# Idowu Kunlere

Phone: 2058872757 | Email: <u>ikunlere@udel.edu</u> | LinkedIn: <u>https://www.linkedin.com/in/idowu-kunlere/</u>

#### PROFESSIONAL SUMMARY

 Dynamic and results-driven doctoral student and sustainability executive with over 10 years of expertise in driving transformative sustainability initiatives. Renowned for spearheading regulatory compliance programs, advancing energy transition and decarbonization efforts, and optimizing carbon market opportunities. Demonstrated success in compliance monitoring and assisting manufacturing companies to track carbon emissions and achieve regulatory compliance. Adept at leveraging data analytics and research to shape policy decisions and enhance operational efficiencies, positioning organizations at the forefront of sustainable development.

#### EDUCATION

- Ph.D. Energy and Environmental Policy | University of Delaware, USA | July 2026 (In-View).
- Master of Public Administration (MPA) | National University of Singapore, Singapore | June 2021.
- Postgraduate Diploma, Environmental Management | Technical University Dresden, Germany | July 2020.
- Master of Science, Environmental Microbiology | University of Ibadan, Nigeria | Apr. 2015.
- Bachelor of Science, Microbiology | Obafemi Awolowo University, Nigeria | Jan. 2011.

#### <u>SKILLS</u>

 Strategic Energy Policy Development | Advanced Environmental Policy | Data Analytics with Python | Machine Learning Applications in Sustainability | Comprehensive Environmental Impact Assessment | Environmental Monitoring and Compliance | Proficient in Microsoft Office Suite (Word, PowerPoint) | Advanced Quantitative and Qualitative Analysis | GIS | Expert Policy Analysis | Technical Report Writing | Executive Leadership | Advanced Project Management

#### **PROFESSIONAL EXPERIENCE**

National Environmental Standards and Regulations Enforcement Agency (NESREA), Nigeria.

Principal Scientific Officer | NESREA Southwest Zonal Hqrs., Ibadan, Oyo State, Nigeria | Jan. 2023 – Present.

- Designed and implemented strategic environmental compliance frameworks, resulting in operational efficiency and a 20% increase in regulatory compliance rates among regulated entities.
- Facilitated cross-functional teams to streamline processes, enhancing organizational responsiveness to environmental violations and reducing response times by 35%.

Senior Scientific Officer | NESREA Southwest Zonal Hqrs., Ibadan, Oyo State, Nigeria | Jan. 2020 – Dec. 2022.

- Led interdisciplinary teams in the comprehensive monitoring and analysis of carbon emissions across three states, achieving a 15% reduction in reported emissions through targeted compliance strategies.
- Coordinated with local and national stakeholders to align local environmental policies with global standards, enhancing regulatory compliance and environmental stewardship.

Scientific Officer I | NESREA Southwest Zonal Hqrs., Ibadan, Oyo State, Nigeria | Jan. 2017 – Dec. 2019.

- Guided companies and accredited consultants during environmental impact assessment processes, reducing review times by 40% and ensuring sustainable development practices within the manufacturing sector.
- Designed and facilitated training programs for over 500 industry professionals, improving their knowledge and adherence to national environmental regulations.

Scientific Officer II | NESREA, Ekiti State Field Office, Ado-Ekiti, Ekiti State, Nigeria | July 2013 – Dec. 2016.

- Pioneered awareness initiatives promoting clean energy, resource optimization, and climate action, resulting in a 30% increase in the adoption of sustainable practices across the region.
- Successfully managed environmental compliance audits for numerous multinational companies, facilitating their adherence to stringent environmental regulations.

#### LEADERSHIP EXPERIENCE

Sustainability Lead and Co-founder, Wastesmart Foundation, Ibadan, Nigeria | Sep. 2017 – Apr. 2021.

- Cultivated strategic partnerships and secured funding that amplified the foundation's reach, increasing public engagement by 50%.
- Developed and executed community outreach programs that educated over 10,000 participants on

environmental conservation, significantly boosting local participation in sustainability efforts.

#### **RESEARCH EXPERIENCE**

- Graduate Research Assistant | NSF-funded Sustainable Manufacturing Project, University of Delaware, Delaware | Aug. 2022 Present.
- **Graduate Researcher** | Governance Study Project, National University of Singapore, Singapore | Jan. June 2021.
- Graduate Intern | Environmental Microbiology and Biotechnology Lab., University of Ibadan, Nigeria | Dec. 2014 Apr. 2015.

