Progress Report

EcoFlames Initiative

(Transforming Coconut Waste to Clean Energy)

Presented by: World Inspiring Network, 2025.

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Implemented by the World Inspiring Network in collaboration with the International Trade Centre's Ye! Community and EBApreneur Solutions Limited, the EcoFlames initiative is funded by Bloomberg Philanthropies through the Accra Metropolitan Assembly as part of Bloomberg's Youth Climate Action Fund.

Background:

The EcoFlames Initiative, is a youth-driven project tackling three interlinked challenges in the city of Accra:

- The mounting coconut waste produced by high consumption,
- Youth unemployment and limited green livelihood opportunities, and;
- The continued reliance on harmful cooking fuels such as wood and charcoal

Accra alone produces an estimated 151 tonnes of coconut waste daily, most of which is discarded, left to clog drains, or openly burned. This contributes to air pollution, health risks such as respiratory diseases, and broader environmental degradation. At the same time, Ghana has lost nearly 30% of its forest cover in four decades, with charcoal production as one of the main drivers of deforestation.

The EcoFlames Initiative tackles these problems by transforming coconut husks and shells into clean-burning briquettes. The project combines environmental protection with youth empowerment, giving young people practical green skills while creating sustainable economic opportunities. It is also a flagship under the Green Action Project and will be showcased at the Green Action Summit 2025.

The 2-day Briquette Training Program (14th – 15th August 2025) was designed to provide participants with both the technical and entrepreneurial skills needed to engage in sustainable briquette production.

Goals and Objectives:

- Reduce coconut waste in Accra.
- Promote the use of clean energy alternatives.
- Empower young people with green skills and income-generating opportunities.
- Produce and distribute charcoal briquettes to selected communities.
- Raise awareness about sustainable fuel sources and the circular economy.

The Agenda:

The Agenda for the EcoFlames Training sought to provide two days of learning and practical engagement activities whereby participants could practically apply the learning and leverage it for their benefit.

Time	Item	Facilitator
DAY 1		
9:00 - 9:30	Welcome & Introductions	WIN, EBApreneurs, Participants
9:30 - 10:00	Presentation on EcoFlames objectives and goals.	WIN
10:00 - 11:00	Overview of the coconut waste problem and briquette as a solution.	EBApreneur Solutions
11:00 - 12:00	Step-by-step Briquette production demonstration.	EBApreneur Solutions
12:00 - 1:00	Lunch Break	
1:00 - 3:30	Manuel Process of the carbonization using affordable local drums.	EBApreneur Solutions
3:30 - 4:00	Q&A and participant reflections.	EBApreneur Solutions
DAY 2		
9:00 - 9:30	Recap & Energizer	WIN
9:30 - 10:30	Continuation of Production Practice: Refining briquette production skills.	EBApreneur Solutions
10:30 - 11:30	Types of binders and application.	EBApreneur Solutions
11:30 - 12:30	Creating groups for production projects	EBApreneur Solutions
12:30 - 1:30	Lunch Break	EBApreneur Solutions
1:30 - 2:30	Production Practice & Assessment	EBApreneur Solutions
2:30 - 3:30	Building sustainable businesses and community engagement.	WIN
3:30 - 4:00	Closing Ceremony	WIN, EBApreneurs, Participants

Day 1 Highlights:

Introduction & Expectations: The program began with an interactive icebreaker led by the Project Coordinator. Participants introduced themselves, shared their expectations, and reflected on how they hoped the training would empower them. Many noted they wanted both technical mastery of briquette production and an understanding of how to turn it into a sustainable business venture.

EcoFlames Goals & Objectives: The Project lead, Miss Thelma Bamanteeh Naroog presented the environmental and economic challenges posed by coconut waste in Accra. Participants learned about the health hazards of open burning, the climate impacts of deforestation, and the economic costs of traditional charcoal dependence. The EcoFlames Initiative was introduced as a circular economy model, converting waste into opportunity while creating green jobs for youth.

Technical Knowledge: Experts from Ebapreneur Solutions Ltd led an engaging session on the science of biomass fuels, explaining the drawbacks of traditional charcoal and the environmental benefits of briquettes. Participants gained deeper insights into how sustainable fuel production can tackle air pollution and reduce household health risks.

Demonstration & Practice: A live demonstration introduced participants to the first and most crucial step of briquette production: carbonization. Trainers showcased how coconut husks and shells are heated in controlled conditions to produce charcoal. Safety procedures such as the use of protective gear and proper handling of materials were emphasized.

Hands-on Practical, Carbonization: Participants, divided into small teams, performed carbonization exercises under supervision. This gave them firsthand experience of how to properly carbonize coconut waste for briquette making. Many noted that this stage is labor-intensive but critical for producing quality charcoal for briquettes.

Reflection Session: The day concluded with a reflection session. Participants shared what they had learned, challenges encountered during carbonization, and their excitement for continuing the production steps on Day 2.

Day 2 Highlights:

Continuation of Production Practice: Trainers resumed the briquette production process, picking up from where Day 1 ended. Participants moved into grinding the carbonized material, mixing with binders, molding into briquettes, and drying. This stage was particularly engaging, as youth could now see the transformation of raw coconut waste into usable fuel products.

Binder Types & Application: Participants were introduced to different binder materials (such as cassava starch and clay), their ratios, and how each affects the strength and burning efficiency of briquettes. They practiced mixing and applying binders to ensure high-quality briquettes.

