Conference Report

5th Annual Circularity Africa Week





International Conference Centre, Lead City University, Ibadan Nigeria.

7th - 10th May

2024

Olawale Olayide, Opeyemi Odunola, Bernice Oke, Ololade Adeigbe, Ahmed Abi A. Warsame, Damilola Olanipon and Isaac Oritogun



Introduction

The International Conference Center at Lead City University in Ibadan, Nigeria hosted the onsite participants at the fifth Annual Circularity Africa Week/Conference which held during May 7–10, 2024.

The Africa Circular Economy Research and Policy Network (ACERPIN) under The Interconnections for Making Africa Great Empowered and Sustainable (IMAGES) organized the conference with the theme "Achieving Environmental Sound Management of Chemicals and Waste in Africa".

Schedule of Events:

- Day 1: Carbon Offset Project Launch/Tree Planting Exercise, Robotics for Sustainability Partnership Platform Events & Exhibition
- Day 2: Paper Presentations, Side Events
 & Exhibitions
- Day 3: Paper Presentations, Awards Ceremony & Exhibitions
- Day 4: Circularity Tour and Picnic



Day 1: Carbon Offset Project Launch/ Tree Planting Exercise

Day 1 of the Circularity Africa Week, Monday 7th May 2024 commenced with the tree planting exercise where twenty (20) tree seedlings were planted in the host community as part of the Carbon Offset Project, which offered a workable way to address the social, economic, and environmental issues surrounding circularity. Professor Olusola A. Ladokun, Professor Oyeronke Odunola, Dr Olawale Olayide, the Local Organising Committee and participants took part in the Carbon Offset Project - Africa (COP-Africa).



Day 1: Robotics for Sustainability Partnership Platform Event & Exhibition (R4SPP)

Notable speakers at the Robotics for Sustainability Partnership Platform event and exhibition were Mr. Rabeal Tadessa, Country Director, Ethiopia-RAIN; Dr Ebenezer Ajayi, Osun State University, Osogbo, Director, Africa Green Innovation School Programme & Director, Africa-RAIN, Nigeria; Dr Olawale Olayide, University of Ibadan & IMAGES Initiative.

Presentations were given by Wasty Wealth, Ibadan, Nigeria. The speaker discussed a prototype designed to address waste at its source, which connects waste producers and collectors via a mobile app where they fill out required data. The group created several cutting-edge devices, such as the money bike, an ecohol, and a smart waste bin; HSProjects Technologies, Ibadan, Nigeria The speaker, Mrs. Cecilia Adenusi, discussed the various courses offered at HSProject for both adults and children, including STEM education, the school of analysis, the school of products, and the school of design, among many others. She additionally spoke about how to enroll in the courses.

Dr. Somporn Chuai-Aree, Prince Songkla University, Thailand, STEMSEL Foundation Thailand discussed his experience implementing solar energy in his

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home and the positive effects it has had on the neighborhood and local schools. He developed a sensor in the panels to tilt towards the direction of the sun and also for tracking the productivity of the panels; Engr. Abdullah Jimoh, STEMSEL Foundation Nigeria spoke on an Internet of Things feeder system for chickens. The system has several features, including smart feeding—which distributes feed according to the needs of the chickens and does so at a precise interval, remote monitoring and control—which allows users to monitor system activity and determine when the feeder needs to be refilled from anywhere in the world, sustainability—provides reduction of feed waste and energy efficiency.

Urbanfarmacademy spoke about a spiral organic hydroponic planter that can be fully customized to fit a person's space and plant needs. According to the speaker, Urbanfarmacademy is an agritech company and academy that promotes urban farming and upcycles organic waste. They created a single automated urban greenhouse kit using an urban farming approach. They make it easier for people to obtain wholesome organic foods, making it easier for them to grow their own produce. All the presentations were streamed live with active participation by online attendees who had earlier registered for the conference.

Circularity Africa Conference (Day 2)

Day 2 of the Circularity Africa Week was Tuesday 8th May 2024 which was the first day of the Conference. The Circularity Africa Conference was a hybrid event with participants onsite at the International Conference Centre, Lead City University, Ibadan, Nigeria while online participants were connected via the Zoom platform. This arrangement made room for presentations to be made concurrently by participants online and onsite.

The first day of the Circularity Africa Conference (CAC) had over 200 persons in attendance onsite and online, and captured two keynote addresses from experts in their fields, technical presentations, and exhibitions as well as recommendations.

