CONTACT INFO

Phan.Noi@lmu.de
+49 (0) 89/2180 - 6748
ResearchGate
Github
Homepage

For more information, please contact me via E-mail.

SKILLS

Experienced in Geostatistical analysis, Machine Learning, and Classification Algorithms.

Full experience with GIS software (Envi, ArcGIS).

Skilled in R, Python, Google Earth Engine (GEE)

Last updated on 2025-06-02.

THANH-NOI PHAN

Postdoctoral Researcher | Ludwig-Maximilians University of Munich

My broad research interests lie in understanding the interactions between human activities and surface climate, environment, and landscapes across various scales. I leverage field-based inventory data, advanced remote sensing techniques, data harmonization, and diverse geocomputational approaches to achieve my research objectives.

EDUCATION

11.2018 — **University of Göttingen**
PhD in Geography (magna cum laude) — Göttingen, Germany

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

6.2012 — **Asian Institute of Technology**
MSc in Natural Resources Management — Bangkok, Thailand

Thesis: Detecting Land Use and Land Cover Change using Remote Sensing and GIS: Case Study of Tam Nong District, Phu Tho Province, Vietnam

6.2007 — **Hanoi University of Mining and Geology**
BSc in Geodesy (Survey Engineering) — Hanoi, Vietnam

Thesis: GPS Positioning

RESEARCH EXPERIENCE

06.2019 – present — **Postdoctoral Researcher**
Ludwig-Maximilians University of Munich (LMU) — Munich, Germany

11.2018 – 05.2019 — **Associate Researcher**
University of Göttingen — Göttingen, Germany

03.2008 – 10.2013 — **Lecturer and researcher**
Vietnam National University of Agriculture (VNUA) — Hanoi, Vietnam

07.2007 – 02.2008 — **Geodesy Engineer, Land/GPS Surveyor**
Geodetic and Topographic Division — Hanoi, Vietnam

TEACHING EXPERIENCE

03.2008 – 10.2013 — **Geodesy for Land Management Program**
Teaching Geodesy courses (Basic & Advanced) for Land Management Program at VNUA.
Hanoi, Vietnam

03.2008 – 10.2013 — **Photogrametry, Remote Sensing, and GIS**
Teaching Photogrametry, Remote Sensing, and GIS courses for Land Management Program at VNUA.
Hanoi, Vietnam

10.2024 — **Introduction to Google Earth Engine for Big Data Analysis**
This extracurricular course is designed to provide Bachelor's, Master's, and PhD students at LMU with the essential resources to start using Google Earth Engine (GEE).
Munich, Germany

SCHOLARSHIP & AWARDS

11.2017 – 04.2018
Family Oriented Finishing Grant
This grant offers stipends for PhD students who have families and demonstrate strong research results.
Göttingen, Germany

11.2013 – 10.2017
Scholarship for PhD program at the University of Göttingen, Germany.
Scholarship from the Government of Vietnam
Göttingen, Germany

08.2010 – 06.2012
Scholarship from Ford Foundation
Scholarship for Master Degree at Asian Institute of Technology (AIT), Bangkok, Thailand.
Bangkok, Thailand

05.2005
Scholarship for outstanding student
This scholarship, provided by The Aerial Photo - Topography Company and the Military Map Department of Vietnam, is awarded to the top 5 students at Hanoi University of Mining and Geology.
Hanoi, Vietnam

Scholarship for excellent students
The Hanoi University of Mining and Geology awards scholarships to excellent students during the academic year. Hanoi, Vietnam 09.2002 – 07.2007

Research Projects

MORE STEP – Mobility at risk: Sustaining the Mongolian Steppe Ecosystem | Website

This is a collaborative and interdisciplinary research project of Mongolian and German partners funded by the German Federal Ministry of Education and Research.

List of Publications

Google Scholar | Scopus | ResearchGate

Peer-Reviewed Journals (published)

[14]. Diem, P. K., Nguyen, C. T., Diem, N. K., Diep, N. T. H., Thao, P. T. B., Hong, T. G., & **Phan, T.-N**. (2024). Remote sensing for urban heat island research: Progress, current issues, and perspectives. *Remote Sensing Applications: Society and Environment*, 33. https://doi.org/10.1016/j.rsase.2023.101081

[13]. Ji, S., Dashpurev, B., **Phan, T.-N**., Dorj, M., Jäschke, Y., & Lehnert, L. (2024). Above-ground biomass retrieval with multi-source data: Prediction and applicability analysis in Eastern Mongolia. *Land Degradation & Development*. https://doi.org/10.1002/ldr.5109

