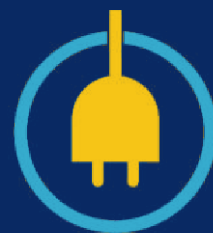


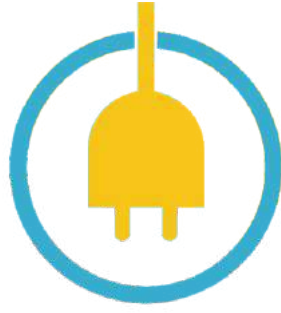


Company Profile



Clean Technology Hub
energy innovation centre

ENVIRONMENT &
CLIMATE CHANGE
PROSPECTUS



Clean Technology Hub

Energy Innovation Center

Who we are:

Clean Technology Hub is a pioneering hybrid hub for the research, development, demonstration of clean energy ideas, technologies, resources for Clean Energy Organizations and Environment and Climate Friendly Initiatives across Africa. At the hub, we also work towards supporting these companies for validation for commercial stage and/or sustainability stage development. The hub was founded in 2016 and is located in Abuja, with virtual hubs spread across the country.

The hub is an early start-up incubator for inventions and innovations in clean energy, a consultancy for sustainability and energy efficiency, and climate friendly solutions for organizations and businesses, a hybrid research and data driven firm, and a driver of clean energy investments into Africa. Clean Technology Hub is focused on increasing clean sustainable technologies across Africa and using it to empower citizens and communities towards building a sustainable well-being economy.



The hub was founded in 2016 and is located in Abuja, with Virtual hubs spread across the country.



What we do:

Our work at Clean Technology Hub rests on two pillars – Advancing both Clean Energy Access and Climate Action through policy and strategy advisory, and through design thinking and analytics, as well as through training and advocacy. We also invest in very early stage ideation projects that address the two core issues above.

As a hybrid research hub, we believe that data is key to increasing energy access across the board and therefore through support and tracking of laws, policies and regulations around clean energy; increased community engagement to identify and evaluate barriers to access, that we can better support the design and deployment of clean energy projects.

Clean Technology Hub is focused on addressing Africa's energy poverty and advancing climate action by providing up-to-date market information across the African renewable energy markets; and engaging in comparative analysis that impacts industry issues like economic development, policies, resource potential and technology developments.



Experience

Clean Technology Hub has extensive experience and knowledge in the African clean technology sector primarily on clean energy, environment and climate change. We have supported several organizations, including government agencies in implementing clean technology, start-up support, and climate smart programmes in Nigeria. These include the Heinrich Boell Foundation, Reiner Lemoine Institute, Practical Action, Coffey International, the Renewable Energy Association of Nigeria (REAN), the Open Society Initiative for Africa (OSIWA), All On, Power for All, Global Greengrants Fund (GGF), Nigeria Climate Innovation Center (NCIC), Rocky Mountain Institute, Health of Mother Earth Foundation (HOMEF) Caritas Nigeria, Strategy and Innovation for Development Initiative (SI4DEV), Global Off Grid Lightning Association (GOGLA) and several country embassies.



We have supported several Organisation including government agencies in implementing Clean technology, start-up support and climate smart programmes in **Nigeria**.

Implementing programmes and projects in **Nigeria** especially market development, business support and data collection.

In implementing programmes and projects in Nigeria especially market development, business support, and data collection, we have developed a strong relationship with government agencies in the power sector such as the Nigerian Electricity Regulatory Commission (NERC), the Federal Ministry of Power, Rural Electrification Agency (REA), Energy Commission of Nigeria (ECN), National Power Training Institute (NAPTIN), Electricity Distribution Companies (DISCOs), and Electricity Generation Companies (GENCOs). We have also developed a robust database of over 300 civil society organizations, market associations, community groups, skill centers, faith-based institutions, academia and external experts across the country.

