



Clean Technology Hub
energy innovation centre

2023

An annual report of CTH's Impact

CTH is a pioneering hybrid hub for the research, development, demonstration and incubation of clean energy ideas, technologies, and resources for clean energy organizations and environment and climate friendly initiatives across Africa.

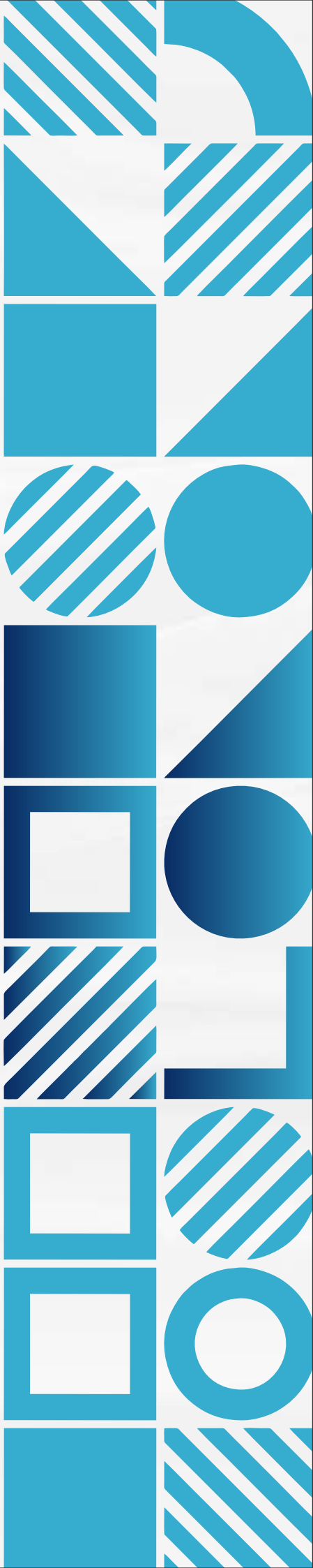
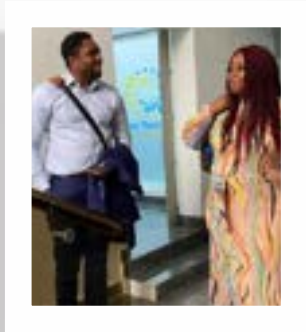


TABLE OF CONTENTS

WHAT CLEAN TECHNOLOGY HUB IS ABOUT	2 - 3
FOREWORD BY THE CEO, CTH	4 - 6
WHAT WE DO	7
DEPARTMENTS	8
SERVICES WE OFFER	8
THE CTH NETWORK	9 - 10
WHY WE ARE TRUSTED	11
WHAT SETS CTH APART	12
HUB ACHIEVEMENTS: INNOVATION AND GROWTH (ING)	13
Enterprise Development	13
Revup Women Initiative	13-14
CTH Sustainable Art and Climate Exhibition	15
Knowledge Management	16
CTH e-Learning Platform	16
CTH Newsletters	17
Media and Communication	18
Clean Tech Intell	19
New Partnerships of ING	20
HUB ACHIEVEMENTS: ENERGY ACCESS (EA)	21
The 2023 Africa E-Mobility Week Conference and Exhibition	21-23
ETP Transport and E-Mobility Stakeholder Session	24
Applied Research for Acceleration Off-Grid Projects	25
Driving Renewable Energy Adoption at State Level	26
Student Energy Career Training Programme	27
Africa International Clean Energy Storage Conference	28
Publications of EA	29
New Partnerships of EA	30
HUB ACHIEVEMENTS: ENVIRONMENT AND CLIMATE CHANGE (ECA)	31
UNDP GEF SGP: Nigeria Plastic Action Project	31-32
Adopt A School Program	32-33
World Earth Day 2023 Celebration	33-34
Government and Climate Policy Advocacy	35
World Cleanup Day	35-37
International Youth Day 2023	38
Thought Leadership On Carbon Market	39
Publications of ECA	40
New Partnerships of ECA	41
AWARDS AND RECOGNITION	42-43
THE CTH SECRETARIAT	44-45
Team Growth	46
Learning and Development	47-49
CLIMATE INNOVATION CENTER	50
CLOSING NOTE BY BOARD CHAIR, CTH	51

WHAT CLEAN TECHNOLOGY IS ABOUT

Clean Technology Hub (CTH) is a pioneering hybrid hub for the research, development, demonstration and incubation of clean and green ideas and technologies in Africa and their validation for commercial-stage development.

As a dominant force in the region, CTH stands as Nigeria's foremost hub for energy and climate innovation, pioneering transformative solutions. Our multifaceted approach encompasses not only serving as an early-stage incubator for groundbreaking clean energy inventions but also offering consultancy services for sustainability and energy efficiency. Additionally, we spearhead initiatives to attract clean energy and climate-smart investments across the African continent, solidifying our position as a driving force for positive change and sustainable development on a global scale.



OUR MISSION

Building Ecosystems and Community of Practice that are focused on practical innovations to address energy poverty, climate change, and sustainable economic development.



OUR VISION

Drive energy access and climate action through novelty in clean energy technologies, research and sustainable entrepreneurship.