[12]. Dashpurev, B., Dorj, M., **Phan, T.-N**., Bendix, J., & Lehnert, L. W. (2023). Estimating fractional vegetation cover and aboveground biomass for land degradation assessment in eastern Mongolia steppe: combining ground vegetation data and remote sensing. *International Journal of Remote Sensing*, 44(2), 452-468. https://doi.org/10.1080/01431161.2023.2165421

[11]. Nguyen, C. T., Kaewthongrach, R., Channumsin, S., Chongcheawchamnan, M., **Phan, T.-N**., & Niammuad, D. (2023). A regional assessment of ecological environment quality in Thailand special economic zone: Spatial heterogeneous influences and future prediction. *Land Degradation & Development*, 34(18), 5770-5787. https://doi.org/10.1002/ldr.4876

[10]. **Phan, T.-N**., Dashpurev, B., Wiemer, F., & Lehnert, L. W. (2022). A simple, fast, and accurate method for land cover mapping in Mongolia. *Geocarto International*, 37(26), 14432-14450. https://doi.org/10.1080/10106049.2022.2087759

[9]. Dashpurev, B., Wesche, K., Jäschke, Y., Oyundelger, K., **Phan, T.-N**., Bendix, J., & Lehnert, L. W. (2021). A cost-effective method to monitor vegetation changes in steppes ecosystems: A case study on remote sensing of fire

and infrastructure effects in eastern Mongolia. *Ecological Indicators*, 132. https://doi.org/10.1016/j.ecolind.2021.108331

[8]. **Phan, T.-N**., Kuch, V., & Lehnert, L. W. (2020). Land Cover Classification using Google Earth Engine and Random Forest Classifier—The Role of Image Composition. *Remote Sensing*, 12(15). https://doi.org/10.3390/rs12152411 (Highly Cited Paper)

[7]. Bayat, M., **Phan, T.-N**., Zare, R., & Bui, D. (2019). A Semi-empirical Approach Based on Genetic Programming for the Study of Biophysical Controls on Diameter-Growth of Fagus orientalis in Northern Iran. *Remote Sensing*, 11(14). https://doi.org/10.3390/rs11141680

[6]. **Phan, T.-N**., Kappas, M., Nguyen, K. T., Tran, T. P., Tran, Q. V., & Emam, A. R. (2019). Evaluation of MODIS land surface temperature products for daily air surface temperature estimation in northwest Vietnam. *International Journal of Remote Sensing*, 40(14), 5544-5562. https://doi.org/10.1080/01431161.2019.1580789

[5]. **Phan, T.-N**., & Kappas, M. (2018). Application of MODIS land surface temperature data: a systematic literature review and analysis. *Journal of Applied Remote Sensing*, 12(04). https://doi.org/10.1117/1.Jrs.12.041501

[4]. **Phan, T.-N**., Kappas, M., & Tran, T. (2018). Land Surface Temperature Variation Due to Changes in Elevation in Northwest Vietnam. *Climate*, 6(2). https://doi.org/10.3390/cli6020028

[3]. **Phan, T.-N.**, & Kappas, M. (2018). *Comparison of Random Forest, k-Nearest Neighbor, and Support Vector Machine Classifiers for Land Cover Classification Using Sentinel-2 Imagery. Sensors (Basel)*, 18(1). doi:10.3390/s18010018 (Highly Cited Paper)

[2]. **Phan, T.-N**., Degener, J., & Kappas, M. (2017). Comparison of Multiple Linear Regression, Cubist Regression, and Random Forest Algorithms to Estimate Daily Air Surface Temperature from Dynamic Combinations of MODIS LST Data. *Remote Sensing*, 9(5). https://doi.org/10.3390/rs9050398

[1]. **Phan, T.-N**., Kappas, M., & Degener, J. (2016). Estimating Daily Maximum and Minimum Land Air Surface Temperature Using MODIS Land Surface Temperature Data and Ground Truth Data in Northern Vietnam. *Remote Sensing*, 8(12). https://doi.org/10.3390/rs8121002

Peer-Reviewed Journals (Submitted, Under Review)

[4]. Oyundelger, K., Jäschke, Y., Gonchigsumlaa, G., Batjav, B., Damdindorj, S., Munkhzul, O., **Phan, T.-N**., Mehring, M., Drees, L., Kasymov, U., Ring, I., Ritz, C.M., Wesche, K. (2024). Assessing pasture quality in Mongolian steppe: cross-validating local traditional knowledge and standard ecological surveys (Submitted).

