

**United Nations Development Programme**

**SIERRA LEONE**

**Project Title:** **Energy Efficient Production and Utilization of Charcoal**

**Annual Progress Report 2018**

**20**

**Acronyms**

CARL- SL: Accountability and Rule of Law

CSO: Civil society Organization

DIM: Direct Implementation Modality

GEF: Global Environment Facility

PIR: Project Implementation Report

UNDP : United Nations Development Programme**nnual Progress Report**

**201X**

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# Project Status Information

|  |  |
| --- | --- |
| **Project title** | Energy Efficient Production and Utilization of Charcoal through Innovative Technologies and Private Sector Involvement in Sierra Leone |
| **Project ID** | 000090575 |
| **Project start Date / end Date** | November 2014 – December 2019 |
| **Implementing Modality** | DIM |
| **Implementing Partner(s)** | Ministry of Energy |
| **Cluster name** | Inclusive Growth and Sustainable Environment |
| **Donors** | Global Environment Facility (GEF) |

|  |  |
| --- | --- |
| **Project Objective** | To bring economic, social and environmental benefits through the production of certified charcoal from sustainably sourced feedstock and through the promotion of improved cookstoves to reduce fuel wood demand, improve health and reduce greenhouse gas emissions. |
| **UNDP RPD outcome / UNDP Strategic Plan RRF outcome** |  |

|  |  |  |
| --- | --- | --- |
| **Annual Budget**  **(US$)** | **Expenses as of : 2018**  **(US$)** | **expenses**  **(% of annual budget)** |
| 260,228.00 | 260,228.00 | 100% |

|  |  |  |  |
| --- | --- | --- | --- |
| **Project Budget**  **(US$)** | **Total Project expenses**  **(US$)** | **Project Balance**  **(US$)** | **Total expenses**  **(% of total budget)** |
| $1,768,182 | 692,446.29 | $1,075,735.71 | 39.16 % |

# Executive Summary

The charcoal and cook stoves sub-sector in Sierra Leone remains informal, unregulated, and fragmented, plagued by an inefficient production system. The production and trade in charcoal has been a massive rural growth industry over the past decade in Sierra Leone. it has gradually displaced firewood and is now the fuelwood of choice for the majority of urban residents because Notwithstanding its popularity, the charcoal and cookstoves sub-sector remains informal, unregulated and fragmented, plagued by inefficient production system relying on non-renewable sources supported by incoherent and often conflicting policy statements. Interventions should avoid trying to fundamentally change how the fuelwood industry operates but instead solutions should be focused on making the trade and business more efficient, resilient and sustainable by incentivizing all value chain actors as inclusive business. The objective of the project is to bring economic, social and environmental benefits through the production of certified charcoal from sustainably sourced feedstock and through the promotion of improved cookstoves to reduce fuel wood demand, improve health and reduce greenhouse gas emissions. Substantial progress against strengthened institutional capacity and a supportive policy, legal and regulatory framework for biomass energy technologies as both the Renewable Energy Policy and Energy Efficiency Policy have been popularize to support both biomass energy technology (BET) applications and biomass energy business development. ***Key challenges and risks*** *faced in the implementation i*ncluded that BRAC identified in the project document to play a leading role in the loan and grant scheme failed is not interested to contribute, and the long wait for the reviewing of guidelines on the use of GEF-funded projects for grants from the Regional Office. Thus, the production and utilization of certified charcoal and certified improved cook stoves remain a challenge. It is, therefore, recommended that the Financial Engineering Expert quickly conclude on the designing of the Grant and Rebate Scheme for this GEF-funded project in detail, including appropriate interventions strategy for incentivizing private enterprise for the implementation of start-up and rebate grant mechanism for scaling up of 15,000 improved cook stoves, inclusive of 700 institutional stoves for school, prisons, hospitals and 300 industrial furnaces across Sierra Leone as inclusive business; and installing 1,000 efficient charcoal kilns as public-private partnership.