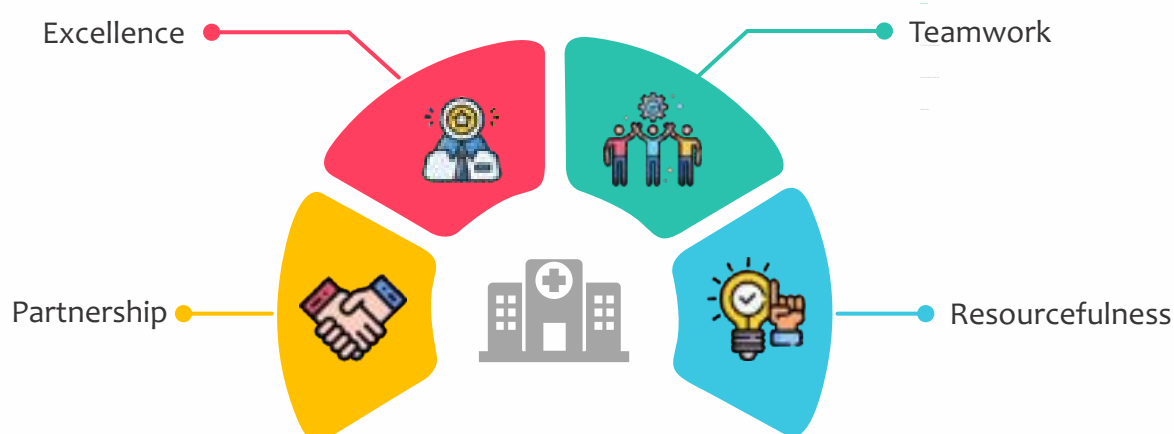




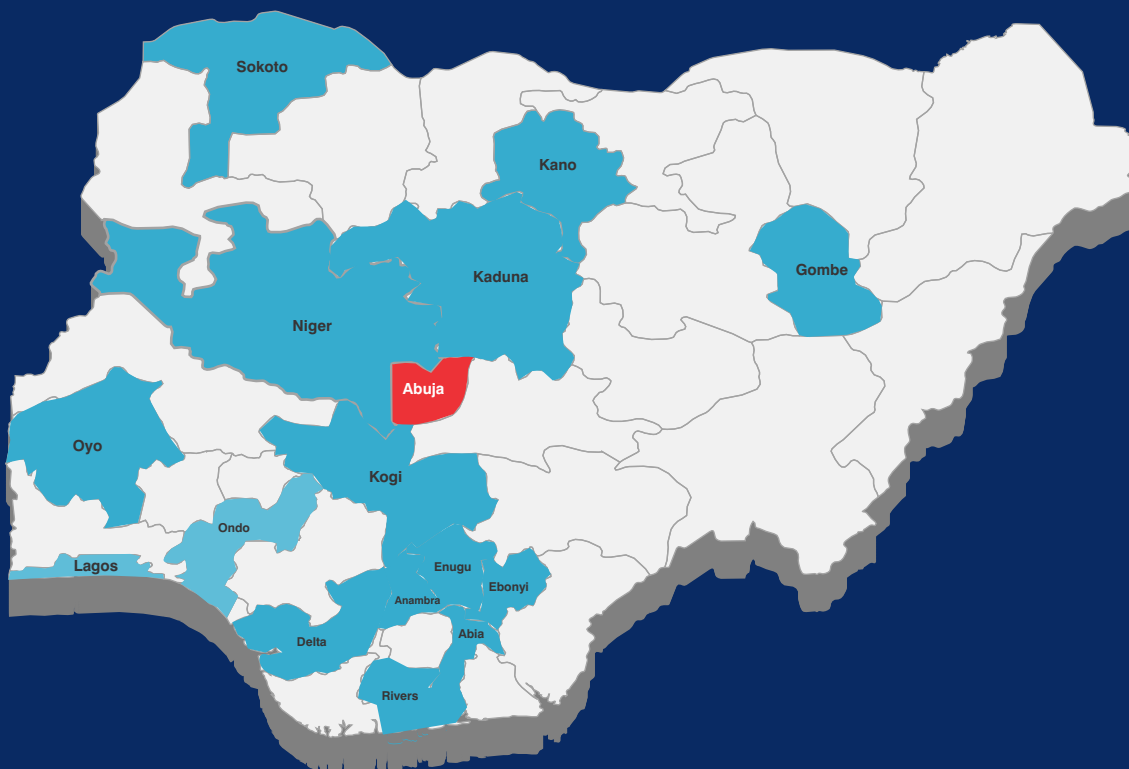
OUR PURPOSE AND VALUES

Our goal is to drive energy access in Africa through novelty in clean energy technologies, research in sustainable energy development and development of energy access models that can be adopted in various African countries. We also aim to grow the next generation of Africa's clean energy leaders.

Our purpose is brought to life through our four core values:



Founded in 2016, CTH is headquartered in Abuja, with virtual hubs spread across Nigeria.



Foreword by

Ifeoma Malo,
Chief Executive Officer, CTH.

Welcome to the 2023 edition of our Annual Report Series.

In the last eight years as Co-Founder and CEO, I have worked with an amazing team to drive change for Clean Technology Hub (CTH) and the energy industry as a whole. Change that puts us in a strong position to meet increasing climate mitigation, adaptation and resilience demands while providing products and supporting programs that contribute positively to achieving a lower carbon footprint and the alleviation of energy poverty in Africa.

Despite the headwinds in Nigeria and the continent, one area remains consistently essential to the way CTH operates, Sustainability. We put three things at the heart of our approach.

Firstly, we aim to run a safe, responsible and impactful business. That means getting the basics right. For our industry, it is imperative that we operate safely without hurting our partners, beneficiaries or the environment. When we do not live up to the standards society expects, we must learn and repair any related damage.

Secondly, we deliver on climate change-related products/projects that society benefits from – and do this responsibly to help shape a more sustainable energy future. We must be responsible stewards for these products/projects.

Thirdly, to make a positive contribution to communities. This means boosting local economies and developing talent as well as investing in start-ups and/or existing initiatives to inspire new generations of people with innovative ideas. It is an effort that also includes helping to achieve universal access to clean and affordable energy and climate action, two of the UN's 17 sustainable development goals.

This approach to sustainability, provides the deep foundations we need to support our business strategy, thrive through the transition to lower-carbon energy, and maintain a strong commitment to operational excellence.

Our 2023 Annual Report shows real action in all three components of our approach to sustainability. It also includes details of our programs and projects implemented in 2023. Let me also use this opportunity to express my gratitude to all our partner organizations, funders, and the team for their contributions to the success of 2023.



Foreword by

Ifeoma Malo,
Chief Executive Officer, CTH.



This past year has been a transformative one for CTH. We have ignited a wave of growth, welcoming a dynamic roster of new partners and witnessing an explosion in our network of innovation hubs across Africa. Our commitment to empowering future energy leaders who are tackling Africa's most pressing energy and climate challenges is amply matched by our members dedication to equipping these changemakers with the essential resources, skills, and networks they need to build thriving sustainable enterprises.

We are proud to have organized the inaugural West African E-Mobility conference in Lagos, Nigeria, which brought together stakeholders from across the African e-mobility ecosystem to network, learn, and build partnerships.

This report shows much progress. But I believe we can do better. We must keep up the fight against climate change and help reduce the environmental impact that comes with utilizing fossil fuel-based products.

We are working on making our own operations more efficient and increasing the scope of our reach in 2024. We are driving the frontiers of new energies and climate action spaces in Africa, including electric mobility, green hydrogen, faith and climate, climate smart agriculture, and gender and livelihoods.

The Energy Access portfolio aims to explore strategies to foster the transition towards sustainable E-mobility practices in Africa by bringing together relevant stakeholders at its flagship West African E-Mobility conference to facilitate discussions on policy, infrastructural challenges, and also forecasting the level of readiness and next steps for the adoption of electric mobility in the region.

Additionally, steps to increase our thrust in the Hydrogen portfolio include, research and engagement with relevant stakeholders in policy development in addition to creating awareness through training workshops that bring together donors, developers, and innovators in the sector as Nigeria initiates steps to develop its National Hydrogen Strategy.

In the Environment and Climate Action Department, the Circular Economy portfolio is set to design a waste-to-wealth initiative across Nigeria that incorporates plastic waste collection, recycling and awareness campaigns in a bid to foster optimal waste management, create green jobs, and establish partnerships with plastic manufacturers.

Similarly, the Climate Change and Youth portfolio strives to explore strategies to integrate AI technologies in climate change awareness among young people. This approach leverages immersive virtual reality (VR) contents and gamification that feature climate disaster scenarios to influence positive behavioral change, perception, and attitudes towards climate action.

Our Faith and Climate portfolio includes ambitious programmes to drive climate action through faith leaders and institutions by leveraging the deep-rooted reach of religious practitioners. This approach will enhance dissemination of climate change information and knowledge, and foster the adoption of climate change policies, and renewable energy models and technologies.

Foreword by

Ifeoma Malo,
Chief Executive Officer, CTH.

Lastly, the Innovation and Growth portfolio in partnership with 2X Global has created a programme geared towards mitigating climate crisis and catalyzing women's leadership in energy across Nigeria by increasing access to climate finance for gender-responsive, women-led, and women-benefiting organizations that address climate change through the SheSustains project. This project - driven by Climate Gender Equity Fund (CGEF) launched by U.S. Agency for International Development (USAID), with the support of Amazon, and managed by 2X Global - will provide mentorship, training, and financial support to accelerate 250 women-led initiatives in its first installment.

The crown of it all is our Youth Climate Innovator portfolio which in collaboration with partner universities in Nigeria proposes to enhance women participation and engagement in energy access through the EmpowerHER Clean Tech Boot-Camp program. This program will prime participants to develop innovative solutions targeted at addressing challenges ranging from sustainable power generation to eco-friendly initiatives.

This report details the actions we are taking to operate efficiently and work closely with communities to achieve our corporate objectives. In a time of constant change, being consistent in our approach to doing business is not only right for society, it will be critically important to CTH's success.

Regards,

Ifeoma Malo
Chief Executive Officer



Clean Technology Hub

Powering Africa's Sustainable Energy Future

WHAT WE DO

CTH is on a mission to illuminate Africa's path towards a sustainable energy future. We stand on two pillars: advancing clean energy access and promoting climate action.

Here is how we turn that vision into reality:



Data-Driven Innovation:

We leverage design thinking and analytics to guide impactful solutions. This, combined with policy and strategy advisory, empowers stakeholders to make informed decisions.



Investing in the Future:

We nurture early-stage ideas with high potential to address energy access and climate challenges in Africa.



Unlocking Potential:

As a hybrid research hub, we believe data is the key to unlocking energy access across Africa. We actively track laws, policies, and regulations while fostering community engagement. This comprehensive approach pinpoints barriers and paves the way for successful, innovative clean energy project design and implementation.