We have a young, passionate and skilled team with experience and knowledge in Environment and Climate Action, sustainability, technology, policy development, business development, government relations, advocacy, and market development; with over 20 years of combined experience in the power and clean technology sector within and outside Nigeria. Most of our team members are also international and national consultants for several global developmental organizations that focus on the advancement of universal Environment and Climate advocacy, clean technologies, sustainability, gender, and entrepreneurship.

Our key strengths includes



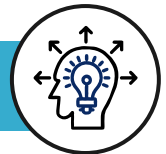
MARKET DEVELOPMENT

RESEARCH AND DATA ANALYTICS



ADVOCACY

START-UP IDEATION AND INCUBATION



BUSINESS SUPPORT

ENVIRONMENT AND CLIMATE AWARENESS



GENDER EMPOWERMENT

SUSTAINABLE DEVELOPMENT AND INTEGRATED RESOURCE PLANNING



CAPACITY BUILDING

POLICY DEVELOPMENT AND REVIEW



ENERGY GOVERNANCE ANALYSIS

POWER SECTOR AND ADVISORY SUPPORT



STRONG RELATIONSHIP WITH GOVERNMENT AGENCIES

Related Project Portfolio

Some of our key related projects and activities that have been implemented include:



Schools and Sustainability Programme (2019 - date).

Schools and Sustainability Programme borders on expanding knowledge in energy efficiency, environmental sustainability and climate change. This will provide the needed insight to develop solutions to solve the world's most pressing developmental challenges through STEM. Clean Technology Hub aims at integrating STEM method of learning into most Nigerian school systems

Approaches/Activities

Developing a STEM/Environment Teachers - program to build the capacity of secondary school teachers.

- Establishing Green STEM clubs in schools to be led by the alumni teachers from the STEM/Environment program.
- Building knowledge transfer platforms for teachers that encourage the teachers who have the responsibility of transferring the knowledge they have gained to the students through the establishment of STEM/Environmental clubs and guiding the students in the design and implementation of technical projects.
- Supporting the school clubs tasked with implementing projects within their immediate communities for each term in the academic year and STEM projects once in an academic year.
- Organizing an annual school competition among partner schools to showcase their projects for the year.

Key Outcome

- Working with teachers to build a broader understanding of STEM and its application in addressing challenges arising from Environment and Climate Change.

Achievements/Milestones

- Abuja- 35 schools in the FCT, trained and engaged 128 students and 33 teachers and demo day and exhibition.
- Aba - 13 schools, trained and engaged 42 students and 13 teachers.
- Uyo - 3 schools, trained and engaged 16 students and 3 teachers.
- Virtual capacity building program - Trained and engaged 110 students in partnership with Energy Club UI.



Learning Academy (2020 - Date)

Clean Technology Hub, sits at the intersection of driving energy access and promoting climate-friendly solutions in Nigeria with years of experience and proven track record. To address these existing challenges, we have developed educational products under our Learning Academy to provide students, teachers, enthusiasts, professionals, and entrepreneurs with resources to aid and develop their skills in the sector.

Through our Learning Academy, we have developed teaching aids, learning modules, and demonstration learning (using EdTech). These learning and educational tools are targeted at senior elementary school, junior secondary school, and Professionals and entrepreneurs seeking to start businesses or organizations in our niche areas.

Specific niche areas of the learning academy include: Environmental Sustainability and Climate Change, Renewable Energy, STEM Education and Community Development.

Approaches/ Activities

- Developing curriculums for schools, developing relevant topics that will be embedded in the curriculum.
- Developing educational contents for schools, Creating easy-to-understand materials which includes; text, graphic, audio-visual and EdTech tools for both primary and secondary schools.
- Providing learning aids and teaching aids and support for the network of schools in our community to deepen understanding around the Environment, Climate Change, and Sustainability

Key Outcome : Introducing our developed materials to primary and secondary schools across the country to increase the environmental awareness of young people from an early age and supporting them to strive to protect the environment.



Cleaning Cooking Programme

A survey, data collection, advocacy and demonstration program on clean cooking solutions and technologies. The aim of this programme is to sensitize the public on the hazards associated with the conventional and traditional method of cooking and inform them of better methods.