Team-Based Production Units: To simulate real-world enterprise, participants were grouped into production units with assigned roles such as carbonizers, grinders, mixers, and quality controllers. This activity promoted teamwork, leadership, and problem-solving skills.

Production Practice & Assessment: Each team was tasked with producing a batch of briquettes, which were later assessed for quality and consistency. Trainers provided feedback on techniques and areas for improvement.

Mechanized Production (Observation): To broaden their understanding, participants were introduced to mechanized systems that industrialize the briquette-making process. This gave them a comparative view of manual versus mechanized production, highlighting scalability and efficiency opportunities.

Sustaining the Impact: Facilitators guided discussions on how participants can take their skills back into their communities. Topics included community education, waste collection systems, advocacy for clean cooking fuels, and pathways for establishing small-scale briquette enterprises.

Closing Ceremony

The training ended with a closing ceremony, recognition of participant efforts, and this was done by the fiscal lead, Mr Maxwell Odonkor and after a group photo was taken. Participants received words of encouragement to apply their new knowledge, not just individually, but as part of Ghana's broader fight against climate change, waste pollution, and unemployment.

Key Outcomes and Findings:

At the end of the EcoFlames Training;

- 15 participants received hands-on training in the full briquette production process, from carbonization to drying. They gained practical knowledge of safety procedures, binder applications, and both manual and mechanized production.

- Participants now better understand the scale of coconut waste pollution and its links to climate change and health issues. They appreciated briquettes as a sustainable alternative to wood charcoal, reducing deforestation and indoor air pollution.

- The training emphasized not only production skills but also the entrepreneurial opportunities in briquette production. Many participants expressed interest in forming cooperatives or small businesses to supply clean fuel alternatives locally.

- Participants committed to becoming advocates in their communities, raising awareness among vendors, households, and schools about the benefits of clean briquettes.

- Each participant received a Briquette Production Manual to serve as a reference guide when practicing on their own. The manuals will act as a step-by-step resource to reinforce learning and ensure consistency in production outside the training environment.

Challenges:

While the EcoFlames Initiative Training was impactful, a few challenges emerged:

- **Participant Attendance:** Some of the selected participants were unable to attend on the training days. This was disappointing, as the program had budgeted for 20 participants, yet only 15 were present to benefit from the skills and knowledge shared. This reduced the overall reach of the training.

- **Time Constraints:** The 2-day training schedule was packed, and though participants gained valuable insights, there was limited time to explore some advanced areas of briquette production in greater depth.

- **Resource Limitations:** Manual production exercises required significant effort, and while participants learned the process, access to mechanized equipment for hands-on practice was not possible. This limited exposure to scalable production methods.

- **Sustainability Concerns:** Some participants expressed worries about access to raw materials and startup support after the training, which may affect how quickly they can implement their skills in their communities.

Action Items & Next Steps:

- **Post-Training Mentorship:** Provide technical follow-up with the support of Ebapreneur Solutions Ltd.

- **Community Advocacy & Outreach:** Launch advocacy campaigns in schools and market places to raise awareness about the dangers of traditional charcoal and the benefits of briquettes. Trainees will be called upon to take part in these advocacy activities, sharing their real-life training experience with students, women, and vendors. This peer-to-peer approach will make the message more relatable and impactful.

- **Green Action Summit 2025:** World Inspiring Network will host its Green Action Summit later this year, where the EcoFlames Initiative will be presented as one of its flagship projects. Participants were encouraged to look out for invitations and make time to attend the Summit. On that day, they will serve as living testimonials, sharing their journey and experiences from the training to inspire others and amplify the impact of EcoFlames.

Conclusions:

The EcoFlames Initiative Training successfully achieved its dual purpose: equipping young people with practical green skills and inspiring them to become advocates for clean energy and environmental stewardship.

Through hands-on practice, participants saw firsthand how waste can be turned into opportunity. The training built not only technical competence but also teamwork, leadership, and entrepreneurial thinking. With proper follow-up support, this cohort of trained youth has the potential to scale briquette production, reduce waste, and drive climate action in their communities.

EcoFlames proves that when youth, innovation, and sustainability intersect, real change can be sparked — turning a local waste problem into a clean energy solution for Ghana and beyond.

About World Inspiring Network:

World Inspiring Network (WIN) is a grassroots nonprofit organization based in Ghana, founded in 2016. The organization works to break the cycle of poverty in underserved communities through education, youth empowerment, and climate action. WIN equips young people with the knowledge, skills, and opportunities needed to access quality education, create sustainable livelihoods, and adopt climate-smart practices.

Project Funding:

The EcoFlames Initiative was made possible through funding from the Youth Climate Action Fund (YCAF), which is powered by Bloomberg Philanthropies in partnership with United Cities and Local Governments (UCLG) and the Bloomberg Centre for Public Innovation at Johns Hopkins University.

The Youth Climate Action Fund is a global initiative designed to empower young people (ages 15–24) to take meaningful climate action in their communities. In Accra, the programme is implemented in partnership with the Accra Metropolitan Assembly (AMA) and supports youth-led projects that align with the city's Climate Action Plan.

By providing resources, mentorship, and financial support, the YCAF enables young leaders to design and implement innovative climate solutions in areas such as awareness creation, waste reduction, recycling, adaptation, and mitigation initiatives.

World Inspiring Network

Let's Work Together!

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