

2019

Project Implementation Review (PIR)

**Sierra Leone Charcoal**

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# Basic Data

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| **Project Information** | |
| UNDP PIMS ID | 4904 |
| GEF ID | 4840 |
| Title | Energy Efficient Production and Utilization of Charcoal through Innovative Technologies and Private Sector Involvement |
| Country(ies) | Sierra Leone, Sierra Leone |
| UNDP-GEF Technical Team | Energy, Infrastructure, Transport and Technology |
| Project Implementing Partner | SLE10 (Sierra Leone) |
| Joint Agencies | *(not set or not applicable)* |
| Project Type | Full Size |

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| **Project Description** |
| The production and trade in charcoal has been a massive rural growth industry over the past decade in Sierra Leone. A minority urban fuel during the 1980s and 1990s, it has gradually displaced firewood and is now the fuelwood of choice for the majority of urban residents because: it is affordable by all cadres of society and the only option available for the many low waged urban employees; it is substantially more efficient than wood and burns with very limited smoke and less fire hazard (preferred by landlords) and it has higher calorific value and easier to transport than wood. As a result, many people consider charcoal a relatively modern fuel when burn on the modern stoves. 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.  Harvesting of wood for charcoal differs considerably to firewood as charcoal wood supplies are often obtained from forests and woodlands rather than farms. This is because in many of the higher production level villages, charcoal production conducted in addition to farming, instead of farming; as the trade has become lucrative enough for some villages that they have been able to give up their reliance on agriculture and purchase all household supplies from charcoal production income. At this rate, the pressure on natural resources will be exacerbated even further as communities produce more charcoal to meet their livelihood demands and urban charcoal consumer demand. It is worth noting, however, that one immediately evident issue is that some charcoal producers specifically target hardwood species of high commercial export value, resulting in an economically inefficient use of forest resources. 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.  Objectives of the Project: The overall goal of this project is “Energy Efficient Production and Utilization of Charcoal through Innovative Technologies and Private Sector Involvement in Sierra Leone.” 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. The project is well aligned with: i) the Agenda for Prosperity (2013-2017) to promote a low carbon, climate resilient, high growth, genders sensitive, inclusive and sustainable development path; and ii) the National Forestry Policy (2010) to promote the rehabilitation and conservation of forests, soil and water resources, and other relevant national policy and legal frameworks. |

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| **Project Contacts** | |
| UNDP-GEF Regional Technical Adviser | Mr. Faris Khader (faris.khader@undp.org) |
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| GEF Operational Focal Point | Abdul Salim (abdul\_salim007@yahoo.com) |
| Project Implementing Partner | Benjamin Kamara (benshinoh@gmail.com) |
| Other Partners | Sahr Kellie (kelliesahr@gmail.com) |

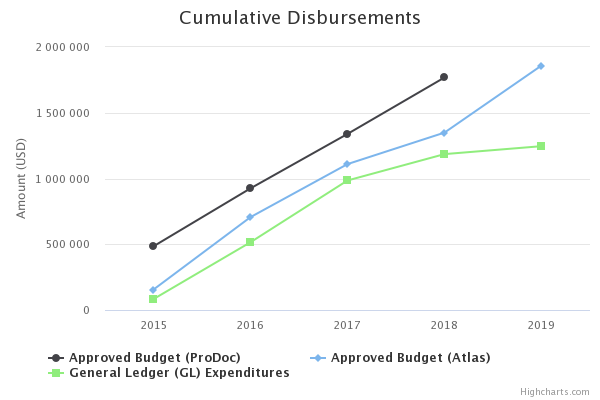
# Overall Ratings

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| Overall DO Rating | Unsatisfactory |
| Overall IP Rating | Unsatisfactory |
| Overall Risk Rating | Substantial |