Approaches/ Activities

Organizing demonstrations in collaboration with manufacturers of the clean cookstoves in order to display prototypes of cook stoves and sensitize the public on its advantages and benefits.

Key Outcome

- Reduction in Forest Degradation.
- Environment and Climate Change Action/Global Warming
- Business and market Economic Development of Enterprises .
- Addressing poverty and purchasing power challenge through.



Gender, MSME and Sustainability Project

Clean Technology Hub is partnering with several other networks including and CINOLU (based in the Democratic Republic of Congo) and African Women in Energy and Development (AWEDI) -- both women-focused entrepreneurship hubs work to advance economic growth and environmental sustainability of women-owned SMEs through the 'Clean SMEs' project. The target beneficiaries are women who own Small and Medium Scale Enterprises and are located in areas with poor access to electricity, live in environmentally challenged communities and lack social and economic support to scale up their businesses.

Approaches/ Activities

- Advancing the awareness of women on the dangers of fossil fuels to their health and environment.
- Providing a linkage between SME entrepreneurs and clean energy technology partners who can support their efforts to adopt renewable energy technologies
- Supporting SMEs with channels to access credit financing for the adoption of Renewable Energy technologies.

Key Outcomes

- Achieving an increase in knowledge and awareness of the benefits of renewable energy technologies and supporting the transitioning of SMEs to clean energy technologies.
- Supporting the economic growth of women- led MSMEs.

Achievement/Milestone

- CTH/CINOLU Women in SME Webinar, May 2020.
- Women-led MSME Clean Energy Clinic, August 2020.



Digital Advocacy for Climate Emergency Network and Volunteers' Network (2020 - Date).

In January 2020, Clean Technology Hub alongside other Sustainable Environment Partners organized a program titled 'Sustaining a Digital Advocacy for Climate Emergency' which subsequently metamorphosed into the DACE network. The members of the network are young people between the ages of 18-35 who are passionate about the environment and are committed to be change makers in their communities to bring about sustainable development.

Approaches/ Activities

- Carrying out trainings for members covering various topics in order to build their capacity to contribute effectively to the program such as the Environment; Project management; Journalism and Content creation; Proposal writing; and Stakeholder engagement.
- Highlighting the various issues faced in different communities across all the geo political zones in Nigeria through media reporting and content creation.
- Promoting increase in environmental education through teachers and students in communities across Nigeria.
- Developing a network of digital advocates used to amplify positive news around the environment and with respect to Climate Action activities as well as highlight Climate Change dangers and opportunities for action amongst stakeholders.

Key Outcomes

- Designing solutions to address issues of Environmental degradation and Climate Emergency faced in their immediate communities across all the geo-political areas of Nigeria.
- Driving environmental education as the foundation for creating sustained attitudinal change towards the environment.



Wash (Water, Sanitation and Hygiene).

Clean Technology Hub aims at contributing to the integration of WASH education into the Nigerian schools system.

Approaches/ Activities

- Learning and Empowerment sessions through WASH Education in schools and communities, promoting hand washing in schools.
- Creating advocacy and sensitization platforms such as the campaign against industrial pollution of water resources; Clean water for communities (secure wells and water purification methods)

- Engaging stakeholder engagement and roundtable sessions.
- Prompting WASH in vulnerable communities throughout the country, through our Digital Advocacy networks and our volunteer network.

Key Outcomes

- Promoting sustainable models for WASH programs working through schools, community associations, religious associations and age grade and women led groups in communities.
- Building awareness, sustainability and resilience towards a well-being economy – in a way that takes the entire ecological system into account. Ensuring that actors and stakeholders understand climate emergency and that they take concrete, measurable and impact climate action in a holistic manner.



“Clean Up” Campaign.

