# Benjamin Apraku Gyampoh, PhD

Kwame Nkrumah University of Science and Technology (KNUST), Kumasi, GhanaTel: +233 264 748606| Twitter: @BenjiGyampoh | Email: b.gyampoh@gmail.comORCID ID: orcid.org/0000-0003-2069-7071 (<a href="http://orcid.org/0000-0003-2069-7071">http://orcid.org/0000-0003-2069-7071</a>ResearcherID:C-3816-2016 (<a href="http://www.researcherid.com/rid/C-3816-2016">http://www.researcherid.com/rid/C-3816-2016</a>)ResearchGate (R<sup>6</sup>):<a href="https://www.researchgate.net/profile/Benjamin\_Gyampoh">http://www.researchgate.net/profile/Benjamin\_Gyampoh</a>Blog:<a href="https://www.researchgate.net/profile/Benjamin\_Gyampoh">https://www.researchgate.net/profile/Benjamin\_Gyampoh</a>

#### **BIODATA**

Date of Birth:	14 September 1980
Nationality:	Ghanaian
Marital Status:	Married
Children:	2

#### **CURRENT POISITION**

- 1. Senior Lecturer: Kwame Nkrumah University of Science and Technology, Kumasi, Ghana. August 2022 Present. <u>https://www.knust.edu.gh/</u>
- 2. Editor-in-chief: Scientific African Journal. March 2018 Present. https://www.journals.elsevier.com/scientific-african

#### **EDUCATION**

•	Doctor of Philosophy (Watershed Management)	2009
	Kwame Nkrumah University of Science and Technology. Kumasi. Ghana.	
•	Bachelor of Science (Honours) (Natural Resources Management)	2004
	Kwame Nkrumah University of Science and Technology. Kumasi. Ghana.	

#### PROFESSIONAL MEMBERSHIP

2021 – Present.	Fellow, Regional Water & Environmental Sanitation Centre Kumasi (RWESCK)
2020 – Present.	Fellow, Africa Research and Impact Network (ARIN)
2019 – Present.	Member, Ghana Science Association (GSA)
2009 – Present.	Member, African Forests Forum (AFF)

#### **PROFESSIONAL EXPERIENCE**

1. Lecturer: Kwame Nkrumah University of Science and Technology, Kumasi, Ghana. January 2018 – July 2022 Summary of responsibilities as Lecturer:

Teaching and research supervision of undergraduate and graduate students. Courses taken include Watershed Management; Systems Analysis and Interdisciplinary Research; Hydrology and Groundwater Resources; and Climate Change and Water Resources Management.

#### 2. Programme Manager, African Academy of Sciences (AAS). July 2012 – January 2018

Summary of responsibilities and achievements at AAS:

- Developing AAS Strategic Plan 2013 2018 with the Executive Director which resulted in the repositioning
  of AAS for better recognition and impact globally
- Leader of climate change programmes and advocacy at AAS
- Successful development and/or implementation of programmes at the African Academy of Sciences by providing scientific and administrative leadership to ensure the programmes met scientific excellence and

were managed effectively. These programmes included CIRCLE (Climate Impacts Research Capacity and Leadership Enhancement) programme; CR4D (Climate Research for Development) programme; AESA RISE Postdoctoral Fellowship Programme

- Editor of the Academy's flagship newsletter, "Science\*Policy\*Africa". Upon appointment in 2012, the newsletter had not been published for close to 10 years. Although it was not part of my job requirements, I took it up and ensured regular publications of the newsletter every quarter from September 2012
- Successfully represented the academy at different programmes and raised the profile of the academy with my representation. Many benefits accrued to the AAS from my representations at the African Union Commission secretariat, Africa Climate Policy Centre, NEPAD, etc.
- **3.** Affiliate Lecturer. Institute of Climate Change Adaptation, University of Nairobi. Sept 2014 August 2017 Summary of responsibilities and achievements at ICCA-UoN:
  - Teaching and research supervision of graduate students. Courses taken include Climate Change and Water Resources; Adaptation strategies for water resources to climate change
  - Successfully supervised the thesis of 1 PhD student and three Masters students who have successfully graduated.
- 4. Research Officer. International Water Management Institute (IWMI), Ghana. Dec 2009 May 2012 Summary of responsibilities and achievements at IWMI-Ghana:
  - Provided effective research support to two successive IWMI Africa Directors, Dr Akissa Bahri and Dr Tim Williams.
  - Managed the programmes of the Africa's Director's office and coordinated their scientific engagements
  - Undertook research as part of project teams, wrote many research reports and published one research manuscript.

