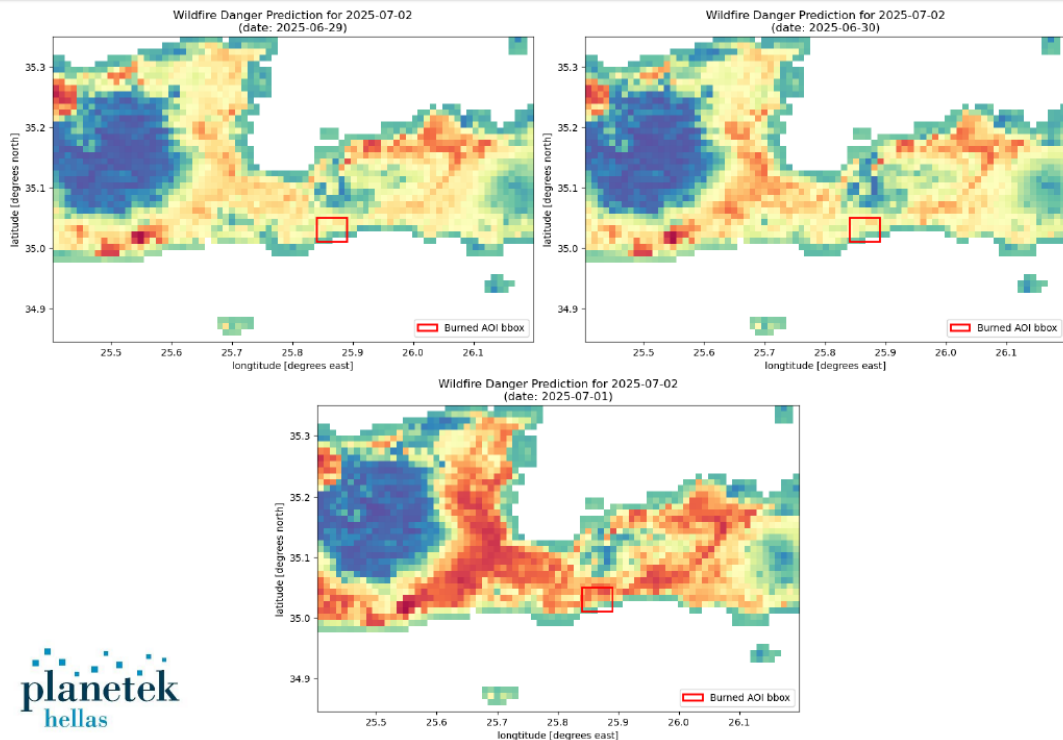
■ 0.10 - 0.20	■ 1.00 - 2.00
■ 0.20 - 0.30	■ 2.00 - 3.00
■ 0.30 - 0.40	■ 3.00 - 4.00
■ 0.40 - 0.50	■ 4.00 - 6.00
■ 0.50 - 1.00	■ >6.00

Basemap Source:

ESRI Satellite (ArcGIS/World_Imagery)

The presentive Flood Maps are created by PlanetScope (optical) images, where the post-event image is dated at 10/09/23 and the pre-event image 03/08/23

SW02-01 - Wildfire Danger Forecasting MAP [Lasithi (Crete) | SS-M02-01 | 2025-07-02]



planetek
hellas

LOCATION MAP



LEGEND

Burned AOI (sourced from EFFIS)

Burned AOI bbox

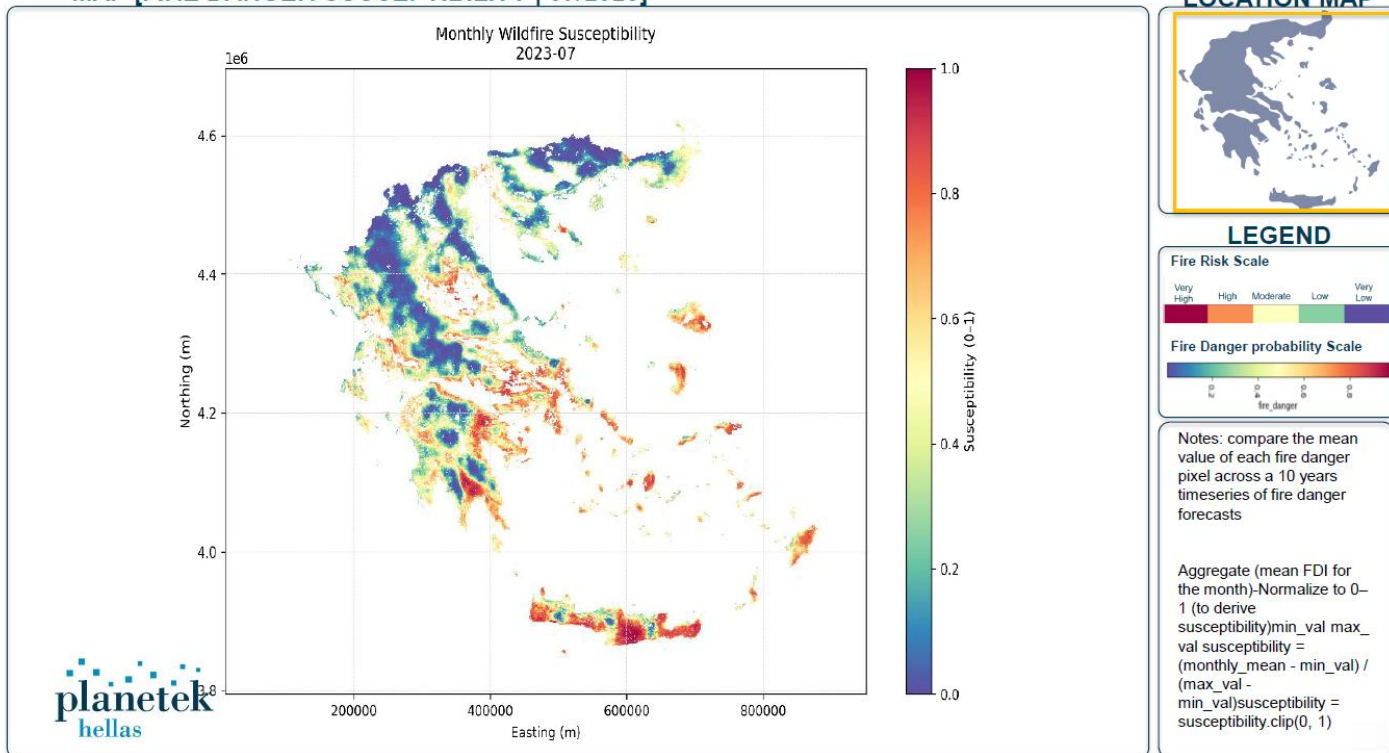
Ignition point location
(lat/lon in EPSG:4326):
25.86°, 35.03°