# Development Progress

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| **Description** | | | | | | |
| **Objective**  **Removal of barriers to sustainable production and utilization of biomass resources in Sierra Leone and application of biomass energy technologies to support local economic, environmental and social development that leads to GHG mitigation** | | | | | | |
| **Description of Indicator** | **Baseline Level** | **Midterm target level** | **End of project target level** | **Level at 30 June 2018** | **Cumulative progress since project start** |
| Reduction of fuel wood consumption for energy use in households and industries by EOP, tonnes. | 0 | *(not set or not applicable)* | Up to 174,167 | N/A | This is not yet calculated. Please note that this will be calculated as soon as the lab equipment has been installed. The lab equipment is already being procured and the process will be completed by the end of September 2019. |
| No. of enterprises supplying clean and efficient charcoal by EOP. | 0 | *(not set or not applicable)* | At least 1,000 efficient kilns | 3 efficient kilns | 30 enterprises not efficient kilns. Enterprises and not efficient kilns. Note that the indicator is not aligned to the target (ref. prodoc pp 76: This issue has been raised in the past. we will be grateful if it is corrected to avoid confusion) |
| No. of households and industries that adopted, and are benefiting from, the energy-efficient furnaces/stoves by EOP. | 0 | *(not set or not applicable)* | Up to 15,000 | 800; An average of 8 cookstoves produced from those [100] who were trained in cookstove production. | 1,941 HHs; An average of 6 persons per HH. 11,643 cookstoves produced and supplied. |
| - | - | *(not set or not applicable)* | - | *(not set or not applicable)* | No industrial stoves/furnaces have been produced. 9 institutional stoves/furnaces have been produced benefitting 3 institutions (Eduaid -5, St. George's Orphanage home-2 and Sierra Leone Foundation for new Democracy (SLFND) -2 |
| **The progress of the objective can be described as:** | | **Off track** | | | | |
| **Outcome 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** | | | | | | |
| **Description of Indicator** | **Baseline Level** | **Midterm target level** | **End of project target level** | **Level at 30 June 2018** | **Cumulative progress since project start** |
| No. of sustainable charcoal and improved cookstoves production businesses that were proposed and developed as influenced by the strengthened policy and institutional frameworks for the deployment of stoves and kilns and biomass energy businesses by Year 2 | 0 | *(not set or not applicable)* | 46 improved cookstove and 100 charcoal producers | 40 improved cookstove and 20 charcoal producers | 40 improved cookstove and 45 charcoal producers |
| No. of biomass energy utilization projects that are planned and developed for PURE/SURE purposes by EOP | 0 | *(not set or not applicable)* | 15,0000 improved cookstoves and 1,000 end users | 800 cookstoves and 305 end users | 1,495 improved cookstoves and 8,970 end users |
| No. of policies and legal frameworks that are supportive of BET applications and biomass energy business development approved and enforced by Year 3 | 0 | *(not set or not applicable)* | 1 | 2 (Renewable Energy & Energy Efficiency policies) and 1 (National Energy Policy) in draft. | 2 (Renewable Energy and Energy Efficiency policies) and 1 (National Energy Policy) have been completed |
| Volume of funding made available for BET application projects by EOP, US$ | 0 | *(not set or not applicable)* | USD 200,000 (at least) | USD 173,000 | $173,000 |
| No. of relevant government agencies and institutions involved in biomass energy production and are linked with each other via a working mechanism for coordination by EOP. | 0 | *(not set or not applicable)* | 5 | 5 | 6 Government agencies and institutions (1. Ministry of Energy, 2. Ministry of Agriculture, 3. Environmental Protection Agency (EPA), 4. Government Technical Institute (GTI), 5. Environmental Foundation for Africa (EFA) and 6. Westwind Energy SL ) |
| **The progress of the objective can be described as:** | | **On track** | | | | |
| **Outcome 2**  **Increased number of investments on improved, more efficient charcoal and ICS production in Sierra Leone** | | | | | | |
| **Description of Indicator** | **Baseline Level** | **Midterm target level** | **End of project target level** | **Level at 30 June 2018** | **Cumulative progress since project start** |
|   No. of improved cook stoves produced (ICS) by Year 4 | 0 | *(not set or not applicable)* | 15000 | 800 | 11,643 |
|   No. of ICS bought and utilized by consumers annually starting Year 4 | 0 | *(not set or not applicable)* | 15000 | 800 | 11,643 |
|  No. of installed efficient charcoal kilns that are operational by EOP. | 0 | *(not set or not applicable)* | 1000 | 100 | 110 |
|  No. of institutional furnaces/stoves installed & being used on a daily basis by households in targeted areas by EOP | 0 | *(not set or not applicable)* | 700 | 100 | 9 |
|  No. of industrial stoves installed and are operational by EOP. | 0 | *(not set or not applicable)* | 300 | 3 | 0 |
|   Total volume of investments on biomass energy technology applications by EOP, US$ million | 0 | *(not set or not applicable)* | USD 500,000 | 0 | A private sector company (WestWind SL Ltd) has already been identified and we are in the process of entering into a responsible party agreement for the production of cookstoves through a rebate system. |
| **The progress of the objective can be described as:** | | **Off track** | | | | |
| **Outcome 3**  **The production and utilization of certified charcoal and certified improved cook stoves are common practices in Sierra Leone** | | | | | | |
| **Description of Indicator** | **Baseline Level** | **Midterm target level** | **End of project target level** | **Level at 30 June 2018** | **Cumulative progress since project start** |
|   No. of new proposed and planned project developments that replicates successfully operating stoves and kilns application projects by Year 4 | 0 | *(not set or not applicable)* | 3 | 1 | 0 |
|   No. of stoves and kilns replication projects that are approved and for implementation by Year 4 | 0 | *(not set or not applicable)* | 3 | 1 | 4 stove designs - Single Burner charcoal Stove, Double Burner Charcoal Stove, Wood Burner Stove and Oven (Commercial and Domestic) |
|   No. of completed stoves and kilns replication projects by EOP | 0 | *(not set or not applicable)* | 3 | 1 | 0 |
| **The progress of the objective can be described as:** | | **Off track** | | | | |
| **Outcome 4**  **Enhanced capacity of stakeholder in the value chain (producers, farmers, villagers, women, consumers, collectors)** | | | | | | |
| **Description of Indicator** | **Baseline Level** | **Midterm target level** | **End of project target level** | **Level at 30 June 2018** | **Cumulative progress since project start** |
| No. of local manufacturing firms that can fabricate and install equipment/components used in stoves and kilns systems by Year 4 | 1 | *(not set or not applicable)* | 146 | 10 | 11. 10 were identified and an additional one was identified in 2019 |
| No. of trained and qualified men and women technicians working on stoves and kilns application projects by EOP | 0 | *(not set or not applicable)* | 3,000 champions | 100 | 120 trained and qualified men and women. 100 were trained last year and an additional of 20 were trained by WestWind SL Ltd. |
| No. of local development plans that integrate biomass energy use, stoves and kiln applications, and biomass industry development prepared by local government men and women planners by EOP | 0 | *(not set or not applicable)* | 5 | 0 | This has been planned for and will be realized by September 2019 |
| No. of local men and women financial officers that are capable of evaluating biomass energy and other RE project proposals by EOP | 0 | *(not set or not applicable)* | 15 | 0 | Not yet trained |
| No. of local entrepreneurs and SMEs that are gainfully involved in businesses that make up the value chain of the bioenergy application industry by EOP | 0 | *(not set or not applicable)* | 25 | 5 | 5 |
| - | - | *(not set or not applicable)* | - | *(not set or not applicable)* | *(not set or not applicable)* |
| **The progress of the objective can be described as:** | | **Off track** | | | | |