# Indicators Based Performance Assessment

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Indicators | Baseline | Target | Achieved Target (current Status) | Reasons for Valiance | Source of Verification |
| Project Results: Strengthened institutional capacity on biomass resource utilization at the national, regional and community level. Operational effective policy, legal, and regulatory frameworks and review mechanisms on biomass energy technology applications | | | | | |
| Output 1 : Strengthened institutional capacity on biomass resource utilization at the national, regional and community level. Operational effective policy, legal, and regulatory frameworks and review mechanisms on biomass energy technology applications | | | | | |
| No. of policies and legal frameworks that are supportive of BET applications and biomass energy business development approved and enforced by Year 3 | 0 | 1 | 2 | The Renewable Energy policy and Energy Efficiency policy aims to provide the government with suitable tools to enrich the National Energy policy targets on clean energy and beyond. | <http://www.energy.gov.sl/Energy_Policy.html>  <http://slconcordtimes.com/energy-ministry-launches-renewable-energy-energy-efficiency-policies/> |
| Volume of funding made available for BET application projects by EOP, US$ | 0 | $50 | $50 |  | Atlas |
|  |  |  |  |  |  |
| Output 2 : Increased number of investments on improved, more efficient charcoal and ICS production in Sierra Leone | | | | | |
| No. of ICS bought and utilized by consumers annually starting Year 4 | 0 | 5000 | 0 | Delay in implementation of grant and rebate scheme due to technical expertise in the Financial Engineer required. | PIR 2018 |
| No. of installed efficient charcoal kilns that are operational by EOP. | 0 | 450 | 0 | This is attached to the grant and rebate scheme which faced the challenge of expertise for implementation |  |
| No. of institutional furnaces/stoves installed &amp; being used on a daily basis by households in targeted areas by EOP | 0 | 406 | 0 | Same as above | Same as above |
| No. of industrial stoves installed and are operational by EOP. |  | **150** | 0 | Same as above | Same as above |
| Output 3 : Improved, more efficient production and efficient utilization of certified charcoal and cookstove | | | | | |
| No. of stoves and kilns replication projects that are approved and for implementation by Year 4 | 0 | 1 | 0 |  | <https://pir.undpgefpims.org/pir/fill-report?secureToken=536eb47b-dcfb-496b-a95a-4374f3c7870f> |

# Results

**Section 1: Overall results achieved against the outcome**

Sierra Leone is challenged by low access to energy and achieving the energy transition requires holistic policies that consider factors beyond the energy sector itself. To achieve outcome 1 on operational effective policy, legal, and regulatory frameworks and review mechanisms on biomass energy technology applications, this project promoted the popularization of the Renewable Energy (RE) and Energy Efficiency (EE) policies which are now attributed to promote a transition to clean, secure and affordable energy services. The Renewable Energy (RE) and Energy Efficiency (EE) policies launched in 2017 are popularized with project support. This has awakened the government of Sierra Leone and is now reviewing the 2009 National Energy Policy. The draft has been validated in a stakeholder’s workshop. With the motivation of the new government, the Ministry of Energy would push for a quick adoption and approval of the reviewed and harmonized national energy policy. These policies spell out the implementing strategies, specific targets and milestones through which the Government of Sierra Leone and its people would endeavour to develop and manage the energy sector for achieving its Sustainable Development Goals (SDGs).

This perspective has serious implications for economic growth projections, especially with the new government strategy of ‘New Direction’ seeking affordable, easily available energy. Beyond the buy-in from the government and relevant private sector actors, the popularization of the RE and EE policies provided a robust regulatory environment to ensure availability of information on renewable energy for the country. A major ascribed consequence of the popularization of the relevant energy policies in the energy sector is the engagement of the Ministry of Energy for the overhaul, upgrade and maintenance of targeted aspects of the electrical network infrastructure during this reporting period for efficient and effective energy supply services. As the development potential of energy relies heavily on energy solutions appropriate to the needs of the end-user, the pursuit of the review and harmonization of the 2009 National Energy Policy seeks to achieve an efficient balance between energy demand and supply in an effort to avoid constraints on economic growth the new government is prioritizing.

Facilitating an increased number of investments in improved, more efficient charcoal and improved cookstove production was quite slow. BRAC identified in the project document (ProDoc) to play a leading role in the loan and grant scheme failed to take the role and to contribute as per co-financing commitment. Also, the Project Management Unit (PMU) awaited guidance from the Regional Office which was reviewing guidelines on the use of GEF-funded projects for grants. To overcome these challenge, it was later agreed between the RO and Country Office (CO) to repurpose the fund for the loan guarantee scheme and to hire consultancy services of Chief Technical Advisor (CTA) to provide oversight on the modalities for the implementation of start-up grant and end user rebate scheme and a Financial Engineering Expert to provide support in the establishment of procedures and implementing arrangements of the grant.

**Section 2: results achieved against Outputs**

**Output1: Strengthened institutional capacity on biomass resource utilization at the national, regional and community level. Operational effective policy, legal, and regulatory frameworks and review mechanisms on biomass energy technology applications**

In order to achieve formulated, approved and enforced policies, laws and regulations on more efficient charcoal and improved cookstoves production, the project carried out the following activities.

