**ALBERT BANUNLE, PH. D**

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1. **PERSONAL SUMMARY**

**1(a). *Research Interest and Experience***

I am a university lecturer and multidisciplinary environmental scientist with speciality in climate-smart agroecological techniques, circular economy, bioresource valorisation and waste management practices. I have about a decade of research and consultancy experience working on international and local development projects by reputable organisations such as USAID, WFP, UNDP, AU, COL among others. I have primary laboratory/experimental research and social survey experience applied in the field of agriculture, environmental science, management and human security in Ghana and other African countries. I also have over 5 years of teaching and community service experience at the University level and have supervised and mentored many of undergraduate and postgraduate students.

**1(b). *Educational Qualifications***

**|2018 -2023| *Ph.D. Environmental Science,***

**Kwame Nkrumah University of Science and Technology, Kumasi (Ghana).**

**Thesis*:*** *Harnessing the Bioresource Potential of Biowaste and Aquatic Invasive Plants in the Owabi Catchment in the Ashanti Region, Ghana.* This study involves investigating the use of household solid organic waste and aquatic invasive plants as feedstock to produce compost to improve agricultural productivity. The research also involves the use of cost-benefit analysis (CBA) to determine the economic viability of composting biomass. I produced 4 peer-reviewed publications, two poster presentations, an international conference presentation (oral).

**|2020 -2021|*****M.Sc. Environmental Partnership Management (Distinction),***

**University of Aberdeen, Aberdeen (UK).**

**Thesis:***Determinants of Pro-environmental Behaviour of Urban Youth in Ghana.* This study was based on a cross-sectional survey conducted among over 250 youth in Ghana online, using social media as the recruitment platform. I published a peer-reviewed article in a reputable journal from this research work.

**|2014 -2017| *M.Sc. Environmental Science (Overall Grade A),***

**Kwame Nkrumah University of Science and Technology, Kumasi (Ghana).**

**Thesis:***An Assessment of the Effects of the Ahafo Mines Operations on the Tano River and Livelihood in the Asutifi North District in the Brong Ahafo Region of Ghana.* I conducted a socioeconomic survey and laboratory analysis of water samples from areas of the mine development to determine the impact on water quality and livelihood respectively.I produced a peer-reviewed publication from this research work.

**|2014 -2017|*****B.Sc. Agriculture with Agricultural Economics Major (2nd Class Upper),***

**Kwame Nkrumah University of Science and Technology, Kumasi (Ghana).**

**1(c). *Fellowships, Scholarship and Awards/Honour***

**|2018-2023| DANIDA *Building Stronger Universities* (BSUIII)** for Doctor of Philosophy Degree at the Kwame Nkrumah University of Science and Technology with Secondment Fellowship at the Aarhus University in Denmark.

**|2020-2021|** **Commonwealth Shared Scholarship** awarded by the UK Foreign and Commonwealth Development Office (FCDO) and the University of Aberdeen to study M.Sc. Environmental Partnership degree in the UK.

**|2020-2021|** **Scottish Innovative Student Award (SISA III-INNOVATION CHAMPION),** awarded by the Scottish Institute for Enterprise (SIE**)** for demonstrating competence in self-awareness and self-efficacy, flexible and adaptable, seeing different perspectives, opportunity recognition, creative problem-solving collaboration, communication, and research.

1. **EMPLOYMENT**

***2(a). Professional Work Experience***

**2022-Date**| ***Lecturer*,**

**Kwame Nkrumah University of Science and Technology, Kumasi (Ghana).**

**Duties and Accomplishments**: I have been teaching undergraduate and postgraduate classes of various every semester. I have also been conducting research and writing scholarly articles for publication in academic journals. I also developed syllabi, lesson plans and lecture materials for courses taught. I also evaluate student performance through tests, quizzes, presentations, projects, or other assessments and also mentor undergraduate and graduate students with their research projects and dissertations. I also actively engage in departmental activities such as curriculum development, faculty meetings, advising sessions and collaborate with other faculty members in writing publications and grant proposals.

|**2020-2021**| ***Knowledge Hub Coordinator,***

**The Commonwealth Scholarship Commission (CSC), UK**

**Accomplishments***:* I served as one of theprimary contact persons for Commonwealth Scholars conducting research or studying programmes related to strengthening resilience and response to crises in the UK. I also collaborated with three (3) other coordinators to provide relevant engagement posts, share opportunities, and organise workshops for Commonwealth Scholars on strengthening resilience and response to crises.

**|2019-2020|** ***Graduate Assistant,***

**Kwame Nkrumah University of Science and Technology, Kumasi (Ghana**

**Accomplishments**: I was actively engaged in providing administrative and research assistance to the Department of Environmental Science of the KNUST. I set up projectors and organised teaching materials for lecturers in the department and also reviewed and guided undergraduate students to write their projects, complete them successfully and graduate.