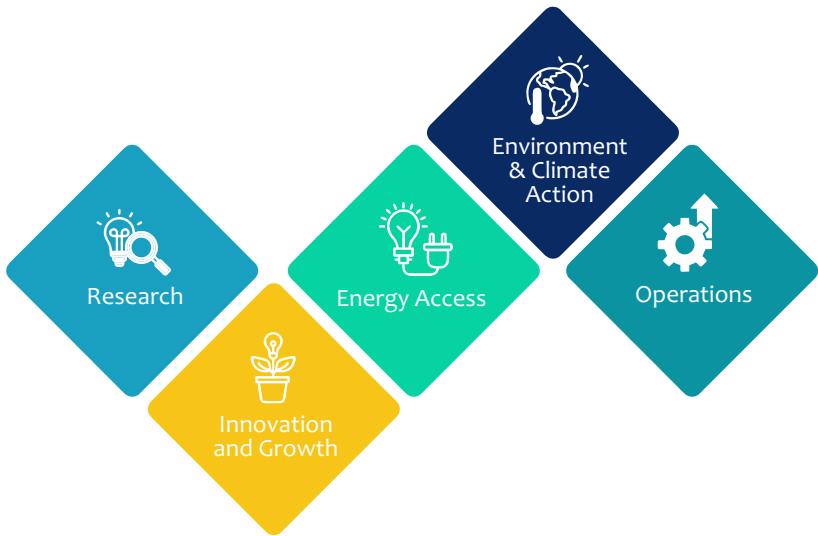
Continental Impact:

CTH tackles Africa's energy poverty head-on. We provide up-to-date market intelligence on the continent's renewable energy landscape. Through comparative analysis, we shed light on critical areas like economic development, policy frameworks, resource potential, and technological advancements.

By illuminating the path forward, CTH empowers stakeholders across Africa to embrace clean energy solutions and build a more sustainable future for all.



DEPARTMENTS



SERVICES WE OFFER



The CTH Network

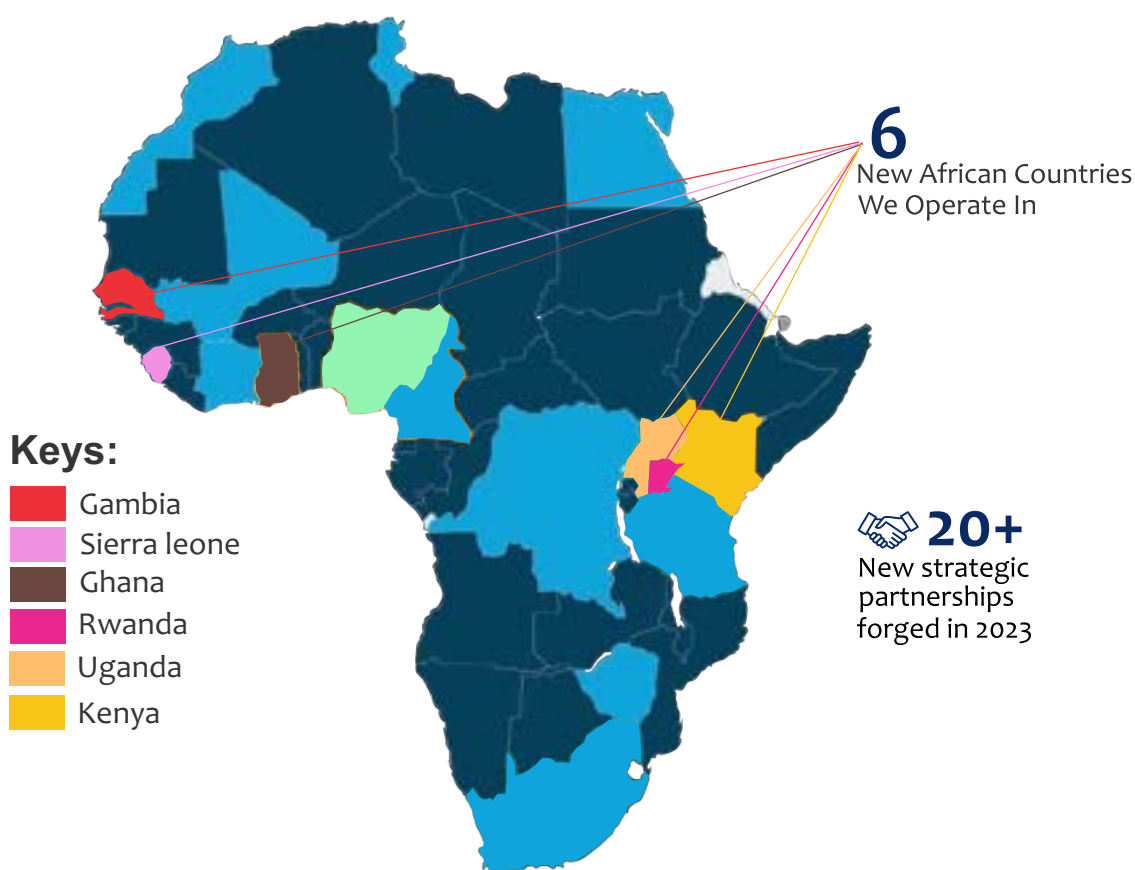
Fueling Africa's Cleantech Innovation Economy

In 2023, we witnessed remarkable growth, not just in terms of geographic reach, but also in the impact our partner hubs are delivering within their communities.

Every new strategic partnership established serves as a powerful validation, confirming the critical role CTH plays in empowering cleantech innovation across the continent. We're reaching new corners of Africa, amplifying our collective impact and fostering a vibrant continent-wide cleantech ecosystem.

The interventions of our partner hubs within local communities are making a tangible difference in advancing clean technology solutions.

The increasing partnerships with African hubs reinforces the value proposition of CTH's network, highlighting its vital role in supporting innovation. Together with our partner hubs, CTH is fueling a continental cleantech revolution – one innovation at a time.



The CTH Network

Fueling Africa's Cleantech Innovation Economy



“CTH seeks to harness the power of collective action to bridge the gender-climate finance gap and reduce energy poverty, thereby creating jobs, driving economic development, and solving societal challenges in Africa”.



ISN HUBS
Strategic Partners



“The RevUp Women Initiative implemented by CTH in Nigeria represents a significant step toward building a more inclusive and thriving entrepreneurial landscape for women in Africa”.



AFRILABS
Strategic Partners



“Clean Technology Hub is an accelerator with a network of more than 60 women-led startups working on clean energy and sustainability solutions in Africa, including a company that designs solar dryers for rural farmers, making it more affordable for farmers to dry and process their harvested vegetables while also reducing the use of fossil fuel-powered driers”.



2X GLOBAL
Strategic Partners

Clean Technology Hub

West Africa's Clean Energy Powerhouse

WHY ARE WE TRUSTED

CTH is not just another clean energy organization in Africa – we are a powerhouse of knowledge and experience. Our expertise spans the entire clean energy spectrum, with a deep focus on renewable energy, environmental solutions, and tackling climate change.

We have a history of successful collaboration with a wide range of organizations, including:



Government Agencies

Partnering with entities like the Nigerian Electricity Regulatory Commission (NERC), Energy Commission of Nigeria (ECN), National Automotive Design and Development Council (NADDCC), Rural Electrification Agency (REA), Energy Transition Office, Delta State Ministry of Energy and Ondo State Electricity Board (OSEB), we actively support clean technology implementation across the nation.



Funding Institutions

Collaborations with institutions including the Skoll Foundation, Heinrich Boell Foundation, Global Greengrants Fund, Rocky Mountain Institute, ClimateWorks Foundation, Africa Climate Foundation (ACF), USAID, and Climate Gender Equity Fund (CGEF) managed by 2X Global allow us to nurture and empower clean energy initiatives.



Industry Leaders

Working alongside the Renewable Energy Association of Nigeria (REAN), African E-Mobility Alliance (AfEMA), Innovation Support Network (ISN), AfriLabs, and Power for All, we champion the advancement of renewable energy and cleantech solutions.



Civil Society and Community Group

Partnerships with organizations like Health of Mother Earth Foundation (HOMEF) and Caritas Nigeria, as well as with local communities ensure inclusive, community-driven clean energy projects across Africa.



Knowledge Partners

Collaborations with institutions like Strategy and Innovation for Development Initiative (SI4DEV), Reiner Lemoine Institut (RLI), Wuppertal Institute, the Greenwerk, and Rocky Mountain Institute strengthen our research and knowledge base.

Our extensive work in Nigeria has fostered strong relationships with key stakeholders, including:



Public Actors

From the Nigeria Energy Transition Office (ETO) to the National Automotive Design and Development Council (NADDCC) and subnational ministries, we collaborate across the power sector value chain for policy formulation and advocacy.