**Activity Result 1.2:**

The drafting of the reviewed and harmonized National Energy Policy is a preparation of detailed regulatory frameworks, containing regulations, procedures, standards, Action Plan and incentives for the smooth and effective implementation of biomass energy applications has been presented by the consulting firm to the Government of Sierra Leone through the Ministry of Energy for endorsement.

**Activity Result 1.3:**

The project is carrying out civil works on the construction of cookstove testing laboratory which will aid the development of standards and certification protocols for efficient charcoal and improved cookstoves once the equipment procured are nstalled.

**Output 2: Development of public-private initiatives for the improved and more efficient production of charcoal and the scaling up of improved cookstove production**

The grant and rebate scheme will promote the production of the target cookstove and kilns

**Activity Result 2.2:** In the pursuit of developing incentives through carbon finance, microfinance, rebate and loan guarantee schemes to scale up sustainable charcoal and improved cookstove businesses, a Financial Engineering Expert was contracted to develop financial scheme. The Inception Report submitted speaks to the issues and proposed a contextualized modality of the establishment of procedures, implementing arrangement, oversight and modalities for the implementation of start-up grant and end user rebate scheme.

**Activity Result 2.3:** The project has identified local fabricators, raw material suppliers and micro-entrepreneurs and their specific areas of involvement which is critical for the promotion and upscaling of cookstove production and utilization.

**Output 3: Improved, more efficient production and efficient utilization of certified charcoal and cookstove**

**Activity Result 3.1**: The project developed gender sensitive modules for capacity building training for community people on the production and utilization of certified charcoal involved in the woodlot communities. This has enhanced male and female participation and respect for each other.

**Activity Result** 3.2 The contracted Financial Engineering Expert contracted as a management measure because of the challenges encountered in developing and establishing a financial scheme proposed promotional schemes on the social, economic and environmental co-benefits of improved charcoal and improved cook stoves to create demand, generate good buy-in and willingness to pay.



# RISKS AND ISSUES

**Project Risk and Issue Log**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **#** | **Description and Date Identified** | | **Type** | | **Probability and Impact** | | **Countermeasures / Management response** | | **Status** | |
| Risks | | | | | | | | | | |
| 1 | Political uncertainty and instability over the national general elections posed a serious risk to project implementation and monitoring. The political situation proceeding the Sierra Leone 2018 presidential, parliamentary and local council elections in March 2018 was marred with fears, violent incidents, and tensions affecting public and private offices functioning at normalcy with an inability to implement project activities for many months. | | Political | | Probability = 5,  Impact = 3, | | The project fast-tracked implementation of activities delayed by the political situation. | | Dead | |
| 2 | The willingness of the staff to adopt new knowledge and practice. The Project Management Unit waited long on the GEF Regional Office for GEF policy guideline on grant and rebate scheme as it was being reviewed. This posed substantial risk to the negotiations around establishing the procedures and modalities for the implementation of financing schemes on startup grant and end user rebate. | | Strategic | | Probability =3,  Impact =3 | | In managing this risk, the Project Management Unit (PMU) is soliciting technical support from consultancy services for Chief Technical Advisor (CTA) and Financial Engineering Expert (FEE). | | Reducing | |
| 3 | Failure of government and other development partners to put in the quantum of investment or co-financing as per project design document was risk. BRAC which was identified in ProDoc for co-financing and partnering in the implementation of the loan, grant and rebate showed no interest when approached. | |  | | **Probability** = Likely  **Impact on results** 4 | | In addressing this risk, the loan aspect was subdued into the grant scheme. | | No Change | |
| Issues | | | | | | | | | |
|  | **Description :**  **Date Identified :** | Request for Change  Problem  Other  *(select from list)* | | Describe the potential effect on the project  **Probability** (very likely=5, Likely=4, Moderate=3, unlikely=2, very unlikely=1)  **Impact on results** (critical=5, severe=4, moderate=3, minor=2, negligible=1) | | What actions have been taken/will be taken to address this issue | | e.g. pending, solved | |
|  | Inequitable participation by women and men, and access to and availability of energy supply. |  | | **Probability** 3,  **Impact on results** 3, | | In the reviewed of the national energy policy it is ensured that equal opportunities for both women and men are considered to contribute to transforming or challenging gender inequalities and discrimination. | | Pending | |
|  | The woodlot in Makoleer which is one of the four community woodlots piloted was destroyed by wildfire despite the fire belts as the fire was considered by the community people as a possible sabotage. |  | | **Probability** 3,  **Impact on results** 4, | | There has been a community engagement for greater surveillance during the dries and the field has been replanted with seedlings. | | Solved | |

# Partnerships

This project is promoting partnerships between the Government of Sierra Leone and community people to help educate charcoal producers to be part of the whole value chain since a large part of the energy from charcoal is being wasted through inefficient equipment and appliances for charcoal production and utilization.