# Implementation Progress



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| Cumulative GL delivery against total approved amount (in prodoc): | 70.46% |
| Cumulative GL delivery against expected delivery as of this year: | 70.46% |
| Cumulative disbursement as of 30 June (note: amount to be updated in late August): | 1,245,819 |

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| **Key Financing Amounts** | |
| PPG Amount | 50,000 |
| GEF Grant Amount | 1,768,182 |
| Co-financing | 9,000,000 |

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| **Key Project Dates** | |
| PIF Approval Date | Nov 15, 2012 |
| CEO Endorsement Date | Oct 16, 2014 |
| Project Document Signature Date (project start date): | Apr 24, 2015 |
| Date of Inception Workshop | Feb 5, 2016 |
| Expected Date of Mid-term Review | Aug 30, 2019 |
| Actual Date of Mid-term Review | Sep 3, 2019 |
| Expected Date of Terminal Evaluation | Dec 31, 2019 |
| Original Planned Closing Date | Dec 31, 2019 |
| Revised Planned Closing Date | *(not set or not applicable)* |

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| **Dates of Project Steering Committee/Board Meetings during reporting period (30 June 2018 to 1 July 2019)** |
| 2019-08-16 |
| 2018-07-30 |
| 2019-02-08 |

# Critical Risk Management

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| Current Types of Critical Risks | Critical risk management measures undertaken this reporting period |
| Financial | 1. Because of UNDP limitation to implement the loan scheme, this has been subdued into grant and rebate scheme and the project is now working on entering into Standard Responsible Agreement with a private sector to implement this aspect of the project.    2. The anticipated co-financing from BRAC did not also materialize. In the place of this, the project has allocated funds to support the grant and rebate scheme. |

# Adjustments

**Comments on delays in key project milestones**

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| **Project Manager: please provide comments on delays this reporting period in achieving any of the following key project milestones: inception workshop, mid-term review, terminal evaluation and/or project closure. If there are no delays please indicate not applicable.** |
| The UNDP-GEF Project Midterm Review was due within the first half of 2018. The Terms of Reference for both national and international consultancies for this Midterm Review was developed and advertised for the consultancy placed at the UN website. Application were only received for the international role but not for national consultancy and this a delay. This was re-advertised with advert placed in more local newspapers to widen the scope of search and lead to recruiting the National consultant. |

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| **Country Office: please provide comments on delays this reporting period in achieving any of the following key project milestones: inception workshop, mid-term review, terminal evaluation and/or project closure. If there are no delays please indicate not applicable.** |
| The UNDP-GEF Project Midterm Review was due within the first half of 2018. The Terms of Reference for both national and international consultancies for this Midterm Review was developed and advert for the consultancy placed at the UN website. Application were only received for the international role but not for national consultancy. This was re-advertised with advert placed in more local newspapers to widen the scope of search. |