Market Actors

Our network includes companies in the climate action and clean energy space, ensuring our initiatives are market-relevant and impactful.



Civil Society & Knowledge Hubs

We maintain a robust database of over 300 civil society organizations (CSOs), market associations, and academic institutions, fostering a collaborative ecosystem.



WHAT SETS CTH APART?

It is not just our experience – it is the depth of our network, our commitment to collaboration, and our data-driven approach.

We translate knowledge into action, empowering stakeholders across Africa to embrace alternative energy models for a sustainable future.

“In my years as part of the CTH team, I have witnessed remarkable growth in our impact across multiple climate action domains. Through the efforts of CTH and its partners, we may soon reach the point where more communities are able to initiate their own green electrification projects, and where Nigeria becomes one of the epicenters of the e-mobility revolution in Africa.”

Abel Gaiya

Deputy Director, Programmes



Hub Achievements



INNOVATION & GROWTH

1 ENTERPRISE DEVELOPMENT

In 2023, the Enterprise Development portfolio of CTH made tremendous progress in both quality and numbers of entrepreneurs trained.



4
projects
executed



5
UN SDGs Projects align with
(including SDGs 1+4+7 & 13)



5
Partnerships
forged

(1) RevUp Women Initiative

Accelerating African Female Entrepreneurs, One City at a Time

The RevUp Women Initiative was an empowering program designed to support early-stage, women-led startups and SMEs across Africa. Implemented by CTH in Nigeria, this program featured:



Enterprise Development
Training



Mentorship



Peer-to-peer
Learning Workshops



Grant Funding



Inclusion and
Gender Equality

The pilot phase of the RevUp Women Initiative was implemented in collaboration with **10 hubs** across **10 major cities** in **5 African countries**. The RevUp Women Initiative accelerated **500** women-led businesses and funded **10 top winning** businesses with **\$10,000** each; this financial support enabled these startups to scale and thrive. The RevUp Women Initiative aligns with **CTH's inclusion strategy**; by empowering women entrepreneurs, it contributes to advancing gender equality in the African startup ecosystem.

MEASURABLE IMPACT



A total of **50** beneficiaries were trained by CTH under various entrepreneurship modules, mentorships, and capacity building workshops.



A total of **12** training sessions were conducted.



The beneficiaries of this project were **100%** women



A total of **10** enterprises were shortlisted for the top prize.



We issued out **\$10,000 USD** in grant funding to the top winning business.



A total of **50** beneficiaries were trained by CTH under various entrepreneurship modules, mentorships, and capacity building workshops.



“Winning the RevUp Women Initiative grant in Nigeria marks a significant milestone for us - this program has increased my commitment to empowering women and driving positive change in our community”.



QUEEN AMINA MEDICAL INTEGRATION
Winner, RevUp Women Initiative, Nigeria

(2) CTH Sustainable Art And Climate Exhibition

A Fusion of Creativity and Impact

CTH successfully launched its **first art and climate exhibition project** on September 13, 2023, at our Climate Innovation Centre (Hub) in Abuja, Nigeria. This impactful event transcended the boundaries of art, fostering a vibrant space for positive climate action, economic development, and social engagement.



Cultivating a
Climate-Conscious
Community



300+
attendees

including creatives from the climate and tech sectors, spoken word artists, representatives from incubators and accelerators, investors, industry leaders, and valued CTH partners. This convergence of stakeholders fueled dynamic conversations and collaborations around climate solutions.



Empowering Innovation & Entrepreneurship

The event provided a unique platform for CTH's incubated and scaled-up entrepreneurs, nurtured through our acceleration programs, to showcase their climate-focused solutions and products. This exposure opened doors to potential partnerships and investors, propelling their businesses towards greater impact.

IMPACT:

Climate Action

By fostering collaboration among creatives, entrepreneurs, and investors, the event accelerated the awareness, development and implementation of innovative climate solutions.

Economic Growth

Increased visibility for CTH's entrepreneurs translated into new partnerships, investments, and ultimately, job creation and economic growth within the cleantech sector.

Social Engagement

Art serves as a powerful tool for raising awareness and inspiring action. This exhibition sparked important conversations on climate change within the community, fostering a more informed and engaged citizenry.

“CTH's art and climate exhibition serves as a powerful model, demonstrating how creativity can be harnessed to drive positive change across climate action, economic development, and social engagement”.



DORCAS SAMUEL

Associate, Enterprise Development

2 KNOWLEDGE MANAGEMENT

(1) CTH e-Learning Platform

Empowering a Generation of Climate Champions

CTH introduced its innovative e-Learning platform in 2023 – a virtual gateway to empower students, educators, and the broader community with the knowledge and tools to tackle climate change.

The e-Learning platform is a dynamic Virtual Learning Environment (VLE) meticulously designed to:



Engage Learners

The platform utilizes engaging and interactive resources, making environmental education accessible and captivating for students of all ages.



Empower Educators

CTH provides educators with a comprehensive curriculum and teaching tools, equipping them to confidently deliver impactful climate change education.



The platform extends beyond formal education, offering resources and tools for the broader community, fostering a more informed and engaged citizenry.

IMPACT



Raising Awareness

The platform addresses existential gaps in local knowledge around climate change, sustainability and off-grid renewable energy using educational resources tailored to the local audience. Thereby, equipping learners with a comprehensive understanding of the environment, climate change, and its far-reaching impacts on human lives.



Inspiring Change

By understanding the challenges and opportunities presented by climate change, learners are empowered to take action in their everyday lives and advocate for a sustainable future.



Building Capacity

Educators benefit from a robust curriculum and teaching tools, allowing them to effectively integrate climate change education into their classrooms, nurturing a generation of informed and environmentally conscious individuals.

“The CTH e-Learning platform is more than just an educational tool – it is a catalyst for creating positive change. By empowering learners and educators, CTH is fostering a future where communities are better equipped to address climate challenges and build a more sustainable world”.



SALMA ADAM

Associate, Knowledge Management

3 CTH NEWSLETTERS

Expanding Our Reach, Amplifying Impact

CTH's newsletter was not just a source of information in 2023 – it was a powerful tool for driving engagement and igniting climate action within our community.



Starting with 1,300 subscribers in January 2023, CTH's newsletter witnessed a remarkable growth of over 50%, reaching an impressive 2,000 subscribers by year-end. This surge reflects a growing community actively seeking information and connection around clean energy and climate solutions.



15
newsletters distributed
in 2023



1000+
Average engagements
per newsletter in 2023



50%+
Increase in
subscriber base in
2023



Engaging Stakeholders

The newsletter served as a bridge, effectively connecting CTH with a diverse range of stakeholders, partners, and individuals passionate about clean energy and climate action.



Elevating Awareness

The significant increase in subscribers signifies a widening reach and influence within the community, demonstrating a heightened interest in clean technology solutions as we tackle climate change.



Empowering Action

Beyond just informing, the newsletter's engaging content has positioned CTH as a go-to resource for those seeking knowledge on clean technology advancements, sustainable practices, and the fight against climate change.



Looking Ahead

The success of the CTH newsletter in 2023 serves as a springboard for even greater impact in the coming years. By fostering a thriving community for climate action and providing valuable resources, CTH is committed to playing a vital role in shaping a sustainable future.



4 MEDIA AND COMMUNICATION

Social Media



11045

followers across all platforms



6%

Increase in followership
from January 2023

Clean Tech Podcast



5

Countries reached
(including Germany, Indonesia,
Nigeria, UK, & USA)



150+

Average plays
per podcast



4

Podcast distributed

Digital Marketing



4

Webinars promoted



7

Programs promoted



4

Digital campaigns



2

Projects delivered

5 CLEAN TECH INTELL

Africa's Digital Launchpad for Clean Energy innovation

CleanTech Intell is an innovative digital publication tool established by CTH in 2023, to advance knowledge management in Africa's cleantech ecosystem.

This fully immersive platform goes beyond mere reporting, emerging as a powerful force for:

Thought Leadership: Clean Tech Intell fills a critical gap by providing high-quality thought leadership content. This empowers stakeholders across Africa with the insights and perspectives they need to drive progress in the clean energy sector.

Accurate Representation: Africa is a hotbed of clean energy innovation and climate action initiatives. Clean Tech Intell serves as a pioneering platform, ensuring these advancements receive the accurate and comprehensive representation they deserve.