The day kicked off with a keynote address by Professor Bamidele I. Olu-Owolabi, Chemicals: Blessings or Curses. She explained that out of 350,000 chemicals existing in the market today, only a small number has been fully assessed for safety. She addressed the positive impacts which include; increased industrial productivity efficiency, advancement in medicine, agricultural productivity and sustainability, science and technology advancements while the negative impacts are; chemical diseases and health risks, and environmental degradation.

The second keynote address was given online by Dr Desalegn Y. Ayal from Addis Ababa University, Addis Ababa, Ethiopia. In his speech, he highlighted that addressing the root causes of environmental pollution through sustainable practices and prioritizing vulnerable communities is crucial. He reassured that a holistic approach is required in covering all lifecycle stages, backed by robust regulations, enforcement, and public engagement.

The paper presentation session online was moderated by Dr. Damilola Olanipon, a lecturer

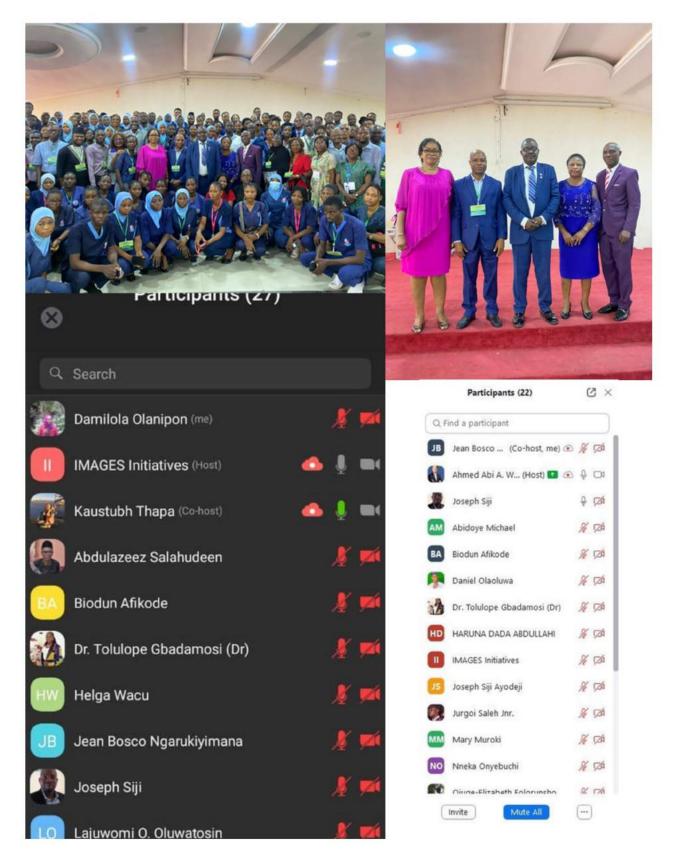
of the Department of Biological Sciences, Afe Babalola University, Ado Ekiti, Nigeria.

A total of fifteen (15) presentations were made via the zoom platform with participants spread across African countries such as Ghana, Uganda, Nigeria, Ethiopia and Nigeria. Crucial suggestions and recommendations were highlighted towards circular economy and achieving sustainable resources management and development. Achiri Herman highlighted the conversion of cashew nut shell, a waste product to biochar which could be applied as a soil amendment in agricultural farms, Damilola Olanipon and Osuji Emeka emphasized safeguarding of African trees. halting desertification and biodiversity loss towards climate change mitigation.

Beauty Banda emphasized the relevance of vermicomposting as a strategy to municipal waste management in the Ethiopian context; Obi Nneamaka advocated for eco-friendly practices in rice cultivation, while Pearl Agyekum from Ghana provided insights into how industrial food processing can promote circular economy and sustainable development. Mercy Moses and Haruna Abdullahi opined that taking advantage of natural additives such as nanoclay drastically aflatoxins in chicken feeds, mediating negative health effects. Other presentations advocated for concerted government and individual efforts to reduce social vices that negatively impact circular and sustainable economy resources management.

The online zoom presentations were followed by an interactive question and answer session where participants engaged in meaningful discussions towards achieving circular economy. The session ended at about 2 pm after which online participants rejoined the onsite conference meeting room.

Circularity Africa Conference (Day 2)



Circularity Africa Conference (Day 3)

Day 3 of the Circularity Africa Week was Wednesday 10th May 2024 which was the Day 2 of the Circularity Africa Conference on Achieving environmentally sound management of chemicals and wastes in Africa. The events captured for the day were plenary sessions, paper presentations, an award ceremony and an exhibition. The conference which was held at the International Conference Centre, Lead City University, Ibadan was in a hybrid format with participants onsite and online.

