George Ashiagbor (PhD)

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Education

- PhD. Geomatic Engineering, Dept. of Geomatic Engineering, KNUST - Kumasi (Ghana); August 2020
- Forest Degradation Mapping training, University of Edinburgh. UK; 2019
- SAR Training (Certificate) , Centre for Landscape and Climate Research, University of Leicester, UK; May, 2018
- MPhil. Geomatic Engineering, Dept. of Geomatic Engineering, KNUST - Kumasi (Ghana); June 2011
- BSc. Geodetic Engineering, Dept. of Geomatic Engineering, KNUST - Kumasi (Ghana); June 2011

Membership in Professional Associations

- Member, Ghana Institution of Engineers (GhIE)
- Member, Ghana Geospatial Society

Employment Record Relevant to Assignment

- 2014-Date: **Lecturer**, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana
- 2022-Date: **Co-Principal Investigator** (Remote Sensing/GIS Technical Lead). Remote Sensing Framework for site-specific cocoa fertilisation (FRAME-Cocoa Project).
- 2020: **Co-Principal Investigator** (Remote Sensing/GIS Technical Lead). GIS Mapping for Resupply Project in Ghana. IUCN, Ghana
- 2020 – 2021: **Principal Investigator**. Governing Multifunctional Landscapes in Sub-Saharan Africa: Managing Trade-Offs between Social and Ecological Impacts. The Center for International Forestry Research (CIFOR)
- 2018 – 2021: **Remote Sensing Lead**. Forest 2020 Project. Faculty of Renewable Natural Resources. Kwame Nkrumah University of Science and Technology. Ecometrica Ltd/UK Space Agency.
- 2011 – 2014: **GIS Manager of APERL** (Agroforestry Practices to Enhance Resource-poor Livelihoods) Project. APERL Ghana Project, Faculty of Forest Resources Technology (FFRT), Kwame Nkrumah University of Science and Technology (KNUST)

Selected Projects and Consultancies Linked

- August 2023 - February 2024
  WWF (Japan) Remote sensing mapping of cocoa deforestation in Ghana's cocoa-forest mosaic landscape of Ghana under EUDR. **Role: GIS/Remote sensing consultant**

- October 2022 - March 2023
  GAF AG (https://www.gaf.de/). The baseline assessment of the Ghana Geological Service Authority (GGSA) is aimed at analysing the context, specifications, and functional requirements for an upgraded

GMIS (Geological and Minerals Information Management System)for Ghana. **Role: Geographic Information Systems Analyst**

- June 2022 - July 2023
  Ecometrica. UK PACT funded Forest PositiveExports Nigeria (FPEN) project. Ecometrica manages services and programmes for governments and companies to monitor the global impact of forest-risk commodities such as cocoa,palm oil, beef and coffee. This project works with partners in Ghana and Nigeria to improve the capacity to produce high-quality land cover maps better to monitor cocoa's impact on forests in Nigeria. **Role: GIS/Remote Sensing Specialist**

- May 2022 - Present
  Remote sensing mapping of cocoa deforestation in Ghana's cocoa-forestmosaic landscapeThe FRAME-Cocoa project (African Plant Nutrition Institute (APNI) funded collaboration): A project aimed to develop site-specific crop performance indicators based on soil fertility, crop management incl Nutrition, existing soil map information, and weather data, (2) to assess the feasibility of remotely sensed information technology to characterise crop performance, and (3) to understand gender-specific opportunities to adopt site-specific fertiliser interventions (elaborated through diagnostic surveys). **Role: Principal Investigator/Remote Sensing Lead**

- April 2017 - March 2021
  Forest 2020 Ghana Project (https://ecometrica.com/forests-2020/): Forests 2020 is a major investment by the UK Space Agency, as part of the International Partnerships Programme (IPP), to help protect and restore up to 300 million hectares of tropical forests by improving forest monitoring in six partner countries through advanced uses of satellite data. In Ghana, the project aimed to develop a harmonised classification scheme for mapping Ghana's cocoa landscape develop a mapping protocol for segregating cocoa Agroforestry from Open forest cover and other land use land cover classes. **Role: GIS/Remote Sensing Technical Lead**