The project partnered with the Centre for Accountability and Rule of Law (CARL- SL), a civil society Organization (CSO) which played key role in the inventory and assessment of relevant CBOs or entrepreneurs involved in the value-chain of cookstove production, particularly those that have presence in the target districts in the Southern and Eastern regions of Sierra Leone. This exercise conducted brings out the strength and capacity of the respective organizations and entrepreneurs to participate in this project. This is crucial for the implementation of the grant and rebate scheme to upscale efficient cookstoves and kilns.

The project partnered with indigenous peoples and local communities on shared conservation goals. During the land preparation period of a slash-and-burn farming, the brushed farmlands are set on fire to clear the land for ploughing. At such a time, the fire could go wild destroying other assets. In the Mawoma community, with their important traditional knowledge and vast experience in environmental stewardship, indigenous people of the Mawoma local community uniquely positioned themselves when burning three farms around the community woodlot to prevent the fire going wild and destroying the woodlot.

Westwind Energy as private sector is an identified potential partner of the project, and is working closely with the project and other partners to collectively disseminate clean cookstoves. Its commitments to the co-financing the project is concentrated in increasing understanding of consumer needs and preferences, to help the Sierra Leone community boost adoption of clean cookstoves and reduce exposure to indoor air pollution; and developing the clean cookstove sector through production of prototype kilns, institutional and Industrial stoves that strengthen the business operations of cookstove end-user and encourage private sector participation.

This project partners with the Global Environment Facility (GEF) Small Grants Programme. The GEF Small Grants Programme supports local community initiatives that promote the adoption of alternative fuels and affordable stoves that require less fuel to meet household energy needs and release fewer pollutants into the environment in project target areas. These stoves can help the project accomplish its Strategic Initiative 3: Low carbon energy access co-benefits, in the identified districts of the EEPUC project to develop evidence-based practical approaches for scaling-up and sustaining these interventions. This synergy brings strong entrepreneurship development and livelihood enhancement through income generation for the trained Champions and the vibrant dynamism of the Charcoal project.

Other Partners - Training is one of the primary means by which the project helps build the capacity of communities to reduce climate change impacts. The Department of Forestry in the Ministry of Agriculture, Forestry and Food Security (MAFF) continues to provide technical backstopping and facilitate training to the community woodlots people. MAFFS also helps communities build capacity through a variety of diverse but complementary means, including technical assistance and training. As a result of this partnering, most project-financed training resulted in individual participant learning, and beyond that improved the capacity of client group and communities to achieve development objectives.

# Challenges Lessons learned and Recommendations

In facilitating an increased number of investments in improved, more efficient charcoal and improved cookstove production has been quite slow. BRAC identified in the project document to play a leading role in the loan and grant scheme failed to take the role and to contribute. The delays or difficulties faced during implementation of the loan and grant/rebate scheme were escalated to the Regional Office so that the appropriate support or corrective measures can be adopted in a timely and remedial fashion. The GEF guideline on grant was being update. The Project Management Unit (PMU) awaited the reviewed GEF guideline on grant as the Regional Office (RO) was reviewing guidelines on the use of GEF-funded projects for grants. To overcome these challenge, it was later agreed between the RO and Country Office (CO) to repurpose the fund for the loan guarantee scheme and to hire consultancy services of Chief Technical Advisor (CTA) and Financial Engineering Expert to provide support in the establishment of procedures, implementing arrangement, oversight and modalities for the implementation of start-up grant and end user rebate scheme. This is being pursued by the project.

Also, the lack of national-level cookstove quality standards makes it difficult for the few improved cookstove industries to build trust and brand loyalty with their customers. To respond, the project had procured laboratory equipment for setting up cookstove testing laboratory, but installation of the equipment was constrained by the unavailability of an expert within the country for the installation and the PMU contacted the supplier of the equipment to provide the service.

In the stakeholders’ engagement on the National Energy Policy review, the Minister of Energy on behalf of the Government stated that “the existence of inadequate regulations and standards, guidelines and bylaws posed major challenges to the Directorates of Energy in fulfilling its mandate on promoting renewable energy’. The Director of Energy said ‘the Renewable Energy and Energy Efficiency policies created a justifiable, aggressive national commitment to energy efficiency through the collaborative efforts with other partner organizations’. Based on this, the popularization of the Renewable Energy and Energy Efficiency policies was adopted in the programming. This is attributed to enhancing cost–effective ways to address the challenges of the high energy prices, air pollution, energy security and global climate change.