**|2017-2019|** ***Demonstrator,***

**Institute of Distance Learning of KNUST (IDL-KNUST)**

**Accomplishments***:* Taught a class of at least 20 postgraduate students a course on *Advance Research and Statistics* annually from 2017 to 2019. Organised practical demonstration sessions for postgraduate students on how to use SPSS, Stata and Jamovi for their thesis data analysis. Guided over 20 students annually through the analysis and interpretation of data for their thesis. Ran the Statistic lab at the E-learning Center of the IDL-KNUST where various postgraduate students sought help with their thesis data analysis, interpretation and reporting.

**2(b) *Research Projects Worked On And Accomplishments***

**|2018-2023| *Field Researcher/PhD Student*,**

**DANIDA sponsored the Building Stronger Universities (BSUIII) programme** on *Enhancing the Bioeconomic Potential of Bioresources from The Owabi Catchment.*

**Accomplishments***:* I developed innovative strategies for harnessing biowaste and invasive plants as bioresources for the production of high-quality compost for agricultural use. I also conducted field research to test the quality of compost produced and the effect on grain yield in tropical climates. I disseminated findings from research through the production of four (4) peer-review publications, one international conference presentation and a lunch seminar at Aarhus University. My accomplishment also includes organising and coordinating stakeholder workshops bringing together 50 farmers, 10 local assembly staff, staff of Ghana Water Company Limited and interdisciplinary academics to discuss and organise training on compost production using biowaste and invasive plants in the Owabi catchment.

**|2020-2020| *Researcher****,*

**The Commonwealth Secretariat and JET Educational Service** project on *the Impact of COVID-19 on Education Systems in the Commonwealth.*

**Accomplishments:** *I worked* with nine (9) other researchers across different commonwealth countries on the preparedness and resilience of education systems to COVID19 and future pandemics. *I* led the design of the project methodology and data collection strategies. I also provided *an* analysis of Ghana Government policy and response strategy to Covid19 with a focus on building resilience in the education system against future pandemics and contributed to the compilation of the final report of the research project and its publication.

**|2018-2018| *Field Supervisor*,**

**World Food Programme** sponsored project on *Asset Creation for Resilience project by the World Food Programme.*

**Accomplishments:**I participated in and contributed to the success of a 3-day workshop for the validation of a questionnaire and training of enumerators for fieldwork. I successfully led a team of 4 teaching and research assistants for a two-week data collection exercise in the Upper West Region of Ghana, managing the budget, resolving conflict, and ensuring quality work. I produced a comprehensive report on the evaluation of the assets created by WFP for poverty evaluation with recommendations and a roadmap for the way forward.

**|2013-2014| *Associate Research Consultant,***

**Commonwealth of Learning (COL) and General Agricultural Workers Union (GAWU)** sponsored a project *on baseline survey for the implementation of Lifelong Learning for farmers (L3F) in Ghana.*

**Accomplishments***:* I planned and carried out a baseline survey on Lifelong Learning for Farmers (L3F) in the Northern region of Ghana. I analysed data collected and prepared a report with a roadmap used in the implementation of the L3F project in Ghana. I carried out a further study on the learning needs assessment of self-help groups (SHGs) of farmers in the Northern Region of Ghana and provided reports and recommended training needs for SHGs of farmers in Ghana.

1. **SKILL AREAS AND TECHNICAL COMPETENCE**

**3(a). *Key Demonstrable Professional Skills***

• Teaching and Research

• Quantitative and Qualitative Data analysis

• Grant proposal and report writing

• Preparation of policy brief

• Project & Partnership Management

• Communication and interpersonal relationship

**3(b). IT Skills And Statistical Analysis Tools**

• Proficiency in MS Office

• R-Studio for descriptive and inferential analysis

• Stata for econometric and panel/time series data analysis

• SPSS, Statgraphics, Minitab and Jamovi for survey data analysis

• AMOS GRAPHICS for structural equation modelling (SEM)

• ArcGIS for mapping.