IMPACT:

Elevating African Innovation



By showcasing groundbreaking clean energy solutions and climate action initiatives across Africa, CleanTech Intell fosters inspiration and knowledge sharing, accelerating progress across the continent.

Attracting Investment



Accurate and compelling representation of African clean energy initiatives can attract investors, propelling promising solutions towards wider implementation and greater impact.

Building a Collaborative Ecosystem



CleanTech Intell fosters a vibrant online community where stakeholders can connect, share ideas, and collaborate, ultimately accelerating the clean energy transition across Africa.

INTENDED REACH BY 2030



30+
Countries



5 million+
Users

"CTH serves as the catalyst for innovation within the realms of clean energy, climate change, and sustainability across Africa. Our relentless dedication fosters a dynamic ecosystem where pioneering ideas thrive, reshaping the continent's energy landscape and paving the path towards a greener, more sustainable future"



ELIJAH IDRAH

Manager, Innovation and Growth

NEW PARTNERSHIPS



theCANS
....a place for those who CAN



**CIRCULAR
ECONOMY
INNOVATION
PARTNERSHIP**



Hub Achievements



ENERGY ACCESS



6
Projects
executed



8
Partnerships
forged



7
Publications

1 THE 2023 AFRICA E-MOBILITY WEEK CONFERENCE AND EXHIBITION

Driving the Green Transportation Revolution



225
Attendees



4
Countries represented
(including Kenya, USA,
Ghana & Nigeria)



5
Partnerships
forged

The 2023 Africa E-Mobility Week Conference and Exhibition, held in Lagos, Nigeria, served as a significant catalyst for accelerating the green transport revolution in the country. This collaborative effort, led by CTH and key industry partners including Drive Electric Campaign, Africa Climate Foundation (ACF), Rocky Mountain Institute (RMI), Africa E-mobility Alliance (AfEMA), and the Energy Transition Office (ETO), brought together over 180 key stakeholders, including EV producers, Charging station developers, Investors, Batteries developers, and Policymakers.







KEY FEATURES



2

Panel Sessions



1

Breakout Session



Networking Opportunities



Exhibition Booth

(including showcases from Max Engine, Koolbox, Siltech, CORE by Sterling bank, Bob Eco, Kipitech, Tynu EV, Osquaretech)

FOCUS AREAS: The event delved into critical aspects of e-mobility development, emphasizing:



Policy and regulation

Financing strategies



Technological Innovation

Infrastructure development



Enhanced Knowledge Sharing

The conference fostered knowledge exchange among stakeholders, promoting a deeper understanding of e-mobility's potential and challenges in Nigeria.



Collaboration & Partnerships

The event facilitated collaboration and potential partnerships between key players, accelerating the sector's advancement in E-mobility.



Policy & Regulatory Advocacy

Discussions explored policy and regulatory frameworks that can support e-mobility adoption in Nigeria.



Public Awareness & Interest

The conference generated significant public awareness and interest in electric vehicles, paving the way for wider market acceptance.

The 2023 Africa E-Mobility Week Conference and Exhibition served as a springboard for propelling the green transportation revolution in the country. The engagement and collaboration fostered at the event will be instrumental in developing a robust e-mobility ecosystem in Nigeria, ensuring a cleaner and more sustainable transportation future.



2 ETP TRANSPORT AND E-MOBILITY STAKEHOLDER SESSION

A Collaborative Effort for a Sustainable Future

Lagos, Nigeria - June 15, 2023

The Energy Transition Office (ETO) and CTH joined forces to host the **inaugural ETP Transport/E-Mobility Stakeholder Session** in Nigeria. This pivotal event brought together several **key players** in the Nigerian e-mobility sector, fostering knowledge exchange and collaboration critical for achieving the goals outlined in the Federal Government's Energy Transition Plan.



1st
Public session to inform
the ETO'S e-mobility activities



30+
Participants

IMPACT



Stakeholder Engagement

The session boasted a strong turnout of participants, representing a diverse range of entities within the e-mobility landscape. This inclusive approach ensured a comprehensive exchange of knowledge and perspectives.



Knowledge Sharing

The session served as a platform for participants to share crucial insights and experiences regarding e-mobility in Nigeria. This knowledge exchange directly informs the ETO's efforts in developing and implementing strategies aligned with the Energy Transition Plan.



Collaborative Planning

By fostering dialogue between key stakeholders, the session laid the groundwork for collaborative planning. This collective effort is paramount for achieving the ambitious goals set forth in the government's Energy Transition plan.

The ETP Transport/E-Mobility Stakeholder Session stands as a significant step towards advancing the adoption of clean transportation solutions in Nigeria. Through knowledge sharing, collaboration, and a united vision, the participants actively contributed to the success of the Energy Transition Plan and a more sustainable future for the nation.

3 APPLIED RESEARCH FOR ACCELERATION OFF-GRID PROJECTS: STAKEHOLDER CONVENING AND TRAINING

CTH Drives Knowledge Sharing and Capacity Building for Off-Grid Energy Access in Nigeria: Collaboration Empowers Stakeholders to Light Up Underserved Regions

CTH, in partnership with the Reiner Lemoine Institut (RLI), hosted a critical stakeholder event focused on accelerating off-grid energy projects in Nigeria. This initiative stemmed from the successful completion of a three-year research and development project titled "People Power: Optimizing Off-Grid Electricity Supply Systems in Nigeria" (PeopleSuN).

PROJECT IMPACT



3
Open-source tools
developed



120
Participants



60
Stakeholders
trained

The PeopleSuN project aimed to bridge the energy gap in underserved Nigerian regions by promoting reliable and sustainable off-grid solutions through applied research. The project delivered the following impactful outcomes:



- **Open-source tools**

Development of **3 key tools** **freely** available to the **public**:

01. **Financial Assessment Tool for Electrification:** This tool aids in assessing the financial viability of off-grid solar systems, empowering informed decision-making.
02. **Off-Grid Planning Tool:** This tool enhances the design and optimization of decentralized photovoltaic (PV) systems, ensuring efficient energy delivery.
03. **Nigeria Off-Grid Solar Knowledge Hub:** This online platform acts as a comprehensive resource center for stakeholders in the Nigerian off-grid solar sector.



- **Capacity building:**

Training provided to **60 industry players**, including mini-grid developers, energy NGOs, distribution companies, and staff from the Rural Electrification Agency, empowers them to implement the newly developed tools and accelerate project implementation.

Stakeholder Training Impact:

The stakeholder event served as a platform for knowledge dissemination and fostering collaboration. Key industry figures were exposed to the PeopleSuN project's findings and equipped with the newly developed tools. This engagement empowers stakeholders to design, implement, and manage off-grid projects effectively, leading to wider access to clean and reliable electricity in underserved communities.

By collaborating with RLI and convening key stakeholders, CTH played a pivotal role in advancing off-grid energy development in Nigeria. The project's open-source tools and capacity building initiatives empower various players to address the energy gap in underserved regions, paving the way for a more sustainable and equitable energy future.

4 DRIVING RENEWABLE ENERGY ADOPTION AT STATE LEVEL

Addressing the Gap: Domiciling National Policies for Local Progress

Challenge:

National renewable energy policies in Nigeria faced limited implementation at the state level, hindering progress towards a more sustainable energy future.

Solution

Heinrich Böll Stiftung (HBS) partnered with CTH to address this challenge through an initiative focused on Delta and Ondo states, aiming to:

1. Engage state-level stakeholders in designing and implementing energy transition plans.
2. Build capacity for civil servants and civil society organizations (CSOs) to advocate for and monitor public green projects and budgets.



PROJECT IMPACT

Empowering CSOs: CTH delivered capacity building training on green budgeting for **60 CSOs across Delta and Ondo States**. This equipped them with the knowledge and skills to advocate for increased renewable energy investments in state budgets.

State-Level Action: CTH collaborated with the Ondo State Electricity Board (OSEB) to launch a renewable energy policy roadmap. This roadmap provides a clear direction for the state to increase renewable energy adoption.

This collaborative effort spearheaded by CTH and HBS addressed a critical gap in Nigeria's renewable energy transition. By empowering CSOs and facilitating state-level action, the project paves the way for increased renewable energy deployment at the state level. This ultimately contributes to a more sustainable and equitable energy future for Nigeria.