#### TEACHING EXPERIENCE

• Chemistry Instructor | CINAC Royal College, LASU-Iba Road, Ojo, Lagos, Nigeria | Aug. 2012 - Feb. 2013.

## PUBLICATIONS

## **Peer-Reviewed Journal Publications:**

- Kunlere, Idowu and Kalim U. Shah. (2023). "A recycling technology selection framework for evaluating the
  effectiveness of plastic recycling technologies for circular economy advancement." *Circular Economy*, 2(4):
  100066, <u>https://doi.org/10.1016/j.cec.2023.100066</u>.
- Adeleke I. Ajani and **Idowu O. Kunlere**. (2019). Implementation of the Extended Producer Responsibility (EPR) policy in Nigeria: Towards Sustainable Business Practice in Nigeria. NJEH 2: 44-56.
- Idowu Olagoke Kunlere, Obasola Ezekiel Fagade & Blessing Ifeoma Nwadike. (2019). Biodegradation of lowdensity polyethylene (LDPE) by certain indigenous bacteria and fungi, International Journal of Environmental Studies, 76:3, 428-440, DOI: <u>10.1080/00207233.2019.1579586</u>
- Vincent H. Ogwugwa, Joy Ogwugwa, Idowu O. Kunlere, Blessing I. Nwadike, Israel O. Falodun, Ezekiel O. Fagade (2018). Heavy metals, risk indices, and its environmental effects: A case study of Ogoniland, Niger Delta region of Nigeria. Proceedings of the International Academy of Ecology and Environmental Sciences, 8(3): 172-182.

#### **Book-Chapter Publications:**

- I. Kunlere, L. Goodarzi, A.S. Kunlere and A.A. Mumuni and O. Atilola. (2019). Climate Change Mitigation Strategies along Iran's Lake Urmia Basin. In: A. Al-Omari and M.E Aydin (eds.): Water Perspectives in Emerging Countries. Water Resources and Climate Change: Impacts, Mitigation and Adaptation. Göttingen, Germany: Cuvillier, 94-114. <a href="https://cuvillier.de/de/shop/publications/8140">https://cuvillier.de/de/shop/publications/8140</a>
- I.O. Kunlere, P.A. Ogar, A.S. Kunlere and A.A. Mumuni. (2019). A Study on Farmers' Perception of Impacts of Farm Wastes on Soil and Water Quality: A Case Study of Oyo State, Nigeria. In: Araruna et al. (eds.): Water Perspectives in Emerging Countries. Water in Agricultural Practices: Training the Trainers. Göttingen, Germany: Cuvillier, 158-175. <u>https://cuvillier.de/de/shop/publications/8120</u>
- Idowu O. Kunlere, Vincent H. Ogwugwa, Oluwaseun O. Olubodun and Alaba S. Kunlere. (2018). How new climate change realities are inspiring smarter Nigerian societies. In: Chidie Ugwu et al. (eds.): Climate Change and Socio-Ecological Transformation in Nigeria: Challenges and Opportunities. Abuja: Friedrich-Ebert-Stiftung (FES), 17-50.

#### Work in Progress (Peer-Reviewed Manuscripts):

- Idowu Kunlere and Kalim Shah. (2024). Navigating the Net-zero Crossroads: Ensuring Pragmatic and Sustainable Funding Pathways towards a Low-Carbon Future.
- Idowu Kunlere and Kalim Shah. (2024). Identifying Factors for Optimizing Recycled Product Market Uptake Using a Fuzzy Delphi TOPSIS Approach.
- I.O. Kunlere. (2024). Partnerships for the Emerging Global Hydrogen Economy: A Case Study of Singapore.
- **I.O. Kunlere**. (2024). The Role of Multilateral and Private Environmental Governance in an Increasingly Complex Global Environmental Governance Landscape.
- Idowu Kunlere and Kalim Shah. (2023). A Public Response-Centered Framework for the Study of Energy Injustice in the Emerging Renewable Energy Sector
- Idowu Kunlere and Henry Awogbade. (2023). Effect of Information Communication Technology (ICT) on Paper Waste Management in Selected Corporate Establishments in Ibadan, Nigeria.

