

Thanh-Noi PHAN, PhD

Environmental and remote sensing scientist with extensive experience in large-scale, multi-source geospatial data integration, climate-related time series analysis, and model validation. Specialized in developing robust environmental datasets with uncertainty awareness for interdisciplinary applications and policy-relevant research.

PROFESSIONAL EXPERIENCE

Ludwig-Maximilians University of Munich

Munich, Germany
06.2019 – 12.2025

● Postdoctoral Researcher

- Collaborated within an international interdisciplinary research consortium integrating remote sensing, ecological, socio-economic, and field data to analyze climate and human-driven impacts on Mongolian grassland ecosystems.
- Led field campaign planning and data collection in Mongolia and contributed to interdisciplinary synthesis and policy-relevant outputs.

University of Göttingen

Göttingen, Germany
11.2018 – 05.2019

● Associate Researcher

- Performed data analysis for remote sensing and environmental research projects.
- Contributed to peer-reviewed publications and supported research workflows.

Vietnam National University of Agriculture

Hanoi, Vietnam
03.2008 – 10.2013

● Lecturer and Researcher

- Taught Photogrammetry, Remote Sensing, and GIS for Land Management and Soil Science programs.
- Supervised undergraduate theses and supported applied geospatial research activities.

Geodetic & Topographic Division

Hanoi, Vietnam
07.2007 – 02.2008

● Geospatial Survey Engineer

- Participated in large-scale bathymetric surveys.
- Processed, quality-checked, and analyzed seabed depth data to generate bathymetric datasets.

EDUCATION

University of Göttingen ●
Germany
2013 – 2018

● PhD in Geography (magna cum laude),

Air surface temperature estimation using MODIS land surface temperature data in northwest Vietnam

Asian Institute of Technology (AIT)
Thailand
2010 – 2012

● MSc in Natural Resources Management

Detecting Land Use and Land Cover Change using Remote Sensing and GIS

Hanoi University of Mining and Geology,
Vietnam
2002 – 2007

● BSc in Geodesy (Land Surveying Engineering)

Processing and Least-Squares Adjustment of GPS Data




CONTACT INFO

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 [ResearchGate](#)

 [GitHub](#)

 [Google Scholar](#)

 [Homepage](#)

SKILLS

Programming & Data Processing

R, Python, Google Earth Engine (GEE)

Remote Sensing & Earth Observation

Multi-sensor integration, time-series analysis, Calibration & Validation, QA/QC, feature extraction for hazard and environmental monitoring.

GIS & Spatial Analytics

ArcGIS, QGIS, ENVI, geostatistics, spatial modeling, spatial data analysis

Field & Data Collection

UAV operations, hyperspectral surveys, GPS & land surveying, sampling design, field protocol implementation

Languages

- Vietnamese: Native
- English: C1+
- German: A2+ (B1 course in progress)

Updated: 02.2026

PROJECT (selected)

MORE STEP – Mobility at Risk: Sustaining the Mongolian Steppe Ecosystem (2019 – 2025)

- Conducted research within a large international interdisciplinary consortium involving universities and research institutes in Germany and Mongolia, integrating remote sensing, ecological, socio-economic, and field-based datasets to analyze climate- and human-driven impacts, ecosystem responses, and potential tipping points in Mongolian grassland systems.
- Planned, coordinated, and conducted multiple multi-week field campaigns in Mongolia, including sampling design, field protocol implementation, and collaboration with international partners for comprehensive data collection.
- Contributed to interdisciplinary synthesis and stakeholder engagement to translate scientific findings into evidence-based insights and policy-relevant recommendations for climate-vulnerable nomadic communities affected by climate change and extreme events.

TRAINING & KNOWLEDGE TRANSFER (Selected)

- Delivered applied training on Google Earth Engine and EO-based workflows for students and working professionals.
- Experienced in communicating geospatial methods and analytical results to academic, technical, and non-technical audiences across applied and operational contexts.

AWARDS & RECOGNITION (Selected)

- Travel Grant, LMU Munich Mentoring Program (2024).
- Family-Oriented Finishing Grant, GAUSS – University of Göttingen (2018).
- Ford Foundation Scholarship – MSc Studies, Asian Institute of Technology (2010 – 2012).

RESEARCH OUTPUT

- Author / Co-author of 17 peer-reviewed publications in remote sensing and EO applications. Full publication list and citation metrics available on [Google Scholar](#)

Selected Applied Techniques (from Publications & Ongoing Research)

1. Fire hazard validation & correction (expert-informed EO analysis)

Applied expert knowledge in EO to validate and correct global burned area products, revealing systematic under-detection of fire events (>50% missing in study plots) and underestimation of fire frequency and return intervals, with implications for fire hazard and ecosystem impact assessment.

2. Machine learning validation for large-area land cover mapping

Validated and compared machine learning classifiers (Random Forest, SVM, k-NN) for Sentinel-2 land cover mapping, addressing training sample size sensitivity and class imbalance effects to improve classification robustness and reliability (Phan & Kappas, 2018).

3. Large-scale EO data processing and optimization

Optimized large-area land cover mapping workflows through image compositing and scalable processing strategies in Google Earth Engine, enabling consistent, updateable spatial datasets across regional to continental scales (Phan et al., 2020).

4. Time-series mapping for operational and decision-support use

Developed simple, fast, and accurate time-series land cover mapping workflows, producing large-area datasets designed for operational monitoring and decision-support applications (Phan et al., 2022).

PROFESSIONAL MEMBERSHIPS & SERVICE (Selected)

Member of international Earth observation and remote sensing professional societies (e.g., ISPRS, EGU, AGU).

Reviewer for 20+ peer-reviewed scientific journals, including Elsevier, Taylor & Francis, Wiley, and Springer Nature.