# SELECTED PEER-REVIEWED PUBLICATIONS

Journals

- Obirikorang K A, Sekey W, Amenutsuor-Vondee S, Kweku-Akagbo E, Adjei-Boateng D, Kassah J E, and Gyampoh B A (2023). Functional feeding traits and fecundity as predictors of invasive success of the introduced Nile tilapia, *Oreochromis niloticus* in Lake Bosomtwe, Ghana. Biological Invasions. https://doi.org/10.1007/s10530-023-03029-z
- Apraku, A., Gyampoh, B. A., Morton, J. F., and Karikari, A. B., (2023). Water security in rural Eastern Cape, SA: Interrogating the impacts of politics and climate change. Scientific African 19, e01493, <u>https://doi.org/10.1016/j.sciaf.2022.e01493</u>
- Ogega, O. M., Lakey, G., Opisa, R. and Gyampoh, B. A., (2022). Strengthening climate research capacity in Africa: lessons from the 'Climate impact research capacity leadership enhancement' project. Regional Environmental Change (2022) 22:135 <u>https://doi.org/10.1007/s10113-022-01997-x</u>
- Sekey, W., Obirikorang, K. A., Alimo, T. A., Soku, M., Acquah, B., Gyampoh, B. A., Adjei-Boateng, D., Asare-Ansah, O., Ashiagbor, G., and Kassah, J. E., (2022). Evaluation of the shark fisheries along the Coastline of Ghana, West Africa. Regional Studies in Marine Science (53). <u>https://doi.org/10.1016/j.rsma.2022.102434</u>
- Obirikorang, K.A., Opoku, E.N., Gyampoh, B.A., (2022). Feed Digestion, Growth and Disease Prevalence in Nile Tilapia (Oreochromis niloticus) Cultured at Different Water Exchange Rates in a Recirculating Aquaculture System. Aquaculture Studies, 22(3), AQUAST565. <u>http://doi.org/10.4194/AQUAST565</u>
- Obirikorang, K.A., Yeboah, A.A., Gyampoh, B.A., and Amanie-Adjei, S.K., (2022). Effect of road conditions on physiological stress responses and post-transportation growth and survival of Nile tilapia (Oreochromis niloticus) fingerlings, Journal of Applied Aquaculture, 34:1, 180-196, DOI: 10.1080/10454438.2020.1825269. <u>https://doi.org/10.1080/10454438.2020.1825269</u>

