

# 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](#))
- 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**

*1<sup>st</sup> 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

*2<sup>nd</sup> 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