[3]. Ji, S., Gonchigsumlaa, G., Damdindorj, S., Tseren, T., Sharavjamts, D., Otgondemberel, A., Gurjav, E., Puntsagsuren, M., Tsabatshir, B., Gungaa, T., Batbold, N., Drees, L., Ganbayar, B., Orosoo, D., Lkhamsuren, B., Ganbat, B., Damdinsuren, M., Gombosuren, G., Dashpurev, B., **Phan, T.-N**., Dejid, N., Müller, T., Lehnert, L. (2024). Monitoring breakpoints under grazing pressure in Eastern Mongolia (Under Review).

[2]. Nguyen, C. T., Diem, P. K., Dang, H.N., Diem, N. K., Diep, N. T. H., **Phan, T.-N**., Vo, Q.M. (2024). Leveraging Convolutional Neural Networks and Textural Features for Tropical Fruit Tree Species Classification. (Under Review).

[1]. Wang, Y., Oyunbileg, M., Khaliun, U., Batlai, O., **Phan, T.-N**., Lehnert, L., Gonchigsumlaa, G., Damdindorj, S., Kasymov, U., Drees, L., Mehring, M., Dejid, N., Wesche, K. (2024). Herder mobility matters yet climate controls plant community composition in eastern Mongolian steppe. (Under Review).

Conference Publications

[5]. **Phan, T.-N**., Zerres, V., Svanidze, D., Dashpurev, B., and L. W. Lehnert (2024). Grassland fire monitoring and their effects on ecosystems in Mongolian steppes. AGU24, 9-13 Dec, Washington D.C.

[4]. Dashpurev, B., **Phan, T.-N**., J. Bendix, L. Lehnert (2022). Deriving vegetation cover and land degradation in the vast eastern Mongolian Steppe from Sentinel 2 using random forest. ESA Living Planet Symposium, Bonn.

[3]. Dashpurev, B., **Phan, T.-N**., J. Bendix, and L. W. Lehnert (2021). Estimating the Effect of Infrastructure on Vegetation Degradation in Eastern Mongolia Steppe Using Machine Learning and Remote Sensing. IEEE International Geoscience and Remote Sensing Symposium IGARSS.

[2]. Lehnert, L. W. & **Phan, T.-N**. (2020). Comparison of fire products in Mongolia reveals contrasting results. 22nd EGU General Assembly, Vol. 22, p. 11064.

[1]. **Phan, T.-N**., Y. Jäschke, O. Chuluunkhuyag, M. Oyunbileg, K. Wesche, and L. W. Lehnert (2020). Remote sensing of grassland communities in Mongolian Steppe combining multi-source data and machine learning classification algorithms. 22nd EGU General Assembly, Vol. 22, p. 13399.

Reviewr Activities

Elsevier (Sustainable Cities and Society; ISPRS Journal of Photogrammetry and Remote Sensing; Flora; Advances in Space Research; International Journal of Applied Earth Observation and Geoinformation);

MDPI (Remote Sensing);

Nature (Scientific Reports);

IEEE (IEEE Geoscience and Remote Sensing Letters);

Taylor & Francis (Physical Geography; Geocarto International; International Journal of Digital Earth);

Wiley (Earth and Space Science; Ecology and Evolution; Land Degradation & Development);

Springer (Environmental Earth Sciences; Environmental Monitoring and Assessment; SN Applied Sciences; Natural Hazards)

References

Prof. Dr. Lukas Lehnert
Postdoctoral Mentor
Department of Geography
Ludwig-Maximilians-Universität München
Phone: +49 89 2180 6681
Email: lehnert.lu@lmu.de

Prof. Dr. Martin Kappas
PhD Advisor
Department of Cartography, GIS & Remote Sensing
Georg-August-Universität Göttingen
Phone: +49 551 39 8071
Email: mkappas@gwdg.de

Assoc. Prof. Dr. Nguyen Thi Hong Diep
Collaborator in Vietnam
College of Environment and Natural Resources
Can Tho University, Vietnam
Email: nthdiep@ctu.edu.vn

Prof. Dr. Karsten Wesche
Collaborator in the MoreStep Project
Director, Senckenberg Museum of Natural History
Head of Section Phanerogams
Phone: +49 3581 476053-00
Email: karsten.wesche@senckenberg.de