- Ajagun, E.O., Ashiagbor, G., Asante, W.A., Gyampoh, B. A., Obirikorang, K.A., and Acheampong, E., (2021). Cocoa eats the food: expansion of cocoa into food croplands in the Juabeso District, Ghana. *Food Security*. Springer Nature. <u>https://doi.org/10.1007/s12571-021-01227-y</u>
- Cudjoe, G.P., Antwi-Agyei, P., Gyampoh, B.A., (2021). The Effect of Climate Variability on Maize Production in the Ejura-Sekyedumase Municipality, Ghana. *Climate*, *9*, 145. https://doi.org/10.3390/ cli9100145. <u>https://www.mdpi.com/2225-1154/9/10/145</u>
- Apraku A., Morton J. F., and Gyampoh B. A., (2021). Climate change and small-scale agriculture in Africa: Does indigenous knowledge matter? Insights from Kenya and South Africa. Scientific African, Volume 12. <u>https://doi.org/10.1016/j.sciaf.2021.e00821</u>
- Asante W. A., Ahoma G., Gyampoh B. A., Kyereh B., and Asare R., (2021). Upper canopy tree crown architecture and its implications for shade in cocoa agroforestry systems in the Western Region of Ghana. Trees, Forests and People. Volume 5. Elsevier. <u>https://doi.org/10.1016/j.tfp.2021.100100</u>
- Obirikorang K. A., Sekey W., Gyampoh B A., Ashiagbor G., and Asante W., (2021). Aquaponics for Improved Food Security in Africa: A Review. Front. Sustain. Food Syst. 5:705549. DOI: 10.3389/fsufs.2021.705549
- 12. **Gyampoh B. A.,** Atitsogbui G., and Obirikorang, K. A, (2020). Understanding the neglected shellfish fishery of the Keta Lagoon, Ghana. Journal of Fisheries and Coastal Management 2 (1), 1-11.
- Ogega, M. A., Gyampoh, B. A., and Mistry, M. N., (2020). Intraseasonal Precipitation Variability over West Africa under 1.5 °C and 2.0 °C Global Warming Scenarios: Results from CORDEX RCMs. *Climate 8*, 143. DOI: 10.3390/cli8120143. https://www.mdpi.com/2225-1154/8/12/143
- Ogega, O. M., Gyampoh, B. A., Oludhe, C., Koske, J., and Kung'u, J. B., (2020). Building on foundations for climate services for sustainable development: A case of coastal smallholder farmers in Kilifi County, Kenya. Climate Services 20 (2020) 100200. <u>https://doi.org/10.1016/j.cliser.2020.100200</u>
- Obirikorang K. A., Ansong M., Gyampoh B. A., and Attu, G. A-T, (2020). First report of aquaculturemediated introduction of the Nile tilapia, *Oreochromis niloticus* (Linnaeus, 1758) into Lake Bosomtwe, Ghana. *BioInvasions Records* 9(4): 834–841, https://doi.org/10.3391/bir.2020.9.4.17
- Obirikorang, K, A., Adu-Yeboah, E., Gyampoh, B. A., and Amanie-Adjei, S. K., (2020). Effect of road conditions on physiological stress responses and post-transportation growth and survival of Nile tilapia (*Oreochromis niloticus*) fingerlings. Journal of Applied Aquaculture. https://doi.org/10.1080/10454438.2020.1825269
- Obirikorang K. A., Ofori, A. G. M. and Gyampoh, B. A., (2020). Dominance hierarchies within different size groupings of Nile tilapia (Oreochromisniloticus) and effects on growth and physiological responses, African Zoology, DOI: 10.1080/15627020.2020.1756909. <u>https://doi.org/10.1080/15627020.2020.1756909</u>
- Saalu F, Oriaso S, and Gyampoh B, (2020). "Effects of a changing climate on livelihoods of forestdependent communities: Evidence from Buyangu community proximal to Kakamega tropical rain forest in Kenya", International Journal of Climate Change Strategies and Management, Vol. 12 No. 1, pp. 1-21. <u>https://doi.org/10.1108/IJCCSM-01-2018-0002</u>
- Maina J, Wandiga S, Gyampoh B, Charles KKG (2020) Assessment of Land Use and Land Cover Change Using GIS and Remote Sensing: A Case Study of Kieni, Central Kenya. Journal of Remote Sensing and GIS. 9:270. DOI: 10.35248/2469-4134.20.9.270
- 20. Maina J, Wandiga S, Gyampoh B and Gachene C. K., (2020). Effects of Supplemental Irrigation on Crop Yields: Case Study Kales (Brassica Oleracea) Crop. Journal of Ecological Engineering. Volume 21, Issue 2. DOI: https://doi.org/10.12911/22998993/116348. http://www.jeeng.net/Effects-of-Supplemental-Irrigation-on-Crop-Yields-Case-Study-Kales-Brassica-Oleracea,116348,0,2.html