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| **UNDP-GEF Technical Adviser: please provide comments on delays this reporting period in achieving any of the following key project milestones: inception workshop, mid-term review, terminal evaluation and/or project closure. If there are no delays please indicate not applicable.** |
| There was a substantial delay in conducting the mid-term review due to the reasons outlined above. As a result, the project lost valuable time in identifying potential course correction activities. |

# Ratings and Overall Assessments

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| **Role** | **2019 Development Objective Progress Rating** | **2019 Implementation Progress Rating** |
| **Project Manager/Coordinator** | Moderately Unsatisfactory | *- IP Rating provided by UNDP-GEF Technical Adviser and UNDP Country Office only -* |
| Overall Assessment | The DO rating is Moderately unsatisfactory however, some progress was made in achieving the Outcomes. On operational effective policy, legal, and regulatory frameworks and review mechanisms on biomass energy technology applications, the Renewable Energy (RE) and Energy Efficiency (EE) policies have been developed and popularized with project support. The draft review of the 2009 National Energy Policy 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)    The cooking Energy Action Plan for the implementation and of sustainable charcoal and improved cookstoves business is in its draft form and it is to be validated and approved by the government.    One Cookstove and Charcoal Development Center has been selected. The modality of setting up of the cookstove and charcoal testing Laboratory in the CCD Center is in process and this will be made functional by the end of September 2019 .    Progress towards achieving Outcome 2 on 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. Also, as the Regional Office (RO) was reviewing guidelines on the use of GEF-funded projects for grants, the Project Management Unit (PMU), awaited guidance from the Regional office to proceed. 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.    The procurement process for the hiring of the Engineering Expert was initiated and completed. The contract was awarded but the consult did not turn up. For the CTA, procurement process was initiated and long and short listing done but the project was not able to get a suitable person. To manage this risk, the Project Management Unit in consultation with the GEF Regional Office has agreed to implement this aspect through a private sector entering into Low Value Performance based payment agreement. This modality is now being pursed    Progress towards achieving Outcome 3 on the production and utilization of certified charcoal and certified improved cookstoves is quite impressive with piloted woodlots in four communities. In all, 48.6 ha of Acacia Mangium, Acacia Auriculiformis Tectonia Gratis, Australia Eucalyptus, Cashew nuts, Mango, Elies and Gmelina Aborea trees were planted in Mawoma, Makolerr and Robana communities in the Mawoma section of Port Loko District and Moyamba Junction in Moyamba District. The establishment of renewable bioenergy woodlots will serve as learning hubs for the scaling out of sustainable approach for the production of ‘certified’ firewood and charcoal production in Sierra Leone.    The sustainability of these pilot renewable bioenergy woodlots depends on the protection, maintenance and management through increased community knowledge, and enhanced community involvement and participation to keep the woodlots from insects infestation, weeds, wildfire and human encroachment. Therefore, a two-day field training was organized for each woodlot community where a team of facilitators from the MAFFS engaged stakeholders on theory and practical training sessions in each of the woodlot communities. Workshop participants include a total number of 420 community participants from respective groups in Moyamba Junction, Mawoma, Makolerr and Robana woodlot communities. During the practical session, brushing, pruning and fire-belts were established. Also, training on the sustainable production and utilization of charcoal has been conducted for 50 participants aiming at reducing GHG emissions in the rural households and industrial sectors.      The project has supported the approval and popularization of both the Renewable Energy (RE) and Energy Efficiency (EE) policies which is paving the way for a reviewed and harmonized of national energy policy. Though the target was 1, these 2 policies and the national energy policy when fully operationalized will guarantee adequate, reliable, affordable, equitable and sustainable supply of renewable and efficient energy, cost-reflective and in an environmentally friendly manner. Beyond this, they will contribute to outcome 1 which is the removal of barriers to sustainable production and utilization of biomass resources in Sierra Leone and application of biomass energy technologies to support local economic, environmental and social development that leads to GHG mitigation. The number of relevant government agencies the project is working with remains on target at 5.    The number of people supplying charcoal is growing with demand for charcoal, but the number of sustainable charcoal and improved cookstoves production enterprises remain low. This could be attributed to low capital investment in the value chain for clean and efficient charcoal production and the deployment of stoves and kilns. An inventory and assessment of relevant CBOs which are key entities in the implementation of the roll-out mechanism to disseminate up to 15,000 stoves and 1,000 kilns targeted in this project indicates lack the financial capacity for biomass energy businesses expansion even with their experience in cookstove production. With the delay in incentivizing the business with grant and rebate scheme, the number of biomass energy utilization projects that are planned and developed for Solutions Using Renewable Energy (SURE) remains zero. This delay was exacerbated by the no interest expression of BRAC to co-finance and participate in the project, and the review of the GEF grant policy at Regional level. The total volume of investment in biomass energy technology applications is low but it is expected to hit target once this challenge is overcome. To overcome this challenge, the project seeks the services of Chief Technical Advisor and Financial Engineering Expert.    In pursing the production and utilization of certified charcoal and certified improved cook stoves as common practices in Sierra Leone, the project has established over 48.6 hectares of woodlots and built the capacity of community partners through trainings. Up to 5 of the 520 trained (including the Makolerr chairlady) in woodlot establishment and maintenance have embarked on establishing private woodlots on their own land at small scale. However, two of such pilot woodlots suffered alongside the Makolerr community from wild fire. In mitigating this fire risk, the Paramount Chief and his chiefs have prohibited any burning of farm without informing the local authorities and fire-belts have been established for all the four sites. The project provided seedlings for replacement..  Overall, some progress was made towards achieving the project outcomes this year. It is of the opinion of that the grant and rebate scheme would subsequently through a private sector ( Westwind Energy SL LTD) and the installation of the Lab for testing of cookstove at the CCDC will influence the achievements the remaining target for an improved, more efficient charcoal and improved cookstove production and utilization in Sierra Leone. | |
