Curriculum Vitae

Muhamad Khairul Rosyidy
Damaji,
Kecamatan Beji, Kabupaten Lombok Tengah,
Nusa Tenggara Barat 53553

Contact Information
khairulnajwa1@gmail.com
www.linkedin.com/in/mkhairulrosyidy
087711590743

ABOUT ME

Bachelor of Science in Geography from Universitas Indonesia which focused on GIS and Remote sensing. Detail-oriented and research-driven GIS & Remote Sensing Specialist and surveying with 4+ years of experience across agriculture and land-use sectors. Proven track record in leading GIS Team and spatial data initiatives, implementing remote sensing-based solutions, and developing WebGIS platforms for multi-site operations. Strong foundation in remote sensing analysis, environmental monitoring, GIS modelling and data-driven decision-making using cloud-based and Deep learning-powered geospatial tools (Google Earth Engine, Jupyter notebook and Google Colab).

SKILLS

- GIS & Remote Sensing: ArcGIS, QGIS, Google Earth Engine, Google Colab, Jupyter Notebook, Drone/UAV
- Programming: Python, JavaScript (Earth Engine API), R (basic)
- Cloud Platform: Google Earth Engine, SharePoint, WebGIS Dashboard, Google Colab
- Spatial Analytics: LULC, Deformation, Deforestation, Drone Image Analysis, Plant Health
- Soft Skills: Leadership/Team Management, Sustainability, Public Speaking, Analytical Thinking

WORK EXPERIENCE

GIS Supervisor/Head Assistant **Oct 2024 – Present**
Capitol Group Indonesia

- Led the GIS team in supporting plantation operations across multiple regions, ensuring timely and accurate spatial data delivery.
- Monitoring hectare statements and crop growth trends using spatial data analysis to improve productivity tracking.
- Developing geospatial tools to detect vacant areas and pest-prone zones, enabling faster and more targeted agronomic interventions.
- Provided cross-functional GIS support to Agronomy, Legal, and Civil division, contributing to smoother operational workflows and data-driven planning.
- Trained and mentored GIS officers across sites to ensure continuous skill development and standardization of spatial data practices

Geospatial Data Analyst **Aug 2021 – Oct 2024**
PT Austindo Nusantara Jaya Tbk

- Developed and managed a WebGIS dashboard for oil palm operations across 6 estate concessions, improving spatial accessibility and reporting.
- Analyzed high-resolution multispectral imagery to assess crop health, achieving over 80% classification accuracy.
- Successfully led a research collaboration between Universitas Indonesia and PT ANJ, focusing on remote sensing and plant health analysis.
- Led water management assessments for plantations in Papua and North Sumatra, supporting drainage planning and environmental compliance.
- Conducted quarterly LULC monitoring to support zero deforestation targets across all PT ANJ sites.
- Delivered spatial analysis and field surveys to support land compensation validation for PT GSB.
- Produced thematic maps for land acquisition, RSPO certification, and internal operational decision-making

Research Intern **Sept 2020 – Dec 2020**
National Research and Innovation Agency (BRIN)

- Conducted spatial and temporal analysis of oil palm production using Sentinel-2 imagery in Muara Enim, South Sumatra.
- Processed and integrated multi-source satellite data to generate detailed and accurate oil palm distribution maps.
- Drafted and structured scientific manuscripts, ensuring academic rigor, clarity, and adherence to peer-reviewed journal standards

RESEARCH EXPERIENCE

GIS Analyst / Co-Author **Jan 2023 – Jul 2023**
National Research and Innovation Agency (BRIN)

- Conducted a research project titled *"From Agriculture to Private City: Gentrifying Rural Pagendanan due to New Town Development in the South-West of Jakarta, Indonesia"*, funded by BRIN.
- Analyzed five years of land-use change data to assess its impact on gentrification and peri-urban transformation.
- Led and coordinated ground truth surveys to validate spatial data.
- Contributed to and Published in a Scopus **Q2 International journal** as co-author

GIS Analyst / First Author **May 2021 – Jun 2021**
School of Environment, Universitas Indonesia

- Conducted a scientific research project titled *"Spatiotemporal Analysis of Oil Palm Land Clearing"*, funded by the Directorate of Research and Development, Universitas Indonesia.
- Published in a **Q1 international journal** in January 2024 as first Author.
- Analyzed five years of land cover change in Sumatera using multispectral remote sensing data.
- Assessed the ecological and political impacts of oil palm expansion in peatland and forested areas.
- Designed the research framework, developed the methodology, and led ground truth surveys

EDUCATION

Bachelor of Science in Geography
Faculty of Mathematics and Natural Sciences, Universitas Indonesia, Depok, Indonesia
GPA : 3.68 (Cum Laude)

SEMINARS

Presenter **Sept 2021**
The 3rd International Conference on Engineering, Technology, And Innovative Researches, Faculty of Engineering, Universitas Jenderal Soedirman (Purbalingga, Indonesia)

Presenter **Sept 2020**
4th IGEOS: International Geography Seminar, Geography Education Department, Indonesia University of Education (Bandung, Indonesia)

HONOURS AND AWARDS

Most Outstanding Student in the Social and Environmental Category (MAPRES) **Apr 2020**
Faculty of Mathematics and Natural Sciences, Universitas Indonesia, Depok, Indonesia

2nd Runner-up of the National Scientific Paper Competition of Remote Sensing **Sept 2019**
Indonesian National Institute of Aeronautics and Space (LAPAN) / National Research and Innovation Agency (BRIN)

SELECTED PUBLICATIONS

- **Rosyidy, M. K**., & Frimawaty, E. **(2024).** Spatiotemporal analysis of oil palm land clearing. *Global Journal of Environmental Science and Management*, *10*(2), 821-836. https://doi.org/10.22034/gjesm.2024.02.25
- Kusumaningrum, D., & **Rosyidy, M. K**. **(2024).** From agriculture to new town: land conversion towards new-build gentrification in the southwest of Jakarta, Indonesia. *Journal of Property Research*, *41*(3), 276-298. https://doi.org/10.1080/09599916.2024.2364613
- **Rosyidy, M. K**., Wibowo, A., & Sidiq, I. P. A. **(2023, February).** Oil palm mapping based on machine learning and non-machine learning approaches using Sentinel-2 imagery. In *AIP Conference Proceedings* (Vol. 2482, No. 1). AIP Publishing. https://doi.org/10.1063/5.0114333
- **Rosyidy, M. K**., Dimyati, M., Shidiq, I. P. A., Zulkarnain, F., Rahaningtyas, N. S., Syamsuddin, R. P., & Zein, F. M**. (2021).** Landslide Surface Deformation Analysis Using SBSA-INSAR in The Southern Part Of The Sukabumi Area, Indonesia. *Geographia Technica*, *16*(Special Issue), 138-152. http://dx.doi.org/10.21163/GT_2021.163.11
- **Rosyidy, M. K**., & Wibowo, A. **(2020).** GIS-Based Spatial Model for Habitat Suitability of Babirusa (Babyrousa celebensis), in Gorontalo Province. *Jurnal Geografi Lingkungan Tropik (Journal of Geography of Tropical Environments)*, *4*(1), 4. https://doi.org/10.7454/jglitrop.v4i1.77