5 STUDENT ENERGY CAREER TRAINING PROGRAMME

Partnering for a Sustainable Future

STUDENT ENERGY

CTH joined forces with **Student Energy** to equip young Africans with the skills and knowledge to thrive in the renewable energy sector. This initiative focused on upskilling students and fostering innovation in clean energy solutions.

INVESTING IN THE FUTURE

This **3-month** training program engaged **2 cohorts** of students from across Africa and provided valuable support by:



Project Guidance:

CTH reviewed and validated novel renewable energy projects delivered by the trainees. This expert guidance ensured the projects were technically sound and addressed real-world challenges in clean energy adoption.



Skill Development:

This program honed the research and business development skills of the trainees, equipping them with the necessary expertise to navigate the renewable energy sector and pursue successful careers in this dynamic field.

MEASURABLE IMPACT



2
Novel green
projects validated
(increasing their
viability and potential for
implementation)



11
Students trainees
(equipped for
impactful careers
in the renewable
energy sector)



4
African
countries
represented
(Ghana, Kenya,
Tunisia, and
Nigeria)

This successful collaboration between CTH and Student Energy paves the way for sustained investment in young African talent.

6 AFRICA INTERNATIONAL CLEAN AND ENERGY STORAGE CONFERENCE

Bridging the Gap Between Academia and Industry

CTH played a pivotal role in fostering collaboration at the **Africa International Clean Energy and Energy Storage (AICCEES) virtual conference**, held in partnership with **Tovero Energy Ltd.** This event focused on facilitating closer interaction and knowledge exchange between academia and industry – key players in accelerating clean energy and energy storage advancements.



2

Panel sessions



670

Participants



Facilitating Knowledge Sharing:

CTH organized **2 panel sessions** that facilitated in-depth discussions and knowledge sharing on critical clean energy and energy storage topics.



Reaching a Wide Audience:

This conference presented a unique opportunity to engage stakeholders across the African continent in the clean energy conversation.

IMPACT THROUGH COLLABORATION

By fostering closer interaction between academic institutions and industry leaders, the AICCEES conference facilitated:



Joint Research and Development:

Enhanced collaboration between researchers and industry experts paved the way for innovative advancements in clean energy technologies.



Knowledge Transfer:

By sharing their expertise with industry professionals, academics bridged the gap between theoretical knowledge and practical applications.



Capacity Building:

Exposure to cutting-edge research and industry trends empowered stakeholders to tackle the challenges and opportunities presented by the clean energy transition.

Scan the QR Code
below to download



PUBLICATIONS



“On a mission to empower every corner of Africa with clean energy, the Energy Access Department at CTH ignites innovation, fuels progress, and brightens futures one sustainable solution at a time”

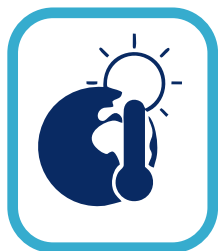


DESMOND DOGARA BARDESON
Manager, Energy Access

NEW PARTNERSHIPS



Hub Achievements



ENVIRONMENT & CLIMATE CHANGE



7
Projects
executed



7
Partnerships
forged



9
Publications

1 UNDP GEF SGP: NIGERIA PLASTIC ACTION PROJECT

Combating Plastic Pollution at the Source

The Clean Technology Incubation and Acceleration Foundation (CTIAF), in collaboration with the UNDP GEF Small Grants Programme (SGP), spearheaded the Nigeria Plastic Action Project. This initiative targeted plastic pollution at its source in Abuja, Nigeria.

The project employed a multi-pronged approach to:

Reduce Plastic Consumption: Implement measures to limit plastic production and its use within the city.

Shift Public Perception: Drive attitudinal change in how Nigerians view and manage plastic waste.

KEY FEATURES



160
Community
volunteers
trained



4
Targets
communities

Comprehensive Baseline Study: A baseline analysis of the entire plastic value chain in Nigeria, including stakeholder identification, provided valuable data for policy formulation.

Extensive Public Engagement:



Awareness Campaigns:

Targeted campaigns reached over **200 community members**, raising awareness about plastic waste and promoting sustainable practices.



Public Participation:

"Waste to wealth" campaigns encouraged innovative waste management solutions in **4** communities.



Community-Based Solutions:

Development and implementation of zero-waste management initiatives in four target communities: Kubwa, Lokogoma, Mpape, and Nyanya.

MEASURABLE IMPACT



Community Mobilization:

The project successfully recruited and trained over **160** volunteers (103 females, 57 males, and 8 PWDs), creating a network of local champions for environmental sustainability.



Knowledge Sharing:

Focus Group Discussions: 111 females, 129 males, and 12 PWDs participated in focus group discussions, ensuring diverse perspectives were considered.



KAP and Baseline Surveys: Over **5,000** people across the target communities participated in KAP (Knowledge, Attitudes, and Practices) and baseline surveys, providing crucial insights into local waste management practices.

Based on the mid-term review, the project achieved a significant portion of its goals, including:

- Reaching **350+** residents across **4** communities through outreach programs.
- Progressing towards the target of a **30%** waste reduction within these communities.
- Encouraging positive behavioral changes regarding plastic consumption and waste management.

The Nigeria Plastic Action Project serves as a model for effectively tackling plastic pollution at the local level. By empowering communities, driving collaboration, and promoting knowledge sharing, this initiative paves the way for a more sustainable environment in Abuja and beyond.

2 ADOPT A SCHOOL PROGRAM

Empowering Students Through Waste Management Education

CTH successfully launched its "Adopt a School" program, advancing environmental awareness and action within the youth of Abuja, Nigeria. This initiative targeted **3** schools:

- COCIN International School, Durumi District, Abuja.
- Kpaduma Primary School, Asokoro Extension, Abuja
- Hills Christian Academy, Maitama, Abuja.

The program aimed to:

- Raise awareness about the importance of proper waste management amongst students.
- Encourage recycling and waste reduction initiatives within secondary schools.
- Inspire students to become active participants in creating a cleaner and more sustainable environment.

IMPACT AND ENGAGEMENT



100+
Student
participants



5
Green club
sessions

The green club sessions were both informative and engaging, incorporating a variety of activities and discussions to enhance student learning:



Interactive presentations

Clear and accessible explanations of waste management concepts.



Hands-on workshops

Practical activities to demonstrate sorting, recycling, and waste reduction techniques.



Stimulating discussions

Encouraging students to ask questions, share ideas, and brainstorm solutions.

The positive response from students and schools alike indicates the success of the "Adopt a School" program in its initial phase. CTH looks forward to expanding this initiative, reaching more schools in Abuja and empowering future generations to be responsible environmental stewards.

Insert pictorial excerpts of the program

3 WORLD EARTH DAY 2023 CELEBRATION

#CTHBeatsPlasticPollution Campaign Reaches Thousands

Abuja, Nigeria - 22 April 2023

CTH partnered with **Bonnie Bio** to mark the **World Earth Day 2023** with a digital campaign, **#CTHBeatsPlasticPollution**, aligned with the global theme of **"Invest in Our Planet."** This campaign raised awareness about the environmental and economic benefits of sustainable waste management in Nigeria.

KEY HIGHLIGHTS



140,000+
Views on social
media



100+
Students
trained



200
Bio-degradable
bags distributed

CTH's Earth Day efforts extended beyond social media, encompassing:



○ **Radio Engagement:**

We held a radio program at WE FM to discuss optimal plastic waste management strategies and its relevance to Nigeria.



○ **School Sensitization Program:**

We hosted educational sessions for over 100 secondary students from 3 schools in Abuja, raising awareness about environmental pollution.



○ **Partnership with Bonnie Bio:**

200 bio-degradable bags, donated by **Bonnie Bio**, were freely distributed during the campaign to create awareness on alternative materials that allow enhanced end-of-life scenarios for disposal and recycling.

The success of the #CTHBeatsPlasticPollution campaign demonstrates the potential of digital communication to raise awareness and inspire positive change.



4 GOVERNMENT AND CLIMATE POLICY ADVOCACY

CTH Advocates for Climate Action

CTH partnered with the **Electoral College Nigeria** to foster advocacy and accountability in climate action during the 2023 Lagos State gubernatorial elections through two key initiatives:



Building Capacity:

CTH conducted a virtual capacity-building program for newly elected Lagos State Assembly members to highlight key challenges facing environmental sustainability and tools necessary to address environmental challenges effectively in the state.