| **Role** | **2019 Development Objective Progress Rating** | **2019 Implementation Progress Rating** |
| **UNDP Country Office Programme Officer** | Moderately Unsatisfactory | Moderately Satisfactory |
| Overall Assessment | Programme progress was made in achieving the overall project objective despite substantial challenges in the implementation of the grant and rebate scheme. 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 providing secure and affordable energy services. 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.    Some progress was made towards achieving Outcome 2 on facilitating an increased number of investments in improved, more efficient charcoal and improved cookstove production. An assessment and inventory of value chain actors in the cookstove business supported the different technical functions in modelling efficient cookstove grant mechanism to synthesize coherent biomass technology interventions. Despite the economic benefits of improved cook stoves (ICS) technologies to improve health and time savings for households, enhance the preservation of forests and associated ecosystem services, and guarantee reducing emissions that contribute to global climate change, progress in achieving large-scale adoption and use has been remarkably low.    Though the supportive policy environment created by the RE and EE policies is essential for supporting sustained adoption of improved cookstoves, there are no regulations or incentives in place to facilitate the longterm adoption of this bioenergy technology. So, creating financial incentives for users will enhance the upscaling of improved cookstove production and use. However, the implementation of a loan, grant and rebate scheme could not be realized this reporting period due to the lack of willingness by partners such as BRAC to co-finance and to lead the implementation of loan and grant scheme. Another challenge is that the PMU awaited the GEF guideline on grant which was being update. 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. Though the project had procured laboratory equipment for setting up cookstove testing laboratory, installation of the equipment was constrained by the availability of an expert in-country for the installation. The PMU has contacted the supplier of the equipment and is willing to provide the service.    Some progress was made in achieving Outcome 3 on the production and utilization of certified charcoal and certified improved cook stoves. Because of the unsustainable harvesting of fuel wood, and its contribution to deforestation and land degradation, the project pursues woodlot establishment with preferably fast growing tress of economic value for the benefit of reduced deforestation and sustained certify charcoal production. The difficulty in ensuring the sustainability of the bio-energy solutions and business beyond the pilot and demonstration phase lies in the community woodlot established which requires community group cohesion. The maintenance of the woodlots is attributed to the strengthened capacity of the community groups and end users stakeholders through continually improved cost effective and result-based training of bio-energy champions. The training considered the needs of both men and women in the target groups where the community woodlot are established for sustainable charcoal production.  Campaign activities of the country’s national presidential, parliamentary and local council elections posed a risk to project implementation as collaboration with the implementing partners including the Ministry of Energy and Ministry of Agriculture, Forestry and Food Security (MAFFS) became a challenge. Activities affected were prioritized for early implementation next year. In managing the strategic risk of staff willingness to adopt new knowledge and practice, especially for the grant scheme, the consultancy services for a Financial Engineering Expert is sought. | |
| **Role** | **2019 Development Objective Progress Rating** | **2019 Implementation Progress Rating** |
| **GEF Operational Focal point** | *(not set or not applicable)* | *- IP Rating provided by UNDP-GEF Technical Adviser and UNDP Country Office only -* |
| Overall Assessment | *(not set or not applicable)* | |
| **Role** | **2019 Development Objective Progress Rating** | **2019 Implementation Progress Rating** |
| **Project Implementing Partner** | Moderately Satisfactory | *- IP Rating provided by UNDP-GEF Technical Adviser and UNDP Country Office only -* |
| Overall Assessment | *(not set or not applicable)* | |
| **Role** | **2019 Development Objective Progress Rating** | **2019 Implementation Progress Rating** |
| **Other Partners** | *(not set or not applicable)* | *- IP Rating provided by UNDP-GEF Technical Adviser and UNDP Country Office only -* |
| Overall Assessment | *(not set or not applicable)* | |
| **Role** | **2019 Development Objective Progress Rating** | **2019 Implementation Progress Rating** |
| **UNDP-GEF Technical Adviser** | Unsatisfactory | *(not set or not applicable)* |
| Overall Assessment | This project has struggled almost since its inception due to a number of factors including: an overly ambitious project design, the inclusion of financial instruments in the project document, the detailed design of which was left to the implementation stage, a longer than expected revision and update of UNDP’s financial rules and regulations, co-financing of nearly $1.7 million from BRAC that did not materialize, and ineffective project management for the first three years of the project. With just a few months remaining until the originally planned closure date, the result of these serious design and implementation challenges is that the project, despite having disbursed $1.2 million, has very few results on the ground to show for it. A rating of Unsatisfactory has been assigned for development objective progress as substantiated below.    