1. **RESEARCH OUTPUT AND CONTRIBUTION TO KNOWLEDGE**

**4(a). *List Of Publications***

1. ***Published articles.*** 
   1. **Banunle, A**. (2024). Determinants of pro-environmental behaviour of urban youth in Ghana. *Environment, Development and Sustainability*, 1-19.
   2. Amankwah, J, Damien, D. and **Banunle, A.** (2024). Determinants of Forest Law Compliances Among Inhabitants of Local Communities Surrounding Tropical Wildlife and Forest Reserve in Ghana. *Journal Of Cleaner Production*, 443 (2024) 140964
   3. **Banunle, A.,** Fei-Baffoe, B., Miezah, K., Ewusi-Mensah, N., Jørgensen, U., Aidoo, R., ... & Abaidoo, R. C. (2023). Economic Viability Assessment of Small-Scale Biomass Composting Project Within a Developing Country Context. *Circular Economy and Sustainability*, 1-21.
   4. **Banunle, A**., Fei-Baffoe, B., Miezah, K., Ewusi-Mensah, N., Jørgensen, U., Aidoo, R., ... & Abaidoo, R. C. (2023). Valorisation of Biowaste and Aquatic Invasive Plants Through Compost Production for Agricultural Use. *Waste and Biomass Valorization*, 1-13.
   5. **Banunle, A.,** Fei-Baffoe, B. Miezah, K. Ewusi-Mensah, N., Jørgensen, U., Aidoo, R. Amoah, A., Abaidoo, R. C. and Agbeshie, A. A. (*2021*). Utilisation Potentials of Aquatic Invasive Plants in the Owabi Dam in the Ashanti Region of Ghana. *BioResources 16(2), 3075-3095.*
   6. Agbeshie, A. A., Adjei, R., Anokye, J., & **Banunle, A.** (2020). Municipal Waste Dumpsite: Impact on soil properties and heavy metal concentrations, Sunyani, Ghana. *Scientific African*, e00390.
   7. Otchere, K. G., **Banunle, A.,** Yankyera, O. K and Bediako, E (2020). Effect of RTIMP's Commercialisation of Cassava on Household Food Security in the Cape Coast Metropolis in the Central Region of Ghana. *Agricultural And Food Science Journal Of Ghana (AFSJG).*
   8. **Banunle A**, Fei-Baffoe B, Otchere KG (2018). Determination of the Physico-Chemical Properties and Heavy Metal Status of the Tano River along the Catchment of the Ahafo Mine in the Brong-Ahafo Region of Ghana. *J Environ Anal Toxicol 8: 574*.
2. **Book Chapter**
3. Gaspard-Richards, D., **Banunle, A.,** Kuttoh, N., Mndalasini. P., Osuolale, O., Sebape, K., Shah, P., Tomlinson, J., Walker, C. and Wambwa, D. (2021)"*Preparedness and Resilience of Education Systems to Address Multiple Threats: Pandemics, Hurricanes, Drought, Food Insecurity" in The Impact of COVID-19 on Education Systems in the Commonwealth*. The Commonwealth Secretariat, London: UK.
4. Agbeshie, A. A., Adjei, I., Adjei, R., Anokye, J., & **Banunle, A.,** Novor, S. and Khalid, **A. A.** (2020).Impact of Untreated Liquid Waste Disposal on Water Quality in a Tropical Region, In *International Research in Environment, Geography and Earth Science, Volume 3:* Print ISBN: 978-93-90206-35-3, eBook ISBN: 978-93-90206-38-4.
5. **Manuscript under review**
6. **Banunle, A.** (2024) Bioresources utilisation in Circular Bioeconomy: Overview of limitations and prospects of valorisation technologies (Cleaner and Circular Bioeconomy)
7. **Banunle, A.** Fei-Baffoe, B., Miezah, K., Ewusi-Mensah, N., Jørgensen, U., Aidoo, R. Amoah, A., Andersen, M.N., Manevski, K., Addo-Fordjour, P and Abaidoo, R.C. (2023). Potential of aquatic invasive plants as bioresources for climate resilient and sustainable livelihood transition. *Scientific African*
8. Kpenekuu, F., Antwi-Agyei, P., Nimoh, F., Guodaar, L., **Banunle, A**., Baffour, F. A., Atta-Aidoo, J. and Agyekum, T.P (2024). A Cost-Benefit Analysis of Climate-Smart Agriculture Interventions in Semi-Arid Ghana*. Regional Sustainability*

**4(b) Conferences/Seminars And Workshops Attended**

**Conference participated in**

1. Building Stronger Universities (BSU III) International Conference on Climate Change Resilience, Adaptation and Sustainable Rural Transformation (Kumasi, Ghana), 4th and 5th October, 2022.

**Papers Delivered at Conferences/Seminars/Workshops**

1. **Banunle, A.,** Fei-Baffoe, B. Miezah, K. Ewusi-Mensah, N., Jørgensen, U., Aidoo, R. Amoah, A., Abaidoo, R. C. and Agbeshie, A. A. (*2021*).*Compositional Analysis and Evaluation of Bioresources Potential of Aquatic Invasive Plants and Biowaste.* Presented at BSUIII International Conference on Climate Change Resilience, Adaptation and Sustainable Rural Transformation (Kumasi, Ghana), 4th and 5th October 2022.
2. **Banunle, A.** (*2021*).*Harnessing Bioresources for Agricultural Productivity Improvement In Ghana*. Lunch Seminar, Aarhus University, (Foulum campus, Denmark), 26 January 2023.

**4(b) Professional Members**

1. International Solid Waste Association (ISWA)
2. Ghana Science Association (GSA)
3. International Development Economics Associates (IDEAs)
4. Circular Economy Club (CEC)
5. **REFEREES**
6. **Prof. B. Fei-Baffoe**

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