- 21. Maina J, Wandiga S, **Gyampoh B,** and Gachene, C. K., (2019). Analysis of Average Annual Rainfall and Average Maximum Annual Temperature for a Period of 30 years to Establish Trends in Kieni, Central Kenya. Climatol Weather Forecasting 7, 249
- Gyampoh B. A., (2019). Peer Review Report For: Assessing the economic impact of climate change in the small-scale aquaculture industry of Ghana, West Africa [version 2; peer review: 2 approved]. AAS Open Res 2019, 1:26 (<u>https://doi.org/10.21956/aasopenres.14095.r27222</u>). https://aasopenresearch.org/articles/1-26/v2#referee-response-27222
- 23. Williams T. O., **Gyampoh B**, Kizito F, and Namara E, (2012). Water implications of large-scale land acquisitions in Ghana. Water Alternatives 5(2): 243-265.
- 24. Idinoba M, Kalame FB, Coulibaly Y, Nkem J, Gyampoh B, and Lartey S, (2011). Forest goods vulnerability to climate change in West Africa: voices from local communities on medicinal plants and prescribed actions for adaptation. In: Geldenhuys C.J, Ham C, & Ham H (eds.), (2011). Sustainable Forest Management in Africa: Some Solutions to Natural Forest Management Problems in Africa. Proceedings of the Sustainable Forest Management in Africa symposium. Stellenbosch, 3 7 November 2008. ISBN: 978- 0-7972-1345-6
- 25. Idinoba M, Nkem J, Kalame FB, Tachie-Obeng E, and **Gyampoh B**, (2010). Dealing with reducing trends in forest ecosystem services through a vulnerability assessment and planned adaptation actions. African Journal of Environmental Science and Technology Vol. 4(7), pp. 419-429, July 2010 Available online at http://www.academicjournals.org/AJEST ISSN 1991-637X ©2010 Academic Journals
- 26. **Gyampoh BA**, Amisah S, Idinoba M, Nkem, J, (2009). Utiliser le savoir traditionnel pour s' adapter aux changements climatiques dans le Ghana rural. FAO,[En ligne] URL: http://www.fao. org/docrep/011/i0670f/i0670f14.htm
- Gyampoh B.A., Amisah S., Idinoba M., and Nkem, J., (2009). Using traditional knowledge to cope with climate change in rural Ghana. Unasylva No. 231/232, Vol 60. FAO. ftp://ftp.fao.org/docrep/fao/011/i0670e/i0670e14.pdf
- Amisah S., Gyampoh A. B., Sarfo-Mensah P, and Quagrainie K. K., (2009). Livelihood Trends in Response to Climate Change in Forest Fringe Communities of the Offin Basin in Ghana. J. Appl. Sci. Environ. Manage. Vol. 13(2) 5 – 15. JASEM ISSN 1119-8362. www.bioline.org.br/ja
- Gyampoh B. A., Idinoba M, and Amisah, S, (2008). Water Scarcity under a changing climate in Ghana: options for livelihoods adaptation. Development, 51, 415–417. 1011-6370/08 <u>www.sidint.org/development</u>
- Prakash, S, Asiseh, F, Boateng, FS, Gyampoh, B. A., Poels, E, Ros B., and Wieriga, P, (2004). Potential of Ecotourism Development of the Lake Bosumtwi Basin - a case study of Ankaase in the Amansie East District, Ghana. SEFUT Working Paper No: 15 Freibourg, May 2005. Issn 1616 – 8062

Books and Book Chapters

- Hassanien A. E., Darwish, A., Gyampoh B., Abdel-Monaim A. T., Anter A. M., (Eds), (2021). The Global Environmental Effects During and Beyond COVID-19; Intelligent Computing Solutions. Studies in Systems, Decision and Control. Volume 369. Springer. <u>https://doi.org/10.1007/978-3-030-72933-2</u>
- Gyampoh B. A., (2018). Promoting Research in Sustainable Energy in Africa The CIRCLE Model. In: Sustainable Hydropower in West Africa - Planning, Operation, and Challenges. Academic Press. Elsevier. <u>https://doi.org/10.1016/B978-0-12-813016-2.00002-2</u>
- Gyampoh B. A., and Asante W. A., (2011). Mapping and Documenting Indigenous Knowledge in Climate Change Adaptation in Ghana. Africa Adaptation Programme (AAP), United Nations Development Programme (UNDP). DOI: <u>10.13140/RG.2.1.4818.6640</u>
- 4. **Gyampoh B. A.**, Amisah S, Idinoba M., and Nkem, J., (2011). The sustainable forest management puzzle: Policies, legislation, deforestation and the climate change issue in Ghana. In: Geldenhuys C.J, Ham C, &