To highlight just a few of the project design flaws, the project goal was included in the results framework, which does not follow standard UNDP-GEF practice as typically a project will contribute to a goal but will not achieve it on its own. In this case, indicators and targets were also included at the goal level, which again deviates from standard practice. Some of the key end of project targets were wildly ambitious for a project with a GEF grant of just under $1.8 million, such as:  ▪ 15,000 improved cook stoves produced and purchased by consumers annually  ▪ 1,000 efficient charcoal kilns are operational  ▪ 700 institutional stoves installed and operational  ▪ 300 industrial stoves installed and operational  The project document included three financial incentive schemes, without a detailed design and without any guidance on how to operationalize them. These include:  1) a start-up grant for cook stove producers to cover the cost of production, with a gradual reduction towards the end of the project;  2) an end-user rebate for rural consumers provided to subsidize the cost of the improved stoves; and  3) a loan guarantee scheme for entrepreneurs in the stoves/furnaces/kilns value chain business.    It is difficult enough to operationalize one financial instrument. Three different financial incentive schemes was always going to be impossible to implement. With more than 40 planned activities, arguably, the design featured too many activities and tried to do too much for a project with a fairly limited budget. At the same time, a much stronger project management unit should have been put in place at the outset.    At this stage, it is fair to say that the project objective and outcomes 2 and 3 are off track. At the objective level, the stove testing lab has still not been set up, despite the fact that it was supposed to have been established in year 1. There was a missed opportunity to collaborate with partners such as GERES, ECREEE and the GIZ Energizing Development Programme to set up the stove and charcoal testing laboratory. As a result of this lost opportunity and the limited progress made under Outcome 2, the project is not able to report any energy savings at this stage, which is a key measure of project success. The project estimates that 30 enterprises are supplying clean and efficient charcoal, although a corresponding EOP target was not set for this indicator, which again points to a project design oversight. To what extent the project can claim credit for this result is an open question. It is estimated that more than 1,900 households are benefiting from energy efficient furnaces and stoves but again there is a question about attribution.    Tangible progress has been made under Outcome 1 regarding strengthened institutional capacity on biomass resource utilization. Notably, the Renewable Energy and Energy Efficiency policies have been approved by the government. The project contributed to both policies, which serve as a strategic framework for the transition to affordable, reliable and sustainable energy services. At the same time, the review of the National Energy Policy has been completed and is now awaiting approval. Despite these positive policy developments, the PIR notes that there are no regulations or incentives in place to facilitate the long-term adoption of modern bioenergy technology. While the proposed start-up grant for improved cook stove producers will go some way in bridging the gap, this will require sustained attention by the government following project completion. Six government agencies and institutions are now involved in biomass production but coordination between the agencies could be strengthened further.    Due to extensive delays in operationalizing the financial mechanism, very little progress has been made under Outcome 2, which relates to an increased number of investments in improved, more efficient charcoal and improved cook stove production. In consultation with UNDP-GEF management and the Country Office, the following action plan has been put in place. It has been agreed that a one-year project extension will be granted only on condition that the following milestones are met:  ▪ The Invitation to Bid to select a qualified cook stove producer should be advertised by 30 September 2019.  ▪ The responsible party agreement with the selected cook stove producer should be signed by both parties by 31 October 2019.  ▪ A Chief Technical Advisor should be recruited by 31 October 2019. In addition to providing strategic guidance on project implementation, the CTA would be responsible for helping to ensure delivery and disbursement of project funds in accordance with agreed Annual Work Plans.  If any of these milestones are not met, the project should be closed as per the originally planned closing date of December 2019, in which case the Country Office should take steps to wind down project activities and should commission the terminal evaluation in a timely manner.    Unfortunately, the project and Sierra Leone more broadly are far away from the achievement of Outcome 3.1, which is that the production and utilization of certified charcoal and certified improved cook stoves are common practices in Sierra Leone. As of now, there are no planned replication projects. Similarly, Outcome 3.2 on enhanced capacity of stakeholders in the value chain is also off track. Against an end of project target of 3,000 champions, only 120 men and women have been trained thus far. Local development plans have not yet integrated more sustainable biomass energy use. Financial officers have not yet been trained and only five local entrepreneurs are involved in bioenergy applications against a target of 25.    A rating of Unsatisfactory has been assigned for implementation progress because critical risks have not been managed well to date, annual delivery stands at only 19%, and cumulative delivery is well below where it should be considering that the project only has a few months remaining according to its original implementation schedule.    Key 2018 targets included:  1. One policy that is supportive of biomass energy technology applications.  2. One standard and certification for more efficiently produced charcoal and improved cookstoves  3. One Cookstove and Charcoal Development Center (CCDC) established and functional  4. Two private sector and/or two local communities involved in biomass energy production  5. 15 grants disbursed for the production of efficient charcoal cookstoves and kilns  6. 15,000 improved cook stoves produced.  7. One gender sensitive capacity development and training modules for the production and utilization of certified charcoal and ICS  8. Five sensitization campaigns for key value chain actors  9. 60 hectares of community-based agroforestry establishment    Apart from the first target, the project missed all of the other targets. In addition, almost all of the mid-term review recommendations remain pending. This points to the need for urgent course correction as outlined above. One of the main recommendations of the mid-term review is that the implementing agency should immediately establish an M&E mechanism so that project activities can be monitored closely and feedback is provided on time to strengthen adaptive management. This will also be important to assess the impacts of the project. If the project is extended, it would be useful for the Project Manager to reach out to other UNDP-supported charcoal projects in the region to exchange lessons and experiences. | |