The day started with a plenary session on Plenary Session on Empowerment & Circular Businesses. The Moderator for the session was Miss Opeyemi Odunola, the coordinator of the Household **Empowerment** and Productivity systems under IMAGES Initiatives while the Panelists were - Mrs Adenike Apeji (Iya Kuli Kuli) of Renee Golden Multi Ventures Limited; Mr Kayode Oguntoye ably represented by Mr David Ajayi of Idoti Bioconcept, Dr Ebenezer Ajavi of STREEAAMMIE beyond STEM of the Ebelola Bioenergetic Solutions, Kajola, ljesa Osun State and Mr Abdulrahman Bello of Blac fits.

The session had all business owners explain to participants at the conference what their businesses are about as well as how they include circularity in their businesses. There was also the opportunity for questions and answers as well as games based on the session, for the students of the Lead City Secondary School and University to win prizes!

The session ended with panellists giving a word of encouragement to the participants to find solutions to the problem of waste around them so as to ensure a sustainable economy in the nation and continent at large.

The first keynote address for Day 2 of the conference, was given by Dr Kaustubh Thapa from the Radboud University in the Netherlands. He is a post-doctoral researcher at Radboud University in the Netherlands, where he researches high-integrity voluntary climate action. The topic of his presentation was E-Waste, Just Transition, and Circularity.

He noted that electronic waste adds to the multidimensional social and ecological problems and the need to shift beyond the material, to having a relationship with our environment and the need to prevent the dumping of electronic waste at the end of their life span in countries like Nigeria. However, this would only be possible with collaboration. He also raised a petition and asked members of the audience to sign accordingly to make European producers responsible for the management of their e-waste internationally.

The second keynote Address for the day was given by Engr. Amina Imam-Binuyo, Assistant Director, Project Implementation with the Federal Ministry of Water Resources and Sanitation (Department of Dams & Reservoir Operations). Her presentation focused on the Agenda 2063 and the goal to achieve clean water and sanitation, the 6th of the Sustainable Development Goals (SDGs).

The Afternoon section of the conference entailed the technical presentations on-site and online. The presentations on-site were on topics ranging from food waste causes and practices at fast-food outlets in Ikorodu; Organohalogenated compounds as emerging contaminants of toxicological concerns to Exploring Al-based mapping of croplands in Oyo State, Nigeria and many more.

Circularity Africa Conference (Day 3)

Within the domain of online presentations, a wide range of subjects and viewpoints surface, each with a unique importance in tackling urgent problems. Opeyemi Adejuwon explores the complexities of agricultural production, she focuses on the requirements of Nigeria's Niger State's soybean farmers. Timothy Akinkuolie turns his attention to environmental dynamics, evaluating rainfall patterns and how they affect trash disposal in South-West Nigeria. Mary Muroki raises the important issue of reviewing ewaste policies and argues that it should be recognized as a renewable resource for environmental stability, using the African setting as a point of reference.

In order to recast plastic garbage in Africa, Olushola O. Olagabi offers a creative perspective on waste management through her investigation of artistic intervention. Using a bibliometric review approach, Jean Bosco Ngarukiyimana navigates the scholarly environment to clarify the critical function that arbuscular mycorrhizal fungi play in improving nutrient uptake in agricultural soil. Finally, in order to stop the alarming trend of electronic waste in Lagos, Joseph Siji and Nueka Oyeyubuch argue for extended producers' duty. All of these talks together capture a variety of viewpoints and add to the conversation about environmental stewardship and sustainable development.



The day ended with the awards ceremony by the IMAGES Initiatives. The Following awards were given - The Africa Green Business Award 2024 given to Mrs Adenike Apeji (Iya Kuli Kuli) of Renee Golden Multi Ventures Limited; Awards of Recognition given to all keynote speakers, Fellow, Africa Circular Economy Research and Policy Network conferred on Professor Anthony Kola-Olusanya; Ambassador Josefa Correia Sacko was given the Africa Green Ambassador Award 2024 and the Graduate and Mentorship Programme (AGMCP) Best Mentee award given to Miss Opeyemi Odunola.





Circularity Africa Conference (Day 3)



Circularity Tour and Picnic (Day 4)

The 4th day of Circularity Africa Week featured the Circularity Tour and Picnic, which was well-attended with over 50 members and guests participating throughout the day's activities. Proceedings commenced at 10:00 hours with participants gathering at the Block 401 car park of the International Institute of Tropical Agriculture (IITA) premises. An introductory briefing was provided by the tour guide, covering the history and significance of establishing IITA.