Fire Danger probability Scale



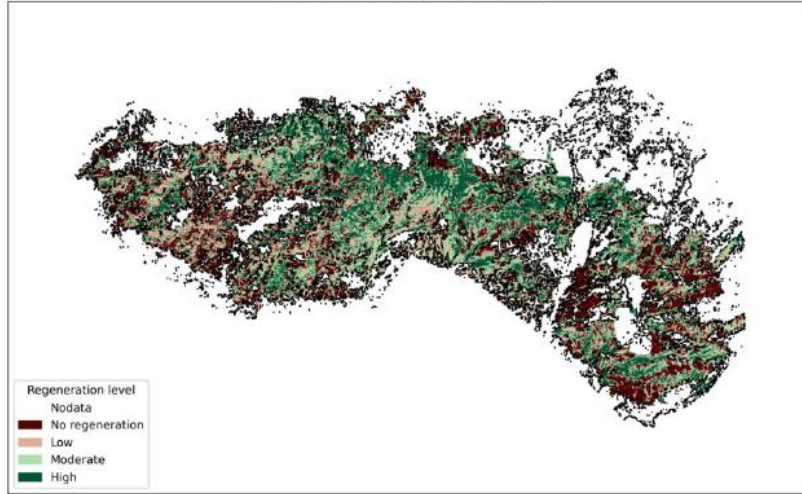
SW02-05 - Fire Risk

MAP [FIRE DANGER SUSCEPTIBILITY | 07/2023]

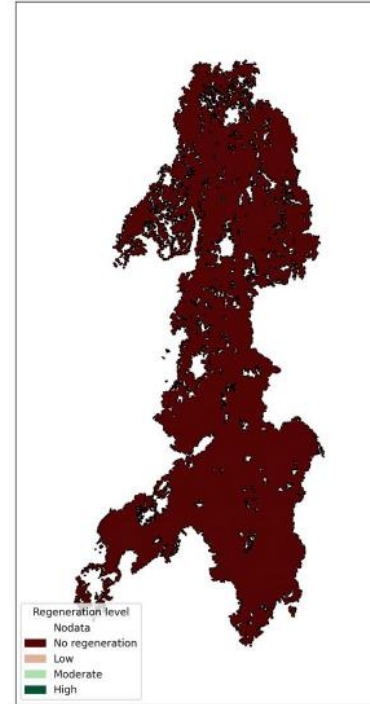


Regeneration and Restoration Monitoring

Wildfire in Ilia, Peloponnese (2021)



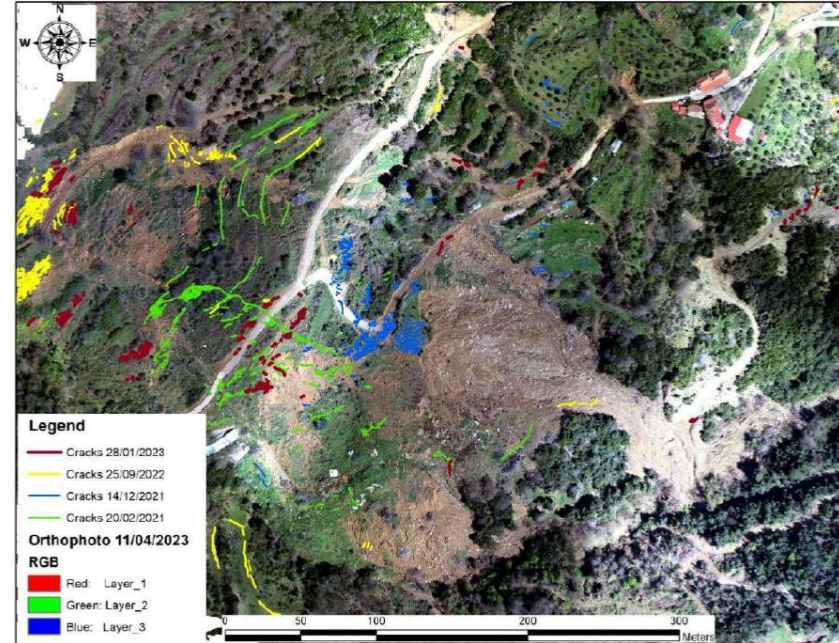
Wildfire in Varnavas, Attica (2024)



Case studies

➤ Kerasovo landslide

- December 12th, 2021.
- 380m length and 380m width
- intense rainfall
- Mapping and monitoring 2021-now
- Repetitive UAV and GNSS campaigns
- Landslide is still active
- Surface changes: 0.7 to 1.8 m



Validation with Corner Reflectors



Thank you!!