- February 2020 - April 2022
  Governing Multifunctional Landscapes (GML) in Sub-Saharan Africa: Managing Trade-off between social and Ecological Impacts: output 6.1pathways for implementing territorial approaches to zero deforestation commodities in Africa (https://www.cifor.org/gml/about/) : The GML project is a CIFOR funded (Subgrant Funds) of EUR 124,300 to develop field-tested land use/land cover (LULC) maps for 2015, 2017, 2018 and 2020 for both the Kwaebibirem Municipality and Atiwa West District, following methods that comply with national land-use mapping protocols agreed by the National REDD+ Technical Working Group. **Role**: **Principal Investigator/GIS and Remote Sensing Technical Lead**

- GIS Mapping for Resupply Project in Ghana. This is an IUCN-led project under the "Restoration in supply chains (RESUPPLY) – from zero net deforestation to positive action". The aim for the GIS Mapping Resupply Project in Ghana was to develop independent land use and land cover maps for Wassa Amenfi based on high-resolution satellite imaging (no less than 30m) for 2016 and 2020 with a specific focus on the location of cocoa plantations, distinguishing between intensive cocoa plantations and agroforestry systems; to analyse the change in land cover and use over time between 2016 – 2020; and to carry out validation of the LULC map using and the field data. **Role**: **Principal Investigator/GIS and Remote Sensing Technical Lead**

- June 2011 - July 2014
  APERL (Agroforestry Practices to Enhance Resource-Poor Livelihoods): Ghana project: APERL is a community Livelihood enhancement Project Established in 2007 to 2014 to introduce interventions

(Agroforestry Interventions) that will reduce poverty in some selected communities in the Sunyani-West District of Ghana. The overall project goal is to enhance the livelihoods of the resource-poor. **Role: GIS manager of the APERL Ghana project**

Selected Publications

Technical Reports

- Remote sensing mapping of cocoa deforestation in the cocoa-forest landscape of Ghana: Monitoring of cocoa driven deforestation in the cocoa Forest landscape of Ghana under the deforestation-free cocoa supply chain. WWF Japan (2024). WWF Japan, Tokyo Japan.

- Identifying opportunity areas for agroforestry to meet cocoa and forest policy objectives in Ghana. United Nations Environment Programme (2022). UNEP World Conservation Monitoring Centre. Cambridge UK. Available at: https://resources.unep-wcmc.org/products/WCMC_RT493