The group then proceeded to the BioControl Center (Aflasafe), where they received an informative presentation on Aflasafe, a crucial biocontrol product utilized to mitigate aflatoxin contamination of crops, thereby promoting food security initiatives.



The tour's next stop was the sewage treatment plant, which provided an in-depth understanding of the value of wastewater treatment and its subsequent reuse for agricultural purposes, exemplifying the principles of circular water resource management.



Participants were then transported along the perimeter of the facility's lake, approximately 40 feet in depth, traversing the surrounding fields. This allowed for observations of the diverse ecological systems and coexisting plant and animal species found within the natural environment.

The final tour site was the forest center, where attendees were able to identify various plant and tree species native to the area. Upon conclusion of the educational tour component, participants were provided an opportunity for rest and refreshments.

During the afternoon picnic period, Dr. Ebenezer Ajayi coordinated physical exercises and interactive games. This segment facilitated an engaging dialogue where participants enthusiastically shared their perspectives on circularity concepts through gamified activities. Additionally, some attendees partook in the Japanese martial art of judo, contributing to a memorable experiential component of the event.

In his closing remarks, Dr. Olawale Olayide expressed deep appreciation to the participants and volunteers whose efforts helped make the event a success. He reassured attendees that future conferences would be of an even greater scale and quality. The eventful day concluded with a closing prayer offered by Professor Olusola A. Ladokun.

Recommendations/Communique

- A key issue highlighted during Day 2 panel discussions was the need to improve public awareness and drive behavioural changes regarding proper waste disposal practices. Lack of widespread education on the environmental and health impacts of improper waste management remains a significant obstacle to achieving circularity goals.
- To address this gap, it is recommended that coordinated publicity and sensitization campaigns be implemented with a specific focus on reaching the youth population.
 Developing strong waste disposal habits and an environmental sustainability mindset from an early age will be crucial for facilitating the transition to a circular economy model.
- One high-impact avenue would be the establishment of "Circularity Clubs" within secondary school systems across the region. These extracurricular clubs would provide a forum for students to learn about circular economy principles, recycling best practices, and impacts of waste mismanagement, and take part in hands-on activities reinforcing these lessons.
- Integrating a circularity curriculum into the existing school club framework allows for efficient deployment across jurisdictions. Also, partnering with private sector sponsors, NGOs, and community organizations would provide resources, funding, and technical expertise to support club operations





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31 May 2024

Professor Jide Owoeye Pro - Chancellor & Chairman Governing Council Lead City University Ibadan Oyo State, Nigeria

Dear Professor Owoeye,

Appreciation for Hosting of the Fifth Circularity Africa Conference 2024

In my letter dated 13 April 2023, we proposed the Lead City University, Ibadan, Nigeria as the host for the 5th annual Circularity Africa Conference. Today, I am pleased to express our profound appreciation for a successful hosting of the Conference which held during 7 - 10 May 2024.

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By hosting the 5th annual Circularity Africa Conference 2024, the Lead City University, Ibadan, Nigeria has recorded the following feats:

- ✓ The first Private University in Nigeria to host the Circularity Africa Conference
- ✓ The host of the first Circularity Africa Conference to have over 300 participants in attendance
- The first Private University in Nigeria to engage conference participants in tree planting exercise that aimed to offset carbon footprints of the organised conference
- The first Private University in Nigeria to organise a conference with embedded tour and picnic that offered opportunity for outdoor relaxation and learning

Overall, we are eternally grateful to the Management, Staff, and Students of the Lead City University under your visionary leadership> We equally appreciate your supports (conference hall, accommodation, transportation, and other logistics).

We look forward to a sustained collaboration, especially on the proposed establishment of the Phamacognosy Research Gardens on your campus.

IMAGES

Thank you.

Sincerely,

Dr Olawale Olayide

cc: Ambassador Ademola Oluseyi Onafowokan, Chairman, IMAGES Initiative

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Next Circularity Africa Conference/Week



6th Annual Circularity Africa Conference

Venue: University of Abomey-Calavi, Cotonou, Benin Republic

Theme: Wasting, Wanting, and Wealth Creation in Agri-food Systems



Date: 13 – 16 May 2025

Venue (Hybrid): Faculty of Agriculture, University of Abomey-Calavi, Cotonou, Benin Republic & Online (Zoom)

Time: 9:00 am – 5:00 pm daily (GMT)

Language: English & French

Acknowledgements

The organizers of the fifth Annual Circularity Africa Conference/Week appreciate the invaluable contributions of various speakers, organisations, and all participants towards the success of the conference and activities of the circularity Africa Week 2024.