

God'sgift N. Chukwuonye M.Sc.

Arizona, United States

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EDUCATION

University of Arizona, Tucson, AZ

Expected Graduation Date: July 2025

Research Advisor: Dr Monica Ramirez-Andreotta

PhD in Environmental Science

Current CGPA: 4.0

University of Edinburgh, United Kingdom

Graduation Date: August, 2020

Research Topic: Gender Responsiveness of Climate Smart Agricultural Interventions in Ethiopia.

Dissertation Supervisor: Dr. Sam Staddon

Master of Science in Environment and Development

University of Benin, Benin City, Nigeria.

Graduation Date: November, 2017

Research Topic: Plant Productivity Assessment of Copper Polluted Land Using *Chromolaena Odorata*.

Dissertation Supervisor: Dr. Beckley Ikhajagbe

Bachelor of Science (Honors) in Plant Biology and Biotechnology

G.P. A: 4.84/5.0

ABSTRACTS

Chukwuonye, G.N and Ramirez-Andreotta M.D (2022) *Groundwater Arsenic Contamination and its Health Effects on the Arizona-Mexico Border. University of Arizona Earth Week, Envision.*

Chukwuonye, G.N., Palawat, K., Root, R., and Ramirez-Andreotta M.D (2022) Metals in Rooftop Harvested Rainwater from Environmental Justice Communities: Contaminant Patterns and Stakeholder Impacts. Environmental Quality Poster Session, ASA, CSSA and SSSA Conference, Baltimore, Maryland.

RESEARCH EXPERIENCE

Graduate Research Assistant | Ramírez-Andreotta Integrated Environmental Science and Health Risk Lab, University of Arizona

2022 - present

a. Understanding the Environmental Health Impacts of Inorganic Contaminants on the Arizona-Mexico Border Communities

- Qualitative and quantitative research design including creating environmental and health surveys using Qualtrics and recruitment of community members for research.
- Analysis of pH, EC, and dissolved metals concentration and arsenic speciation of water samples
- Creating of geolocation maps to visualize groundwater monitoring wells in Arizona.
- Qualitative data analysis using basic visualization on Qualtrics and thematic analysis.
- Performed data science techniques using R Programming to understand trends in data.

b. Analysis of Five Analytes in Harvested Rainwater Samples collected in Four Environmental Justice Communities

- Descriptive statistics and exploratory data analysis of Al, Cd, Cu, Mn, and Zn in harvested rainwater collected over three years
- Utilizing a linear mixed model to explain factors contributing to analytes concentration in the four communities.

c. Validation of DIY Field Method for Measuring Inorganic Arsenic in Soil

- Measured the invitro bioaccessibility assay (IVBA) of arsenic in contaminated soils in anaerobic conditions simulating the conditions of the human stomach.
- Analysed the IVBA arsenic concentration compared to the total arsenic concentration and the field arsenic DIY kits.

Manuscript-in-preparation: Walls, D., Rodríguez-Oroz, D., Root, R., Chukwuonye, G.N., Alquatta, Z., and Ramírez - Andreotta, M.D. A Field Method for Measuring Inorganic Arsenic in Soil.

Postgraduate Researcher | Farm Africa, Ethiopia

2020

- Conducted a gender analysis and critique of current practices in climate smart agricultural interventions in rural Ethiopia.

Graduate Research Intern | Forestry Department, University of Ibadan

2018 – 2019.

- Worked on the utilization of forest trees for phytoremediation of heavy metals.
- Designed new products using wood, forest trees and by-products.

**Undergraduate Research Intern | National Centre for Energy and Environment
University of Benin**

2018

- Improved on research focused on the conversion of non-food energy crops and "food waste" to biofuel to produce clean energy.
- Led the analysis and characterisation of biofuels and the compression into cylinders for commercialization.
- Collaborated with indigenous communities to ensure clean energy access.

**Undergraduate Research Internship | Environmental Sustainability and Biotechnology
Research Laboratory, University of Benin**

2016 – 2017

- Worked on the phytoremediation of high levels of copper using *Chromolaena odorata* and other microbial techniques for environmental clean-up.
- Analysed the biochemical, nutrient and antioxidant analysis of soil and plants samples to determine remediation capacity of the test plant.

TEACHING EXPERIENCE

Graduate Teaching Associate | University of Arizona

2021 – 2022

Worked as a teaching assistant to Dr. Maximillian, where we taught and evaluated a general Environmental Science class ENV5170A, 2 sections per semester with approximately 175 student per enrolment.

- Responsible for instructing students on academic research methods, standards of academic writing, English language grammar, and the drafting process
- Participated in the assessment process using a variety of methods and techniques and provided effective, timely, and appropriate feedback to students to support their learning
- Contributed to the development of appropriate teaching materials to ensure content and methods of delivery meet learning objectives

Academic Tutor | Plant Biology and Biotechnology Department, UNIBEN, Nigeria

2014 – 2017

- Tutored and mentored undergraduates in lower levels by organizing extra tutorials and recorded over 80 % average success yearly.
- Prepared academic materials and organized tutorial for colleagues and helped them improve academic performance

PROFESSIONAL EXPERIENCE

Postgraduate Intern | MasterCard Foundation, University of Edinburgh

2020- 2022

- Oversaw the welfare of one hundred and twenty Mastercard Scholars from Africa at the University of Edinburgh.
- Designed and implemented student-led projects to ensure adaptation and thriving of African students on campus and improve the Scholars' program.
- Focused on promoting the mental health and overall wellness of scholars.