Refereed Journal Papers

- **Ashiagbor, G**., Asare-Ansah, A. O., Amoah, E. B., Asante, W. A., & Mensah, Y. A. (2023). Assessment of machine learning classifiers in mapping the cocoa-forest mosaic landscape of Ghana. Scientific African, 20, e01718.
- Asare, Y. M., Selby, I., **Ashiagbor, G**., & Asante, C. Y. (2023). Analysis and prediction of land use land cover dynamics in the Kpeshie Lagoon Basin of Ghana using satellite remote sensing. Journal of the Ghana Institution of Engineering (JGhIE), 23(1), 33-43.
- **Ashiagbor, G**., Asare-Ansah, A. O., Amoah, E. B., Asante, W. A., & Mensah, Y. A. (2023). Assessment of Machine Learning Classifiers in Mapping the Cocoa Forest Mosaic Landscape of Ghana. Scientific African, e01718.
- Adjapong, A. O., Oppong, S. K., Nsor, C. A., Boakye, E. A**., Ashiagbor, G**., & Danquah, E. (2023). Demography and reproductive seasonality of small terrestrial mammals in two forest ecosystems in Ghana. African Journal of Ecology, 61(2), 469-481.
- **Ashiagbor, G**., Asare-Ansah, A. O., Laari, P. B., & Asante, W. A. (2022). Cashew expansion holds potential for carbon stocks enhancement in the forest-savannah transitional zone of Ghana. Land Use Policy, 121, 106318.
- **Ashiagbor, G**., Asante, W. A., Forkuo, E. K., Acheampong, E., & Foli, E. (2022). Monitoring cocoa-driven deforestation: The contexts of encroachment and land use policy implications for deforestation free cocoa supply chains in Ghana. Applied Geography, 147, 102788.
- Manu, M. K., **Ashiagbor, G**., Seidu, I., Groen, T., Gyimah, T., & Toxopeus, B. (2022). Odonata as bioindicator for monitoring anthropogenic disturbance of Owabi wetland sanctuary, Ghana. Aquatic Insects, 1-19.
- Adjapong, A. O., Oppong, S. K., Nsor, C. A., Boakye, E. A., **Ashiagbor, G**., Seidu, I., & Danquah, E. (2022). Agri-driven habitat modification and small mammal species assemblage nexus in the Atewa Range and Bimpong Forest Reserves, Ghana. Trees, Forests and People, 10, 100335.
- Asante-Yeboah, E.,**Ashiagbor, G**., Asubonteng, K., Sieber, S., Mensah, J. C., & Fürst, C. (2022). Analysing Variations in Size and Intensities in Land Use Dynamics for Sustainable Land Use Management: A Case of the Coastal Landscapes of South-Western Ghana. Land, 11(6), 815.
- Ajagun, E. O., **Ashiagbor, G**., Asante, W. A., Gyampoh, B. A., Obirikorang, K. A., & Acheampong, E. (2021). Cocoa eats the food: expansion of cocoa into food croplands in the Juabeso District, Ghana. Food Security, 1-20.
- **Ashiagbor, G**., Asante, W. A., Quaye-Ballard, J. A., Forkuo, E. K., Acheampong, E., & Foli, E. (2021). Mangrove Mapping using Sentinel-1 Data for Improved Decision Support on Sustainable Conservation

and Restoration Interventions in the Keta Lagoon Complex Ramsar Site, Ghana. Marine and Freshwater Research, 72, 1–14

- **Ashiagbor, G**., Forkuo, E. K., Asante, W. A., Acheampong, E., Quaye-Ballard, J. A., Boamah, P., ... & Foli, E. (2020). Pixel-based and object-oriented approaches in segregating cocoa from forest in the Juabeso-Bia landscape of Ghana. Remote Sensing Applications: Society and Environment, 19, 100349.
- Asabere, S. B., Acheampong, R. A., **Ashiagbor, G**., Beckers, S. C., Keck, M., Erasmi, S., & Sauer, D. (2020). Urbanisation, land use transformation and spatio-environmental impacts: Analyses of trends and implications in major metropolitan regions of Ghana. Land Use Policy, 96, 104707.
- Nsor, C.A., **Ashiagbor, G**., & Danquah, E., (2019). Quantifying Recent Floodplain Vegetation Change along the White Volta River in the Northern Region of Ghana. Ghana Journal of Geography 11 (1), 159-179
- Afrifa, J., Yeboah, O. K., Gyamera, E. O., **Ashiagbor, G**., & Sorkpor, R. D. (2019). The clinical importance of the mercury problem in artisanal small-scale gold mining. Frontiers in Public Health, 7, 131.
- **Ashiagbor, G**., Amoako, C., Asabere, S. B., & Quaye-Ballard, J. A. (2019). Landscape Transformations in Rapidly Developing Peri-urban Areas of Accra, Ghana: Results of 30 years. Open Geosciences, 11(1), 172–182.
- Agyapong, E. B., **Ashiagbor, G**., Nsor, C. A., & van Leeuwen, L. M. (2018). Urban land transformations and its implication on tree abundance distribution and richness in Kumasi, Ghana. Journal of Urban Ecology, 4(1).
- **Ashiagbor, G**., & Danquah, E. (2017). Seasonal habitat use by Elephants (Loxodonta africana) in the Mole National Park of Ghana. Ecology and Evolution, 7(11).
- **Ashiagbor, G**, Forkuo, E. K., Laari, P., & Aabeyir, R. (2013). Modeling soil erosion using RUSLE and GIS tools. International Journal of Remote Sensing & Geoscience, 2(4), 1–17.