## Policy Briefs and Reports:

- Kalim Shah, Etchu Tabenyang, **Idowu Kunlere**, Michael Awuah, Rhoda Mshana, Francine Mbock, Solomon Sarpong, Callixte Kambanda, Nirina Letsara, Guillaine Neza. (2024). Harnessing Regional Energy Governance for Central Africa's Energy Security. African Development Bank (AfDB) and University of Delaware Joint Policy Brief on Energy Security in Africa. (*In-view*)
- Chaturvedi, A., **Kunlere, I.** & Brien, M. (2024). Rethinking Procurement: Exploring Regional Collaboration for Offshore Wind Energy Development in the Mid-Atlantic United States. University of Delaware.
- Idowu Kunlere. (2024). US Carbon Offset Credit Market Prediction with Machine Learning. Green Economy Lab, University of Delaware.
- Idowu Kunlere. (2023). Addressing Poor Rates of Recycling of Solar Energy Sector Waste in the United States. Green Economy Lab, University of Delaware.
- Idowu Kunlere. (2023). Power Plant Distribution and Energy Types Within the US. Green Economy Lab, University of Delaware.
- F. Guimei, I.O. Kunlere, N. Saraswat, S. Swain, and S. Mishra. (2021). Energy Security in a Post-Covid-19 World. Governance Study Project, LKYSPP, Singapore.
- Alta J. Alonzi and **Idowu O. Kunlere**. (2020). Crisis in the Niger Delta: Power, Power, and Conflict in Nigeria's Oil Producing Region. International Conflict Analysis and Resolution Report, Singapore.
- Idowu Kunlere. (2020). Historical, Environmental and Social Perspectives on Environmental Migration Near the Shrinking Lake Chad, Nigeria. Technical University Dresden, Germany.

#### ACADEMIC CONFERENCE PRESENTATIONS

- Idowu Kunlere and Kalim Shah. (2023). A Public Response-Centered Framework for the Study of Energy Injustice in the Emerging Renewable Energy Sector. 28th International Interdisciplinary Conference on the Environment: Living on the Edge of Climate Change and Coastal Communities. Louisiana State University Shreveport
- Govinda Timilsina, Kalim Shah, and **Idowu Kunlere. (**2023). Low-Carbon Infrastructures for Net-Zero Emission Targets: Investment Needs and Financing. Contemporary Challenges in Infrastructure Finance, Andrew Young School of Policy Studies, Georgia State University, Georgia, USA.
- Idowu Kunlere. (2022). Energy Justice: How the Transition to Clean Energy Could Lead to Repeating the Mistakes of the Oil Industry. Spark Symposium, Graduate School, University of Delaware, USA.
- Idowu Kunlere. (2020). How to Reduce the Global Marine Plastic Pollution Menace by Improving the Implementation of the Extended Producer Responsibility (EPR) Policy in Nigeria: Lessons for Asian Pacific Countries. (Workshop on Marine Plastic Debris in the Asia-Pacific, APCEL, NUS, Singapore).
- Idowu Kunlere and Alaba Kunlere. (2020). Climate Change, Water Resource Depletion and Impacts on Farmers around Lake Chad, Nigeria: Improving Local Capacity towards Achieving Water and Food Security. (6<sup>th</sup> International Symposium on Knowledge and Capacity for the Water Sector. Delft, the Netherlands).
- Idowu Kunlere and Olabimpe Alonge. (2020). Harnessing Traditional Communication Mediums for Effective Awareness Creation, Knowledge Transfer and Public Participation towards Driving Water Security in Rural Areas in Nigeria. (6<sup>th</sup> International Symposium on Knowledge and Capacity for the Water Sector. Delft, the Netherlands).
- Idowu Kunlere, Peter A. Ogar and Alaba S. Kunlere. (2019). Combatting Climate Change in Africa by Strengthening Public Participation: Making Policy Count by Making Every Voice Count. (African Climate Risks Conference, Ethiopia).
- I. Kunlere. (2019). Climate Change Mitigation Strategies Along Iran's Lake Urmia Basin: Options For Nigeria On Water Governance In The Lake Chad Basin. Regional Expert Workshop on Water Resources and Climate Change, Amman, Jordan.
- I.O. Kunlere, P.A. Ogar, A.S. Kunlere and A.A. Mumuni. (2019). A study on farmers' perception of impacts of farm wastes on soil and water quality: A case study of Oyo State, Nigeria (Water Perspectives in Emerging Countries Water in Agricultural Practices: Training the Trainers, Rio de Janeiro, Brazil).
- Idowu O. Kunlere, Peter A. Ogar, Oluwaseun O. Olubodun, Abdullahi A. Jimoh, Alaba S. Kunlere and Adedamola A. Mumuni. (2019). Lead Pollution in Drinking Water Sources in Artisanal Mining Areas In Zamfara State, Nigeria: The Search for a Permanent Solution (Water Security & Climate Change Conference, San Luis Potosí, Mexico).
- Idowu Kunlere. (2018). Achieving Effective Participation in Water Resources Management in Nigeria: Facilitating Sustainability from the Grassroots. (Swindon/Exceed Summer School Conference Proceedings on "Global and