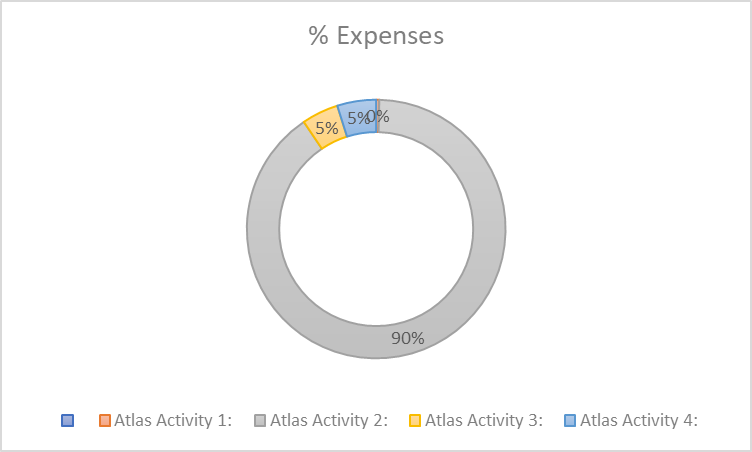
# Financial report 2018[[1]](#footnote-1)

**Table 1: Overview of available resources for the project duration**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Donor** | **contribution** | **Expenses** | | | | **Total expenses** | **Balance** |
|  | **Year 2016** | **Year 2017** | **Year 2018** |
| UNDP |  |  |  |  |  |  |  |
| GEF |  |  | **432,218.29** | 469,666.35 | 260,228.00 | 692,446.29 | 0 |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| TOTAL |  |  |  |  |  |  |  |

**Table 2: financial summary (Based on Project Transaction details)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Project Output** | **Planned Activities** | **Budget** | **Total expenses** | **Commitments** | **Balance** | **% utilization** |
| **(Activity Results)** |
| Atlas Activity 1: | Strengthened institutional capacity on biomass resource utilization at the national, regional and community level. Operational effective policy, legal, and regulatory frameworks and review mechanisms on biomass energy technology applications | 1,000 | 1,000.00 | 0 | 0 | 100 |
| Atlas Activity 2: | Development of public-private initiatives for the improved and more efficient production of charcoal and the scaling up of improved cookstove production | 234615.19 | 234615.19 | 0 | 0 | 100 |
| Atlas Activity 3: | Improved, more efficient production and efficient utilization of certified charcoal and cookstove | 11,950.00 | 11,950.00 | 0 | 0 | 100 |
| Atlas Activity 4: | Programme Management Costs | 12,662.81 | 12,662.81 | 0 | 0 | 100 |
| **Total** | | **260,228** | 260,228 | 0 | 0 | 100 |



# Monitoring and Evaluation

**Activities conducted during the year**

*List all M&E activities conducted during the year, including board meeting, field visiting, review meetings….*

|  |  |  |  |
| --- | --- | --- | --- |
| Date | Specify to which output it’s linked to | M&E Activity carried out | Budget spent on this activity |
| 23-27/10/18 | Output 1.2. | Day to day monitoring of implementation progress of the Renewable Energy and Energy Efficiency policies |  |
| 21 – 23/07/17 | Output 3.2 | Conduct monitoring through site visits to ascertain progress made in piloting of the community woodlot. |  |
| 21 – 26/04/18 | Output 3.2 | Progress Monitoring for Project Implementation Report (PIR)to see progress made toward project objective and project outcomes - each with indicators, baseline data and end-of-project targets. |  |
| 13/10 -30/11/18 | Output 3.2 | An independent Mid Term Review (MTR) of project implementation to determine progress being made toward the achievement of outcomes and to identify course correction if needed. |  |
| 13/02/2018  26/07/2018  16/08/2018 | Output 4.1. | Held Steering Committee Meetings as project reviews meetings in consultation with project implementation partners and stakeholder representatives. |  |

# Annexes

Section 1: Planned activities for next year

Section 2: Combined Delivery Report

Section 3: Monitoring and Evaluation Plan for next year.

Annex 2: Links toSuccess stories, Press release, any other

1. All financial information is an estimate reflecting the current financial situation. An adjusted financial report will be submitted after the closure of the financial year (March 2019). [↑](#footnote-ref-1)