# **NII AMARQUAYE COMMEY**

### GEOSPATIAL SCIENTIST & ENVIRONMENTAL CONSULTANT

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### **PROFESSIONAL SUMMARY**

Interdisciplinary environmental scientist with 6+ years of expertise in geospatial analysis, remote sensing, and coastal ecosystem assessment. Proven track record in satellite data processing, environmental consulting, and leading multidisciplinary research teams. Published researcher with a strong background in GIS applications and policy-relevant environmental science.

### **EDUCATION**

### Ph.D. in Environmental Engineering | Oct. 2021 – Mar. 2025

University of Yamanashi, Japan

Coastal wetland ecosystem modifications using geospatial techniques

M.Phil. in Marine Science | Sep. 2015 – Jul. 2017

University of Ghana, Ghana

Macrobenthic Infaunal Assemblage Structure Analysis

**B.Sc. in Oceanography** | Aug. 2010 – Jun. 2014

University of Ghana, Ghana

Investigation of Upwelling Dynamics Using Satellite Data

### PROFESSIONAL EXPERIENCE

## Research Assistant Professor | Apr. 2025 - Present

University of Yamanashi, Japan

- Designing watershed-scale pollution load models integrating isotopic data and hydrological processes.
- Leading manuscript development and coordinating with local governments for model validation.

### Satellite Data Analysis Engineer | Nov. 2024 – Mar. 2025

Solafune, Japan

- Supported development of AI-driven remote sensing technologies for environmental monitoring and agriculture.
- Conducted custom satellite data analysis, including change detection and time-series analysis using cloud-based platforms.

### Research & Teaching Assistant | Sep. 2024 – Mar. 2025

University of Yamanashi, Japan

- Assisted graduate students in refining research workflows, optimising analytical processes, and enhancing methodological rigour across various stages of academic inquiry.
- Communicated research outcomes effectively through presentations, reports, and academic writing.

### Environmental Consultant & Marine Biologist | Sep. 2015 – Oct. 2021

ESL Consulting, Ghana

- Led multidisciplinary field teams (3-8 personnel) conducting Environmental Impact Assessments for industrial and coastal projects.
- Coordinated technical meetings with environmental scientists and regulatory authorities.

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### **CORE COMPETENCIES**

**Technical Skills:** ArcGIS Pro, QGIS, Google Earth Engine, Python, R, SNAP, Satellite Data Processing **Specialised Areas:** Remote Sensing, Coastal Ecosystem Assessment, Environmental Impact Assessment,

Spatial Modelling

Languages: English (Fluent), French (Basic), Japanese (Basic)

Leadership: Project Management, Team Coordination, Stakeholder Consultation, Academic Mentoring

### **KEY PUBLICATIONS | FULL LIST**

- 1. Commey, N. A., Magome, J., Ishidaira, H., & Souma, K. (2024). Assessment of Rainfall-Runoff and Non-Point Source Pollution Loads in the Sakumo Catchment using GIS and QNSPECT. *Journal of JSCE*, (Accepted).
- Commey, N. A., Magome, J., Ishidaira, H., & Souma, K. (2023). Catchment-Scale Land Use and Land Cover Change Analysis in Two Coastal Ramsar Sites in Ghana, Using Remote Sensing. Water, 15(20), 3568.
- 3. Li, H., Wei, Y., Ishidaira, H., Commey, N.A. and Yang, D. (2024). Integrated urban and riverine flood risk management in the Fujiang River Basin-Mianyang city. *Journal of Hydrology*, 645, p.132150.
- 4. Wei, Y., Jin, J., Li, H., Zhou, Y., Cui, Y., Commey, N. A., ... & Jiang, S. (2023). Assessment of Agricultural Drought Vulnerability Based on Crop Growth Stages: A Case Study of Huaibei Plain, China. *International Journal of Disaster Risk Science*, 14(2), 209-222.
- 5. Commey, N. A., Lamptey, E., & Armah, A. K. (2021). Macrobenthic infaunal assemblage structure in nearshore and offshore seabeds of Ghana. *Indo Pacific Journal of Ocean Life*, 5(2).

### PROFESSIONAL DEVELOPMENT & RECOGNITION

### **Conference Presentations:**

- The 20th Annual Western Australian Wetlands Conference, Perth (Feb 2024)
- International Symposium on Water Environment for Young Researchers, Japan (Sep 2023)

### **Certifications:**

- Environmental Impact Assessment Advanced Scoping Study (Aug 2019)
- Basic Offshore Safety Induction & Emergency Training OPITO Approved (Nov 2018)
- Environmental and Social Impact Assessments (Sep 2016)

### Awards:

- MEXT Graduate Scholarship, Japan Ministry of Education (2021)
- ICRE Award Online Salon, University of Yamanashi (2023)
- Best Graduating Student, Marine & Fisheries Sciences, University of Ghana (2014)

### **RESEARCH IMPACT & COLLABORATIONS**

Dr. Commey's research bridges academic excellence with practical environmental solutions. His work on coastal wetland management has direct policy implications for sustainable development in West Africa, while his expertise in satellite data analysis supports agricultural optimisation and climate monitoring applications. He has successfully coordinated international collaborative projects and maintains active research partnerships across countries.

His commitment to open-source tools and knowledge transfer reflects his dedication to making advanced analytical capabilities accessible to broader research and practitioner communities worldwide.

This condensed CV highlights key qualifications. Full detailed CV available <u>upon request</u>.