Local Water Governance: Regulation, Management, and Consequences," Technical University, Braunschweig, Germany).

- Idowu Kunlere. (2018). Climate change: How Hard Realities are Inspiring Smarter Nigerian Societies. Second Symposium on Climate Change Adaption in Africa: Fostering African Resilience and Capacity to Adapt, University of Ibadan, Nigeria. (Climate Change and Socio-Ecological Transformation in Nigeria: Challenges and Opportunities).
- Kunlere. I.O. (2017). Material (Waste) Sorting, Recovery, and Recycling Along Eleyele Lake. (Swindon/Exceed Summer School on "Sustainable Waste Management in Emerging Economies," Technical University, Braunschweig, Germany).
- Idowu Kunlere, Fagade O., Nwadike Blessing, and Abdullahi Jimoh. (2015). Bacterial and Fungal Biodegradation of Heat-Treated Low-Density Polyethylene (LDPE). (38th Annual Scientific Conference/General Meeting of the Nigerian Society of Microbiology, University of Lagos, Akoka, Yaba, Lagos State, Nigeria).
- Jimoh, A., Fagade, O.E. and **Kunlere, I**. (2015). Biotreatment of University of Ibadan Fish-pond wastewater using microalgae species. (38th Annual Scientific Conference/General Meeting of the Nigerian Society of Microbiology, University of Lagos, Akoka, Yaba, Lagos State, Nigeria).

## PROFESSIONAL AND PUBLIC PRESENTATIONS

- Idowu Kunlere. (2023). The Energy Sector and Data Science in 2050. Delaware NextGen Data Science Symposium.
- Idowu Kunlere. (2018). Climate Change Implications on Sustainable Development in West Africa (Lead Presentation at West African Youth Summit 2018, Lagos).
- Idowu Kunlere. (2018). Operationalizing Lessons from the 2017 Summer School on "Sustainable Waste Management in Emerging Economies under the Special Aspects of Climate Change and Marine Litter,", held in Germany. In-House Workshop Series, NESREA, South-West Headquarters, Ibadan, Nigeria.
- Adeleke I. Ajani and **Idowu Kunlere**. (2017). A Critical Analysis of Nigeria's 1999 National Policy on Environment (NPE). Monthly Expert Discussion Series, Department of Environmental Health Sciences, Faculty of Public Health, College of Medicine, University of Ibadan, Nigeria.
- Idowu Kunlere. (2017). Climate change: Race Against Time Versus Opportunity for Environmental Rebirth. (Earth Day 2017 Public Lecture at Ogun State College of Health Technology, Ilese-Ijebu, Ogun State).

# Leadership Service

- President | Biden School Student Association, University of Delaware | May. 2024 Present.
- President | African Graduate Student Organization, University of Delaware Chapter | Dec. 2023 Present.
- Member | Student Advisory Council, Biden Institute, University of Delaware | Oct. 2023 May 2024.
- Secretary | Computational Social Science Association, University of Delaware | Aug. 2023 May 2024.