# Gender

**Progress in Advancing Gender Equality and Women's Empowerment**

This information is used in the UNDP-GEF Annual Performance Report, UNDP-GEF Annual Gender Report, reporting to the UNDP Gender Steering and Implementation Committee and for other internal and external communications and learning.  The Project Manager and/or Project Gender Officer should complete this section with support from the UNDP Country Office.

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| **Gender Analysis and Action Plan:** *not available* |
| **Please review the project's Gender Analysis and Action Plan. If the document is not attached or an updated Gender Analysis and/or Gender Action Plan is available please upload the document below or send to the Regional Programme Associate to upload in PIMS+. Please note that all projects approved since 1 July 2014 are required to carry out a gender analysis and all projects approved since 1 July 2018 are required to have a gender analysis and action plan.** |
| [EEPUC Gender Report.pdf](https://undpgefpims.org/attachments/4904/213657/1728498/1743124/EEPUC%20Gender%20Report.pdf) |

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| **Please indicate in which results areas the project is contributing to gender equality (you may select more than one results area, or select not applicable):** |
| Contributing to closing gender gaps in access to and control over resources: Yes |
| Improving the participation and decision-making of women in natural resource governance: Yes |
| Targeting socio-economic benefits and services for women: Yes |
| Not applicable: No |

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| **Atlas Gender Marker Rating** |
| **GEN2:** gender equality as significant objective |

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| **Please describe any experiences or linkages (direct or indirect) between project activities and gender-based violence (GBV). This information is for UNDP use only and will not be shared with GEF Secretariat.** |
| N/A |

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| **Please specify results achieved this reporting period that focus on increasing gender equality and the empowerment of women.**    **Please explain how the results reported addressed the different needs of men or women, changed norms, values, and power structures, and/or contributed to transforming or challenging gender inequalities and discrimination.** |
| The different needs of men and women were captured in the review and harmonization of the National Energy Policy. Relevant equality issues across a much broader spectrum including pricing schedules, investment priorities, infrastructure investments, equitable participation by women and men and access and availability of energy supply. The reviewed national energy policy when approved will ensure equal opportunities for both women and men and contribute to transforming or challenging gender inequalities and discrimination. |

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| **Please describe how work to advance gender equality and women's empowerment enhanced the project's environmental and/or resilience outcomes.** |
| The policy documents acknowledge that conventional energy approaches virtually exclude women’s concerns and therefore have specific sections on “Gender, children and energy” with a clear objective to develop policies and strategies to ensure women’s economic and social empowerment; and build capacity of women to work in the energy sector. This greatly contributes to the project’s environmental outcome which seeks to overcome the policy and regulatory barriers to the scaling up of improved cookstoves and efficient charcoal kilns. |

# Social and Environmental Standards

**Social and Environmental Standards (Safeguards)**

The Project Manager and/or the project’s Safeguards Officer should complete this section of the PIR with support from the UNDP Country Office. The UNDP-GEF RTA should review to ensure it is complete and accurate.