Social Media Representative | School of Geosciences, University of Edinburgh

2019 – 2020

- Managed the school's social media presence by regularly updating the website, various social media accounts across all platforms, monitored comments and attended to students' enquiries.

- Curated content on the school blog about personal experiences and events around the school that appealed to the student's community.

SKILLS AND COMPETENCIES

<u>Professional Skills</u>	Environmental assessment, Contaminated Site clean-up, Hazardous waste remediation, Compliance inspection, Standard Operating Procedure, Qualitative and quantitative research expertise, participatory research, Participatory Research approaches, Quantitative research, Data analysis, Project management and Proposal writing.
<u>Laboratory Skills</u>	Ground water testing, Spectrophotometry, Microscopy, Protein Separation, Microbial and Plant tissue Culture, Nutrients analysis, Basic Microbiological Techniques, Biological techniques, total and dissolved metals, pH/EC, lab report composition, Environmental sample analysis, IVBA, ICPMS.
<u>IT Skills</u>	ARCGIS, Tableau, NVivo, R, SPSS, Excel, Microsoft packages, Infographic design, social media marketing, Web development (HTML and CSS), Corporate blogging and graphic design.
<u>Personal Strength</u>	Critical thinking, Leadership Skills, Team management, Communication skills, Networking expert, Collaboration and Time management.

CONFERENCES ATTENDED

1. ASA, CSSA and SSSA annual conference, Baltimore, Maryland	2022
2. Enabling Interdisciplinary Team and Team Science, Logan, Utah	2022
3. Science, Management and Policy Exchange, Logan, Utah	2022
4. Critical Zone Science Meeting, Golden, Colorado	2022
5. Natural Resources, the Extractive Industry and Environmental Sustainability: Imperative Nexus in the Achievement of Sustainable Development, Benin City, Nigeria.	2022
6. American Geophysical Union (AGU) Fall Meeting, NOLA	2021
7. Botanical Society of Nigeria Annual Conference, Ibadan, Nigeria	2016

AWARDS

1. Southern Arizona Environmental Management Society Scholarship	2022
2. Roots for Resilience Data Science Program	2022
3. Natural Resource Workforce Development Fellowship, Southwest Climate Adaptation Science Centre	2022
4. University of Arizona Carson Scholars Program	2022
5. Impact Leaders Fellowship, University of Arizona	2022
6. Data Science Fellowship, University of Arizona	2022
7. Edinburgh Award for Transformative Leadership	2020
8. Erasmus Badge for Food Waste Mitigation Research.	2020
9. MasterCard Foundation Scholarship University of Edinburgh	2019
10. Award of Excellence, Sustainable Development Group Community service, Nigeria	2019
11. Best Graduating Student Department of Plant Biology and Biotechnology, UNIBEN	2017

LEADERSHIP AND COMMUNITY INVOLVEMENT

1. Community Engagement Effort, Miami Arizona	2022
2. <i>Science Educator</i> Naco Middle School	2022
3. <i>Volunteer</i> Arizona Soil Shop	2022
4. <i>Judge</i> EnVision, University of Arizona Earth Week	2022

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| 5. <i>Vice President African Graduate Students Association, University of Arizona</i> | 2022 – present |
| 6. <i>Science Education Naco Elementary School</i>
Provide science education to middle school children in Naco, Arizona. | 2022 |
| 7. <i>Community Engagement Dewey-Humboldt, Arizona</i> | 2021 |
| 8. <i>Mentor First Class Leaders Network (FCLN)</i>
Providing one-to-one mentorship to young African graduates passionate about higher education and providing guidance to make their dreams come true. | 2020 –Present |
| 9. <i>Team Lead Network for Intercultural Competence to Facilitate Entrepreneurship</i>
Worked on a multicultural team of five on an Erasmus project to provide innovative and entrepreneurial solutions to food waste. | 2020 |
| 10. <i>Participant Students as Change Agents</i>
Worked on a team of five within the university to brainstorm on the creation of pathfinding cities towards ending violence among children and women. | 2019 |
| 11. <i>Volunteer Sustainable Development Group</i>
Worked with the community at the local level including market women and school children; teaching them about sustainability, sustainable resource use and care for the environment. | 2018 - 2019 |

Professional Affiliations

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| 1. Member Southern Arizona Environmental Management Society | |
| 2. Member American Geophysical Union | 2021 – present |
| 3. Member International Environmental Forum | 2020 - present |
| 4. Member Nigerian Environmental Society | 2016 – Present |
| 5. Member Botanical Society of Nigeria | 2015 – Present |