# Volunteering and Community Service

- Idowu Kunlere. 2023. Panelist (Panel 1: Data Science at UD). Delaware NextGen Data Science Symposium.
- Member | Planning Committee | Delaware NextGen Data Science Symposium (<u>https://dsi.udel.edu/events/nextgensymposium-2023/</u>) | Dec. 2023.
- Member | Sustainability Committee | Graduate Student Government, University of Delaware | Sept 2022 May 2024.
- Manager, Innovations | i-Scholar Initiative, Lagos | Aug. 2021 Present.
- Volunteer | COVID-19 Community Response and Support Team, Ibadan | Apr. 2020 Dec. 2020.
- General Secretary | The Nigerian Society of Environment (NES), Ibadan Chapter, Nigeria | May 2018 Dec. 2019.
- Member | Website Management Unit, i-Scholar Initiative, Lagos | June 2019 May 2021.
- Member | Mapping of Energy Transmission Stations in Ekiti & Ogun | Feb. 2019, Nov. 2015.
- Mentor and Facilitator | Transformers (for Teens and Teenagers), Ibadan | Apr. 2016 Dec. 2019.
- Research Associate | Status of Healthcare Waste Management in Ekiti State | June 2015 Sept 2015.
- **Co-founder** | After School Discovery, Imo State, Nigeria | **Aug. 2011 June 2012**.

## Awards, Grants, and Recognitions

- Graduate Research Assistantship (GRA) | NSF-Funded Project on "FMRG: Eco: A Systems-Enabled Paradigm Shift for Modular Sustainable Chemical Manufacturing," University of Delaware, USA (Award Sum: \$3,000,000; Award Abstract # 2134471) | Sept. 2022 – Present.
- Joint Winner | Quiz Competition on Environmental Impact Assessment (EIA) | Eko EnviorTalk Team, Nigeria | Oct. 2021.
- Enpee Scholarship | Lee Kuan Yew School of Public Policy, National University of Singapore (NUS), Singapore | Apr 2020.
- Scholarship Recipient | Fully-Funded DAAD Ph.D. scholarship under the In-Region Scholarship Program at Rhodes University, South Africa | Feb. 2020. (*Declined on personal grounds*).
- Participant | Let's Talk! Online 2020: The Africa Chapter Organised by the Swedish Institute | Nov. Dec. 2020.
- Finalist | DAAD-sponsored Helmut-Schmidt Scholarship for Public Policy, Germany | Jan. 2020.
- Fellow | UNEP/UNESCO/BMU International Environmental Professionals Program, Dresden, Germany | Jan. 2020.
- **Recipient** | i-Scholar Initiative Scholarship for Young African Scholars | Nov. 2019.
- Awardee | A.F. Oluwole Prize in Environment-Health | May 2019.
- **Delegate** | Regional Expert Workshop on Water Resources and Climate Change | Amman, Jordan | Nov. 2019.
- **Participant** | Water Security and Climate Change Conference | San Luis Potosi, Mexico | **Oct. 2019**.
- Delegate | International Expert Workshop on "Water on Agricultural Practices" | Rio de Janeiro, Brazil | Sept. 2019.
- Attendee | African Climate Risk Conference, Addis Ababa, Ethiopia | Aug 2019.
- Finalist (Top Ten out of 7,000+ candidates) | Future Leaders Connect Program | British Council, Nigeria | Jul. 2019.
- Fellow | Environmental Journalism Fellowship, Lagos, Nigeria | May 2019.
- Fellow | Emerging Leaders Training (US Government-Sponsored) | RLC West Africa, Ghana | July 2018.
- **Participant** | DAAD-funded "Summer School on "Global and Local Water Governance," Germany | **July 2018**.
- Participant | DAAD-funded Summer School on "Sustainable Waste Management," Germany | July 2017.
- **Recipient** | Certificate of Merit by the Executive Chairman, Ezinihitte-Mbaise Local Govt., Imo State, Nigeria | Jul. 2012.
- **Recipient** | Award of Meritorious Service as President, the Nigerian Association of Microbiology Students, NAMS, Obafemi Awolowo University, Ile-Ife, Nigeria | **Dec. 2010**.
- **Recipient** | Ondo State Government Scholarship Award for high achieving undergraduate students (nationwide), for three consecutive academic sessions | 2007/2008, 2008/2009, and 2009/2010.

# **PROFESSIONAL AFFILIATIONS**

- Student Member | Association for Public Policy Analysis and Management (APPAM) | Sept. 2023.
- **Member** | Nigerian Environmental Society (NES) | Jan 2017.
- Member | American Society of Microbiology (ASM) | Feb. 2015.
- Member | International Project Management Professionals (IPMP) | Dec. 2011.