Enhancing Accountability:

CTH presented questions on climate change to 5 gubernatorial candidates during the Lagos state election debate. This public panel, aired nationwide, thrust climate issues into the spotlight and ensured that candidates addressed the concerns of environmentally conscious citizens.



To access the
debate, scan the
QR Code here



5 WORLD CLEANUP DAY 2023

Abuja Ploggathon | #RaceforthePlanet | #Let'sDoItWorld

CTH joined hands with **Plogging Nigeria** to organize one of the largest civic cleanup initiatives in Nigeria, tagged the **Ploggathon** to commemorate World Cleanup Day 2023 with support from the Swedish Embassy in Abuja and CJID through its Agricultural Journalism and Climate Change Project. This two-part event took plastic waste management and climate change sensitization to the streets of Abuja. The first phase of the **Ploggathon** was a **marathon walk** and picking of **plastic waste** along the major roads of Abuja. The walk began from **Jabi Lake** and ended at the **Moshood Abiola Stadium**, while the second phase featured **public discussions** on **climate financing** and **climate loss and damage** in Africa.

WORLD CLEANUP DAY

2023
16 SEPT



IMPACT



10km
Distance
covered



178
Waste bags
collected



17%
Recyclable waste
collected



50
Marathon
walker volunteers



500+
Environmental
enthusiasts in attendance

The Ploggathon was a resounding success, showcasing the power of collaborative efforts in addressing environmental challenges. The significant quantities of waste collected, including a notable portion of recyclables, underscore the potential for ongoing initiatives to create a cleaner and more sustainable environment for all.



Environmental Impact:

The clean-up effort directly contributed to reducing environmental pollution in the Abuja area, promoting cleaner and healthier surroundings.



Community Engagement:

The event fostered community engagement and awareness about the importance of waste management and environmental conservation.



Sustainability Promotion:

By emphasizing the collection of recyclables, the initiative promoted sustainable practices and encouraged responsible waste disposal among the wider community.

“The reason for this event is to celebrate World Cleanup Day by creating awareness around waste management, plastic pollution, climate finance and the loss and damage”



AYODEJI OMILABU

Administrative Director of Plogging Nigeria



“Millions of plastic wastes are being thrown around on the streets in Nigeria. It cannot be overemphasized that plastic and nylon waste in our landfills causes significant damage to the soil and our food in the long run. It takes the actions of one person to inspire change and cause people to see things differently, so thank you for being an inspiration to your friends and family. You are the movement!”



CARINA GREIFF

Deputy Head of Mission at the Swedish Embassy in Abuja

6 INTERNATIONAL YOUTH DAY 2023

Global Reach, Local Impact

August 12, 2023

CTH hosted a webinar tagged **"Teens in Climate"** to celebrate the International Youth Day 2023. This event aimed to engage and educate teenagers on the pressing issue of climate change.

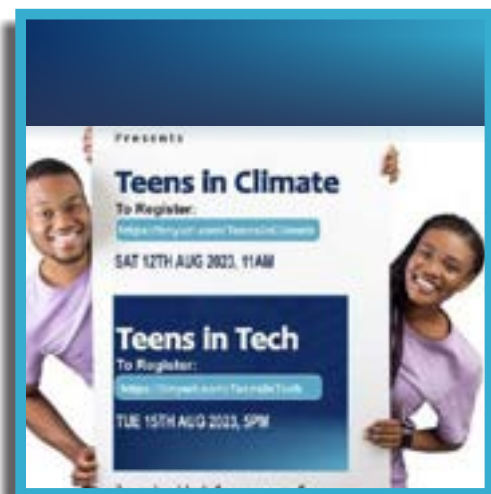


90
Teen and Youth
Participants



5
Countries
Represented

This event saw impressive global participation with 90 attendees from various countries, including Nigeria, Namibia, Bangladesh, Philippines, and the United States of America. This diverse group of participants demonstrates the widespread interest in climate change among younger generations.



IMPACT



Raising Awareness:

Attendees gained insights into the main causative factors and consequences of climate change, fostering a more informed generation.



Global Connection:

The event facilitated international connections among young people with a shared interest in environmental issues.



Empowering Youth:

Discussions explored potential solutions and practical steps to positively contribute to a more sustainable future.



Potential for Action:

The program inspired participants to become active advocates for climate solutions in their communities.

7 THOUGHT LEADERSHIP ON CARBON MARKET

Advancing Carbon Market Knowledge

CTH advanced thought leadership and advocacy in the carbon market space through two key research initiatives:

Simplified Carbon Market Glossary: CTH published the first-ever simplified Carbon Market Glossary in Nigeria. This critical resource garnered significant attention due to its feature across several social media platforms.

Country Case Study Research Series: CTH produced a Country Case Study Research Series focused on developing countries implementing carbon markets. Three case studies were published, highlighting CTH's commitment to in-depth research and its dedication to supporting carbon market development in emerging economies.

IMPACT



Knowledge Dissemination:

Making complex concepts in carbon markets accessible through a simplified glossary.



Fostering Carbon Market Adoption:

Focusing research on the specific needs of economies embarking on carbon market implementation.

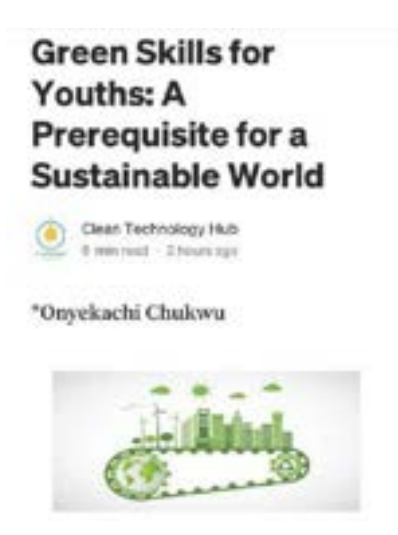
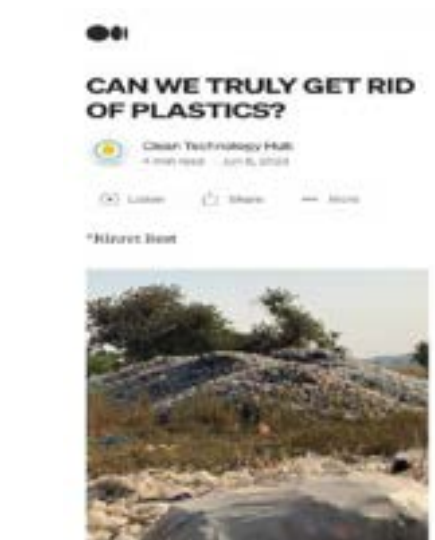
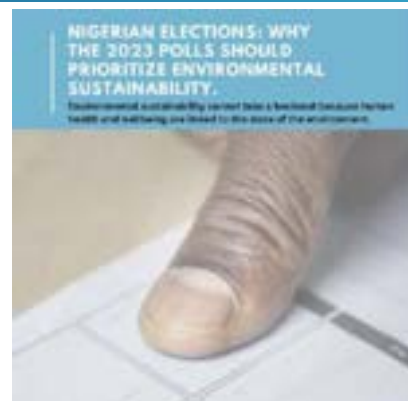
To access the Carbon Market Glossary and Research Reports, kindly scan the QR code



Scan the QR Code below to download



PUBLICATIONS



NEW PARTNERSHIPS





AWARDS AND RECOGNITION

CTH and our CEO, Ifeoma Malo, have earned awards for our commitment to excellence in Africa's cleantech space.

These prizes, which attract entrants from Africa's leading cleantech companies and entrepreneurs, are a resounding external validation of our work to combat climate change and transform African communities.