Ham H (eds.), 2011. Sustainable Forest Management in Africa: Some Solutions to Natural Forest Management Problems in Africa. Proceedings of the Sustainable Forest Management in Africa symposium. Stellenbosch, 3 – 7 November 2008. ISBN: 978-0-7972-1345-6

 Idinoba, M., Nkem, J., Kalame, F. B., and Gyampoh, B., (2008). A framework for vulnerability assessment of non-timber forest goods for planning adaptation to climate change and variability in West Africa. In: International conferences on adaptation of forests and forest management to changing climate with emphasis on forest health: A review of science, policies and practices (pp. 98). IUFR, FAO and SLU.

### SELECTED GRANTS AND AWARDS

- 2021 2023. Principal Investigator. Developing Hydrology Quality Index for assessing Mangrove Ecosystem Health Status in the Keta Lagoon Complex of Ghana. PAPBio C1 – Mangroves Grant Agreement 2021 SUB 1030. IUCN, International Union for Conservation of Nature and Natural Resources (IUCN).
- 2011. Dissertation Initiative for the Advancement of Climate Change Research (DISCCRS) Fellowship. From the U.S. National Science Foundation (NSF) and the U.S. National Aeronautics and Space Administration (NASA).
- 2006-2008. Research Fellowship Tropical Forests and Climate Change Adaptation Programme (TroFCCA). Center for International Forestry Research (CIFOR).

## SELECTED PROFESSIONAL ASSIGNMENTS

- 2022. Mapping study for Climate Adaptation and Resilience (CLARE) programme for Western Africa; Funded by UK's Foreign, Commonwealth & Development Office (FCDO) and the International Development Research Centre (IDRC) in Canada.
- 2021. Evaluation of Africa Prize programme of the Royal Academy of Engineering (RAEng). Member of Cloud Chamber Limited (UK) team evaluating the RAEng Africa Prize for Engineering. Tasks included Data and programme documentation reviews; Africa Prize online survey and follow up interviews (where required); Academy and stakeholder consultation interviews; Africa Prize and Alumni case studies; Reporting and presentation for all stages of the research; Attending team meetings as required
- 2021. Development of long-term low emission and climate resilient agricultural development strategic document for Ghana. MOFA CSA coordinator, CCAFS and AGNES
- 2021. Assessment on the effect and possibly the impact of the covid-19 and the response measures (protocols) on the implementation of Ghana's Nationally Determined Contributions. Ministry of Environment Science Technology and Innovation (MESTI), Government of Ghana.
- 2020. Promoting Climate Finance to support Agriculture through Nationally Determined Contributions (NDCs) Processes in ACP countries. The Technical Centre for Agricultural and Rural Cooperation (CTA). The Netherlands
- 2020. Proforest Limited (Ghana), Socioeconomic and ecological baseline assessment of the Asunafo-Asutifi Cocoa Hotspot Intervention Area (HIA) in the Ahafo Region (2020). (Lead Consultant).
- 2019. Evaluation of Resilient Futures Programme of the Royal Society. Member of Cloud Chamber Limited (UK) team evaluating the implementation of Resilient Futures programme. Tasks included Development of programme theory of change; M&E Framework development; Data and programme documentation reviews; Attendance at AAS FLAIR Meeting in 2019; Impact and programme data reviews; Impact case studies; Attending team and project meetings in the UK, as required.

- 2013. Member. African Science Technology and Innovation Indicators (ASTII) Initiative Working Group on Policy Briefs. ASTII.
- 2011. Consultant and Lead Researcher. Indigenous knowledge and Climate Change Adaptation. Africa Adaptation Programme (AAP) on Climate Change, United Nations Development Program (UNDP).
- 2011. Consultant. "Climate Change and Disaster Risk Reduction" and "Taking Advantage of Opportunities in Climate Change". Environment Protection Agency, Ghana.
- 2009. Consultant. Ecosystem and Environmental Services. Centre for International Forestry Research (CIFOR), Ouagadougou, Burkina Faso.