Clean Tech Hub in collaboration with the Hungarian Embassy implemented a "clean up" campaign starting with a neighborhood project in Asokoro (Clean-Up Asokoro campaign) whose focus was on improving the sanitation and environmental practices in the community. This program in conjunction with our volunteer network will be scaled up to several other communities.

Approaches/ Activities

This involves:

- Engaging with key stakeholders – Asokoro Residents Association, all key agencies/institutions in Asokoro such as state government liaison offices, embassies, and other relevant authorities/stakeholders highlighting the issues, risks and possible solutions.
- Delivering a sensitization campaign and clean-up demonstration day along key streets in Asokoro in collaboration with interest groups, CSOs and relevant stakeholders.
- Ensuring a robust media campaign across print, digital and social media platforms to drive awareness around this initiative.

Key Outcomes

- Promoting a litter-free, clean, safe and aesthetically pleasant Asokoro.
- Driving community based collaboration in ensuring sustained effort in maintaining the environmental conditions of the area.

Achievement

Clean Up Asokoro (June 2019)

Clean Up Durumi (June 2021)



Managing e-waste in Nigeria

In April 2018, Clean Tech Hub, in collaboration with the HBS had an engagement workshop with renewable energy companies on the proper life-cycle management of used lead-acid batteries. A key outcome was the adoption of guidelines on the standard life-cycle management of used lead-acid batteries by REAN. In September 2019, a stakeholders' workshop was held to design and develop a framework for a takeback/stewardship for the renewable energy sector.

Clean Tech Hub in line with SDG's 3 (Good health and wellbeing), SDG 6 (clean water and sanitation), SDG 8 (decent work and economic growth), SDG 11 (sustainable cities and communities), SDG 14&15 (life on land and below water) and based upon previous work done under ULAB aims to further carry out an extensive and comprehensive economical assessment and advocacy campaign of Electronic waste that when adopted will reduce the rate of E - waste pollution and will propel E-waste recycling efforts forward.

Furthermore, in partnership with the Ministry of Environment, NESREA, African Clean Energy (ACE) and SOFIES international and a broad range of stakeholders, we are working to develop an e-waste management system for Nigeria.

Project Approaches/Activities

The following activities will be carried out to achieve desired objectives:

- Engaging in a preliminary work/Baseline Survey
- Providing a fieldwork Assessment
- Reporting and Data Analysis
- Consultation with identified stakeholders

Key outcome

- Developing a framework for e-waste management that is adaptable to several businesses including the Renewable Energy sector in Nigeria.
- Ensuring better management of E-waste disposal.
- Ensuring community building and community action through Extensive multi stakeholders engagement with implementing agencies.
- Identifying the role played by each player in problem solving and sustainability of the project.



Advancing Climate Smart Agriculture in Nigeria through access to Clean Energy Solutions

Clean Technology Hub in advancing climate smart agriculture practices will carry out the following proposed projects:

- Developing a policy brief on advancing adoption of clean energy solutions for driving smart agricultural practices in Nigeria energy for agricultural and economic development.
- Driving climate-smart agricultural actions to build the resilience of vulnerable farming households in Nigeria.

Project Approaches and Activities

The activities to be carried out for these programs include the following:

- Research on Clean energy options for the Policy briefs.
- Literature review of existing reports on the agricultural and energy nexus
- Stakeholder engagements for the development of the policy brief on advancing smart agricultural practices in Nigeria.
- Validation on framework for advancing smart agricultural practices in Nigeria.
- Publication and Dissemination of the Policy Brief on advancing the adoption of clean energy solutions for small scale farmers to drive climate smart agriculture in Nigeria and Research Paper on Clean Energy Options for Small Scale farmers in Nigeria
- Training Programme for Nigerian farmers (women and youths)

Key Outcomes

- The policy brief will identify the political, economic and socio-cultural barriers to the adoption of clean energy solutions in the country and proffer ways the Nigerian government can remove these barriers.
- Driving climate smart Agriculture will aid in improving food security and help farmers build resilient livelihoods across states in Nigeria as well as help in reducing GHG emission in various communities.