10
Awards
Nominated



9
Awards
Won



1

Recipient

REAN E-Mobility Champion Award,
2023

6

Recipient

Energy Entrepreneur Award: AWIEF
Awards, 2023

2

Recipient

REAN Renewable
Energy Policy
Advocate Award,
2023

7

Recipient

Africa Climate
Ambassadors
Programme, 2023

3

Recipient

We For Good: 100 Women
Creating a Better Africa
Award, 2023

8

Recipient

Award of Recognition: The
Renewable Energy and Energy
Efficiency Association - Alliance
(REEEA-A), 2023

4

Recipient

ISN Ecosystem Leader
Awards, 2023

5

Recipient

The Innocent
Chukwuma Award
for Social Impact
2023

9

Recipient

Award of Excellence:
Abuja Enterprise
Agency, 2023

10

Nominated

100 Changemakers Award, 2023





The CTH Secretariat

Culture by Design: Building the right ecosystem for success

CTH's secretariat, strategically located in Abuja, Nigeria, is the engine room of the organization. This central hub fosters collaboration and facilitates efficient execution of CTH's initiatives. The team comprises professionals with diverse backgrounds and extensive experience in development projects across Africa that are central to CTH's success. Their combined expertise allows them to plan and execute impactful initiatives throughout the continent. In the last year, the Operations department has improved on their efforts to cultivate a culture that prioritizes growth, happiness, and diversity. This focus on employee well-being has contributed to a more productive and innovative team.



“The CTH team is an epitome of Africa’s vast human capital potential. CTH is a testament of the boundless possibilities that the youth and women of Africa can achieve on the global stage. CTH is led by a young, dynamic team with an average age of 28 and a remarkable 70% female representation in its workforce.

The CTH secretariat comprises 5 highly competent Heads of Departments led by the Chief Executive Officer, ensuring effective direction and execution of strategic initiatives.

With a team of over 30 staff members from across Nigeria, we have consultants from Uganda, Kenya, Rwanda, Ghana, Sierra Leone, and Gambia who work with stakeholders across Africa towards enabling a thriving cleantech ecosystem on the continent.

CTH is a Pan-African powerhouse for change, led by young Africans to drive positive change in Africa’s future.”



JACQUELYN MANDO
Chief Operating officer



“At CTH, we're not just building an organization, we're building ecosystems within the energy and climate space. We believe in building a positive environment that propels communities to join in, creating a greener and sustainable future.

We are constantly evolving an inclusive culture that aligns with our core vision and value, where we believe in empowering our team members to be innovative and creative with solutions that birth projects that impact communities. The dedication towards nurturing an environment that encourages continuous learning and development is steadfast. Ultimately, we aim to create a diverse team that brings together ideas that champion a smooth transition to a more prosperous era.”



DOOSUGHUN TAKUR
Chief of Programmes

Ready to unleash your potential and make a lasting impact? Join us at CTH and become part of the movement shaping a cleaner, brighter future for Africa.



TEAM GROWTH

CTH has experienced significant growth in its workforce this year. The CTH secretariat team has expanded to 30 talented individuals, excluding consultants and contract staff. This influx of new talent strengthens CTH's expertise across various departments. CTH's organizational structure features an internal segregation of duties spread across 5 core departments.



Learning and Development

Through Knowledge Sharing Sessions, the CTH team has been able to enhance the team capacity. These sessions, internally curated by the Operations department, are designed to foster collaboration among team members, cultivate professional and personal proficiencies, and improve the knowledge and experience of the team about the African cleantech ecosystem. The level of engagement and quality of content are indicators of the impact of this capacity development initiative.

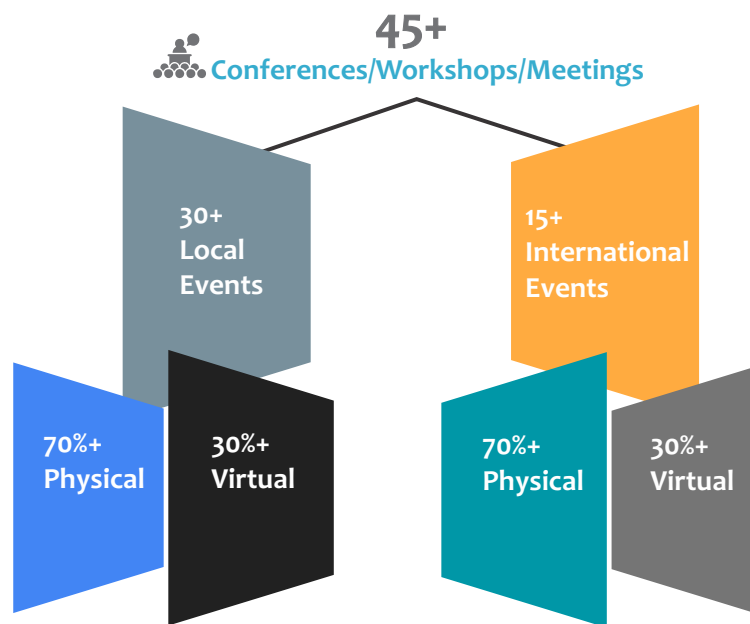
40

Knowledge Sharing Sessions in 2023

SELECTED TOPICS

Climate Health and Migration and Health: Addressing Current Health Challenges of Migrants and Refugees in Africa	A CTH Theory of Change & Project-Level Log Frameworks	Art of Managing Up and Downs	Effective Communication Strategies for Professionals	Critical Thinking on Innovation and Growth in the Clean Energy Sector	Problem Solving and Decision Making	Decision Making at Cross Roads
Building a Preventive Maintenance Culture	Art of Effective Public Speaking	Community entry and engagement Strategies	Thinking Outside the Box	AI and its Global Impact	Setting Meaningful Learning Intentions	Financial Management
Time Management	Innovation Canvas Training	Corporate Pricing	Connections that Count: Networking and Relationship Building	Data Handling: Definition, Types, and Steps.	Organizational Culture	Strategic Planning and Stakeholder Mapping

As part of our commitment to staff capacity building, CTH staff participated in over **45** high-impact energy and climate-focussed Training Workshops, Conferences, and Stakeholder Meetings, both locally and internationally, in 2023. Capacity building supports staff's professional development as well as advances CTH's mandate.





CLIMATE INNOVATION CENTRE

CTH proudly launched its Climate Innovation Center in 2023. This state-of-the-art hub serves as a co-working space designed to inspire collaboration, creativity, and sustainability.

Our workspace offers support for startups and enterprises, catering to a variety of needs, including:



**Business
Launch &
Growth**



**Meeting &
Training
Facilities**



**Collaboration
& Networking**

2023 HIGHLIGHTS

ACTIVE ENGAGEMENT

The hub hosted:



**13
Corporate
Trainings**



**15
Strategy
Meetings**



**4
Ecosystem
Mixers & Events**

THRIVING ECOSYSTEM



50%

**Occupancy Rate
indicating strong demand for the hub's co-working space and support services.**



For more enquiries to rent space at our hub,
please contact hubservices@cleantechnologyhub.org or call +2348164256002.

Connect With Us on Social Media
instagram: @cthinnovatehub



1, Sarki Tafida Street, Guzape, Abuja, FCT, Nigeria.

2023: BUILDING A COMMUNITY THAT FUELS AFRICA'S GREEN ECONOMY

Closing note by Oladipupo Baruwa, Board Chair, CTH.

I am thrilled to share with you our vision for the future. As we continue to build a community that fuels Africa's green economy, we are more committed than ever to set the pace in shaping the cleantech ecosystem in Africa.

The African cleantech scene is rapidly evolving, and the opportunities for growth and innovation are boundless. However, to fully realize this potential, we must focus on building a strong foundation for the future. This means investing in our people, infrastructure, and policies that drive climate change resilience, mitigation and adaptation, impacting policies, industry and technological developments.

At CTH, we are determined to nurture the next generation of innovation leaders. We will continue to provide training, mentorship, and resources to support innovation and entrepreneurship in the green economy and equip future energy leaders with the skills and knowledge needed to succeed in the information age.

We will also work closely with policymakers and other stakeholders to create an enabling environment to advance climate action and environmental sustainability. This includes advocating for policies that support the growth of the cleantech ecosystem, promoting collaboration among key players, and leveraging partnerships to increase access to capital and resources for project delivery.

Looking ahead, we are excited about the future of Africa's green economy. We believe that by building a strong community of innovators, entrepreneurs, researchers, policymakers, and stakeholders, we can unlock the full potential of Africa's cleantech ecosystem and foster sustainable economic growth across Africa.

Thank you for your continued support and partnership as we work towards this vision.

Regards,

Oladipupo Baruwa

Board Chair





An annual report of CTH'S impact

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