



# LESSONS LEARNT REPORT

## Combating Climate Change through the Promotion of Alternative Cooking Fuel such as Solar Cookers and Rice Straw Briquettes

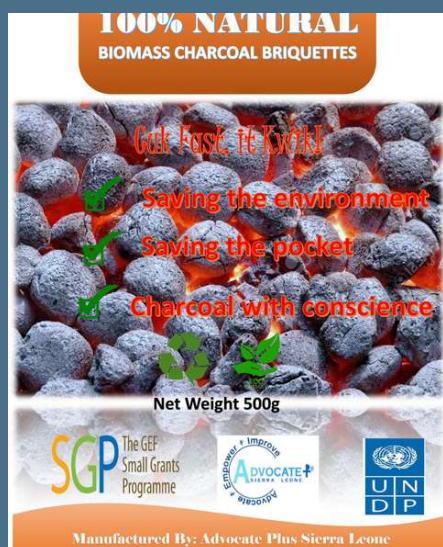
### BACKGROUND

Sierra Leone relies heavily on wood fuel, with 86% of the primary energy derived from wood, including 79% from fuelwood (firewood) and 7% from charcoal. In the targeted areas of Peje Bongre and Peje West Chiefdoms in Kailahun District, this reliance is even more pronounced, with 100% of the population depending on firewood for cooking. The extensive use of firewood is causing significant environmental degradation, contributing to deforestation and land degradation, and posing severe health risks due to indoor air pollution.

Project No: SLE/SGP/OP7/Y3/STAR/ CC/1/11/2022/38  
Grantee: Advocate Plus, Sierra Leone  
Location: Kailahun District  
SGP Contribution: 20,000  
Cash Co-Financing: \$5,000  
In-Kind Financing: 7,000  
Project Duration: 12 Months  
Number of People Served: ~10,000  
Focal Area: Climate Change Mitigation

The project, initiated by Advocate Plus Sierra Leone, funded by the UNDP-GEF Small Grants Programme aimed to reduce reliance on wood fuel by promoting alternative cooking energy sources, such as solar cookers and rice straw briquettes. This initiative seeks to mitigate deforestation, reduce greenhouse gas emissions, and improve the health and socio-economic status of the local communities.





*BRIQUETTE PACKAGING*

## PROJECT OBJECTIVES & KEY ACTIVITIES

1. **Promote Alternative Cooking Fuels:** promotes the adoption of solar cookers and rice straw briquettes to reduce reliance on wood fuel and charcoal thereby decreasing deforestation and environmental degradation.
2. **Improve Health Outcomes:** By reducing indoor air pollution from traditional firewood stoves, the project aims to lower the incidence of respiratory diseases among women and children.
3. **Enhance Socio-economic Status:** The project aims to boost household incomes and elevate living standards by providing training and establishing new income-generating activities associated with the production and sale of briquettes and solar cookers.

## ENVIRONMENTAL IMPACT

- **Reduction in Deforestation:** The introduction of solar cookers and rice straw briquettes has decreased the demand for firewood, thereby reducing deforestation. The use of biomass alternatives has also contributed to the protection of remaining forest areas.
- **Improved Air Quality:** The transition to alternative cooking methods has led to a significant reduction in indoor air pollution, thus mitigating health risks associated with traditional cooking fires.
- **Climate Change Mitigation:** The adoption of these alternative fuels has reduced greenhouse gas emissions, contributing to climate change mitigation efforts. This shift is crucial for the long-term sustainability of the region's environment.

**“I no longer need to crouch next to a burning fire, breathe in smoke, and risk my health and my children who get bitten by snakes through firewood collection.” ~Adama Ansu, Beneficiary**

**“Forest area has degraded by two -thirds by residents as they had no alternative [fuel resource] than fetching firewood from the forest, The briquettes has significantly reduced the rate of deforestation” ~ Chief Bockarie, Town Chief**

**“most people cook over open fires, and many die prematurely from illnesses attributed to pollution caused by cooking fires” ~Lansana Alpha, Beneficiary**



*WOMEN LEARNING HOW TO  
OPERATE GRINDER*

## POLICY IMPACT

- **Local Bylaws:** The introduction of bylaws that regulate the use of forest resources has been a key outcome. These laws now restrict the cutting of healthy trees for firewood, allowing only the use of dead and decaying trees, thereby protecting the local forest ecosystem.
- **Sustainable Practices:** The project has promoted sustainable agronomic practices, encouraging communities to utilize biomass from agricultural waste instead of relying on forest resources.

## SOCIO-ECONOMIC IMPACT

- **Increased Household Incomes:** Women and youth involved in briquette production and sales have seen a doubling of their household incomes, from approximately \$60 to \$120 per month.
- **Job Creation:** Over 500 women and youth have gained new skills and employment through the production of biomass briquettes, leading to sustainable income opportunities and improved livelihoods.
- **Enhanced Educational Opportunities:** Increased household incomes have enabled more children to attend school, as families can now afford educational materials and transportation.

## YOUTH ENGAGEMENT & PARTICIPATION

- **Skill Development:** provided youth with training in producing briquettes and solar cookers, equipping them with valuable skills contributing to personal and community development.
- **Sustainable Practices:** fostered a new generation committed to environmental conservation and sustainable development by involving youth in sustainable land use management.



*FRESHLY MOLDED BRIQUETTE*



## GENDER MAINSTREAMING

- **Economic Empowerment:** The project has prioritized women, providing them with training and opportunities to establish cooperatives for briquette production and sales. This has enhanced their economic independence and contributed to their empowerment within the community.
- **Improved Livelihoods:** Women have gained regular incomes and a degree of financial independence, leading to increased self-confidence and greater influence in household decision-making.

## SCALE-UP & REPLICATION

- **Model for Replication:** The formation of a sustainable land use management committee has served as a model for other communities, leading to the replication of successful practices such as briquette production and the establishment of local bylaws. Nearby communities have emulated the approach and this is yielding the desired results such as making sustainable bylaws and compiling biomass for briquette production.
- **Training and Knowledge Sharing:** The project has provided training to other communities, helping to spread the use of alternative cooking fuels and sustainable land management practices. Other CBOs continue to request for training sessions for the communities they operate.

## LESSONS LEARNED

1. **Effectiveness of Alternative Fuels:** Biomass briquettes and solar cookers has proven to be an effective alternative to firewood, reducing environmental impact and health risks associated with traditional cooking methods.
2. **Importance of Bio-energy Technology:** Promoting small-scale bio-energy technologies in rural areas can significantly combat deforestation and provide sustainable energy solutions.
3. **Community Engagement:** Successful climate change initiatives require active community engagement and the consideration of local contexts and needs. Empowering communities to take ownership of projects ensures long-term sustainability.
4. **Collaborative Partnerships:** Building partnerships with local governments, NGOs, and community groups enhances the effectiveness of climate change initiatives, leveraging diverse resources and expertise for greater impact.
5. **Economic and Social Benefits:** Providing training and economic opportunities related to sustainable practices can significantly improve livelihoods and foster community resilience.

## FUNDED BY:

