

Giuseppe Baldassarre

Environmental Engineer (Ph.D.) and Forester

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[Website](#), [LinkedIn](#), [Google Scholar](#), [ResearchGate](#)



As a Remote Sensing and GIS Specialist (Ph.D. Environmental Engineering, M.Sc. Mediterranean Forestry), I design and operationalize satellite-based monitoring systems for land, water and agriculture. I combine advanced GIS/RS processing (Python, Google Earth Engine, SEPAL) with decision-support tools and inclusive governance mechanisms to support FAO projects and national partners in climate-vulnerable countries.

Skills

Languages: Italian (native), English, Spanish (fluent), Turkish, Portuguese (intermediate)

Software tools: MATLAB, Python, QGIS, PyQGIS, Office, LATEX, Google Earth Engine, FAO tools (SEPAL, CEO, EarthMap, etc.)

Professional experience

International GIS/RS consultant *FAO, Land and Water Division* **2023 – present**

- Development of the geospatial platform [the Gambia GeoLab](#) presented at [Geo for Good Summit](#) in Singapore (2025) ([FAO news](#), [read](#))
- Design and delivery of trainings on “Geospatial Tools for Mangrove Monitoring in The Gambia” ([visit](#)) and “Using SEPAL, Google Earth Engine and Collect Earth Online to produce a Land Cover Map of Gambia (2023)” ([visit](#)).
- Flood impact assessment in Pakistan, Aug–Sep 2025 ([KP](#), [Punjab](#), [Sindh](#))
- Land Cover Atlas of Yemen ([read](#))
- Geospatial technical assistance for Resilience of Organizations for Transformative Smallholder Agriculture (ROOTS) project, The Gambia ([read](#)). Land Cover map of the Gambia ([read](#), [watch](#))

Post-doctoral researcher *University of Lisbon, Portugal* **2020 – 2023**

- Estimating shrub live fuel moisture content for mainland Portugal ([read](#))
- Study of traditional extensive pastoralism relying on fires in Northern Portugal with GIS/RS analysis
- Mapping Fire Regimes over Portugal ([read1](#), [read2](#)) and Turkey ([read](#))
- Automatic monitoring of the national fuel break network of Portugal with Sentinel-2 in GEE ([read](#)).

EUaid volunteer *Sustainable Rural Development, Vietnam* **2020 – 2022**

- Developing an [App](#) in GEE to monitor Canopy Cover in Vietnam.
- Mapping smallholder coffee production system in NW Vietnam. ([watch](#))

Post-doctoral researcher *Istanbul Technical University, Turkey* **2012 – 2018**

- Biomass Burning emission estimation with geostationary observations ([read](#))
- Description of forest fires over Turkey using the most advanced satellite observations ([visit](#))
- First version of Forest Fire Monitoring System web-GIS in Turkey ([visit](#))

Environmental consultant (volunteer) *Aprode Peru (NGO), Peru* **2011**

- Field campaigns to outline the solid waste management cycle in rural villages in Northern Peru
- Implemented a project for the social inclusion of informal recyclers ([watch](#))

Visiting scholar *University of Wisconsin, USA* **2008, 2009 - 2010**

- Development and assessment of advanced satellite fire detection products using statistical tools
- Testing product operational applicability over Southern Italy

Education (linked: [certificates](#), [grades](#), [extra-courses](#), [international cooperation](#), [references](#))

M.S., Mediterranean Forestry and Natural Resource Management

Erasmus Mundus

1st year: University of Lisbon (Portugal), Valladolid (Spain) & Padova (Italy)

2019

- Natural resource management with decision support systems. Forest governance, agroforestry, fire ecology & management, GIS, research & project development methodology

2nd year: University of Porto (Portugal) & Lleida (Spain)

2020

- Governance of Mediterranean Forests, Economics and Management Non-Profit Organizations, Research Methods, Mathematical Tools For Business and Economics. Environmental Economics.
- Thesis: "Describing fire regimes over Turkey using MODIS fire observations"

Ph.D., Environmental Applications with Remote Sensing

University of Wisconsin, Madison & University of Basilicata

2007– 2011

- Advanced tools for satellite-based environmental monitoring (biomass combustion emissions)
- Thesis: Performance of satellite techniques for real-time fire monitoring in Italy

B.S. and M.S., Environmental Engineering (summa cum laude)

University of Basilicata (Italy)

2001–2004

- Waste-water and waste management; atmospheric physics; water, air and soil pollution dynamics
- Physics, chemistry, geology, statistics, economics