# **Training Programs and Conferences Attended**

- Companies and Climate Change | ESSEC Business School | Jan. 2024.
- Planning for Climate Change in African Cities | Erasmus University Rotterdam, HIS, United Cities and Local Governments of Africa, ALGA | Jan. 2023.
- Environmental and Social Framework ESF Fundamentals | World Bank Group | Nov. 2021.
- Data for Better Lives: A New Social Contract (WBGx DBL01x) | World Bank Group | Nov. 2021.
- Global Energy and Climate Policy | University of London, SOAS University of London | Oct. 2021.
- Effective Policymaking To Build The Impact Economy | British Council, UK | Oct. 2021.
- 23rd International Summer School on Regulation of Local Public Services | Turin School of Regulation, Italy | Sept. 2021.
- Hazard Recognition and Risk Assessment | Sept. 2021.
- Coastal Ocean Environment Summer School in Ghana | University of Michigan | Aug. 2021, and Aug. 2020.
- SDG Advocateship Certification Program | Global Institute for Youth Development | Aug. 2021.

- Introduction to Prevention of Pollution by Oil from Ships | American Digital University | May 2021.
- Youth Employability and Entrepreneurship: The Role of Digital Economy | The African Institute for Economic Development and Planning (IDEP) | Jul. 2021.
- Plastics: Impacts and Action | Cornell University, USA | June 2021.
- Environmental Education Outcomes | Cornell University, USA | May 2021.
- English for Media Literacy 2020 | OPEN (Online Professional English Network) | Apr. 2021.
- Network Climate Action: Scaling Up Your Impact | Cornell University, USA | Mar. 2021.
- Qualitative Research Methods: Conversational Interviewing | MITx, USA | Feb. 2021.
- Decision Making: How to Choose the Right Problem to Solve | University of Leeds and Institute of Coding | Jan. 2021.
- E-STEM Education | Cornell University, USA | Oct. 2020.
- ISO 14001:2015 Environmental Management Systems (EMS) | Aug. 2020.
- Introduction to Sustainable Development in Business | OUM, Mauritius & Commonwealth of Learning | July 2020.
- Microsoft Excel Basic & Advanced | GoSkills Limited | Jul. 2020.
- COVID-19: Tackling the Novel Coronavirus. London School of Hygiene & TM and UK Public Health RS Team | July 2020.
- Introduction to Renewable Energy Use and Basics of Climate Finance | RENAC, Berlin | June 2020.
- Digital Skills: Artificial Intelligence | Accenture | Jun. 2020.
- Ecosystem Services Evaluation: A Step-by-Step Guide | CBD, UNEP, UNDP, NBSAP Forum | Jun. 2020.
- Ecosystem Services Evaluation: A Step-by-Step Guide | CBD, UNEP, UNDP, NBSAP Forum | June 2020.
- Design-Led Strategy: Design thinking for business strategy and entrepreneurship | The University of Sydney | Jun. 2020.
- The Dresden Nexus Conference (DNC) | Dresden, Germany | June 2020.
- 6th International Symposium Knowledge and Capacity Development for Water Management | IHE Delft | May 2020.
- Let's Break the Chain of COVID-19 Infection | Mohammed Bin Rashid University (Community Immunity Ambassador Program | Mar. 2020.
- The Future of Work: Preparing for Disruption (WDR1901x) | World Bank Group | Sept. 2019.
- Ideas for a Better World: Leading Change through Policymaking | British Council, UK | May 2019.
- Environmental Justice | University of East Anglia, UK | July. 2018.
- Second Symposium on Climate Change Adaption in Africa | University of Ibadan, Ibadan, Nigeria | May 2018.
- Essential Enforcement Course for Environmental Enforcement Officers. NESREA, Ekiti State, Nigeria | Jun. 2014.
- Health, Safety and Environment, HSE Competency Development Training, Levels 2 and 3. Institute Of Safety Professionals of Nigeria, ISPON, (formerly, Nigerian Institute of Safety Professionals, NISP,), Nigeria | Apr. 2012.
- Project Management Training. International Project Management Professionals (IPMP) | Dec. 2011.