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| **1) Have any new social and/or environmental risks been identified during project implementation?** |
| No |

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| **If any new social and/or environmental risks have been identified during project implementation please describe the new risk(s) and the response to it.** |
| *(not set or not applicable)* |

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| **2) Have any existing social and/or environmental risks been escalated during the reporting period? For example, when a low risk increased to moderate, or a moderate risk increased to high.** |
| No |

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| **If any existing social and/or environmental risks have been escalated during implementation please describe the change(s) and the response to it.** |
| *(not set or not applicable)* |

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| **SESP:** [PIMS 4904 EEPUC SL ESSP Checklist and Summary 25072014.docx](https://undpgefpims.org/attachments/4904/213657/1707687/1708779/PIMS%204904%20EEPUC%20SL%20ESSP%20Checklist%20and%20Summary%2025072014.docx)  **Environmental and Social Management Plan/Framework:** [PIMS 4904 EEPUC SL ESSP Checklist and Summary 25072014.docx](https://undpgefpims.org/attachments/4904/213657/1675270/1675551/PIMS%204904%20EEPUC%20SL%20ESSP%20Checklist%20and%20Summary%2025072014.docx) |
| **For reference, please find below the project's safeguards screening (Social and Environmental Screening Procedure (SESP) or the old ESSP tool); management plans (if any); and its SESP categorization above. Please note that the SESP categorization might have been corrected during a centralized review.** |
| *(not set or not applicable)* |

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| **3) Have any required social and environmental assessments and/or management plans been prepared in the reporting period? For example, an updated Stakeholder Engagement Plan, Environmental and Social Impact Assessment (ESIA) or Indigenous Peoples Plan.** |
| No |

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| **If yes, please upload the document(s) above. If no, please explain when the required documents will be prepared.** |
| *(not set or not applicable)* |

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| **4) Has the project received complaints related to social and/or environmental impacts (actual or potential )?** |
| No |

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| **If yes, please describe the complaint(s) or grievance(s) in detail including the status, significance, who was involved and what action was taken.** |
| *(not set or not applicable)* |

# Communicating Impact

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| **Tell us the story of the project focusing on how the project has helped to improve people’s lives.**  **(This text will be used for UNDP corporate communications, the UNDP-GEF website, and/or other internal and external knowledge and learning efforts.)** |
| The Energy Efficient Production and Utilization of Charcoal project aims to bring economic, social and environmental benefits through the production of certified charcoal from renewable woodlots and through the promotion of improved cookstoves to reduce fuel wood/charcoal demand, while improving users’ health and reduce greenhouse gas emissions in Sierra Leone. In collaboration with the Ministry of Agriculture and Forestry (MAF) and the Ministry of Energy (MoE) provided technical support in the design and establishment of renewable bioenergy woodlots for ‘Certified’ Firewood and Charcoal Production based on a value chain approach. In all, over 48.6 ha. of Acacia Mangium, Acacia Auriculiformis Tectonia Gratis, Australia Eucalyptus, Cashew nuts, Mango, Elies and Gmelina Aborea trees were planted in Mawoma, Makolerr and Robana communities in the Mawoma section of Port Loko District and Moyamba Junction in Moyamba District. The establishment of renewable bioenergy woodlots served as learning hubs for the scaling out of sustainable approach for the production of ‘certified’ firewood and charcoal production in Sierra Leone. In the area of sustainability, Woodlots management committees have established for each of the four woodlots communities.The Community ownership of the woodlots have had an impact on business ventures and conservation, and with this sense of ownership the communities now look after the woodlots and will be able to reap the benefits in terms of conserving the Environment and from business partnerships.    Energy is strongly linked to the climate and the environment. The production and trade in charcoal has been a massive rural growth industry over the past decade in Sierra Leone. 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. The Global Environment Facility (GEF) funded project on “Energy Efficient Production and Utilization of Charcoal through Innovative Technologies and Private Sector Involvement in Sierra Leone” seeks to overcome the regulatory, institutional, technical, financial and social barriers for the scaling up of 1,000 efficient and certified charcoal kilns and 15,000 certified improved cookstove across Sierra Leone by operational effective policy, legal, and regulatory frameworks and review mechanisms on biomass energy technology applications.    Given its objective, this GEF-funded project interventions focused on making the trade and business more efficient, resilient and sustainable by incentivizing all value chain actors as inclusive business. The project works closely with the Ministry of Energy (MOE), Forestry Division in the Ministry of Agriculture, Forestry and Food Security (MAFFS), Ministry of Trade and Industry (MTI), households and community-based institutions as prime beneficiaries who will act as key partners, under the tutelage of the Ministry of Energy.    The popularization of the Renewable Energy and Energy Efficiency policies is attributed to enhancing cost–effective ways to address the challenges of the high energy prices, air pollution, energy security and global climate change. In the stakeholders’ engagement on the National Energy Policy review, the Minister of Energy 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’. In his address, 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’. Beyond this, the policies could also boost economic growth and social development through the local economy, poverty alleviation and creation of downward pressure on natural gas prices and volatility. The Minister of Energy when addressing the power supply concern in the country said, “The energy policies to the new government with its New Direction strategy is an important contributor to increased efficiency, energy affordability, improved health, wellbeing, jobs, consumer surplus and energy security which can contribute to lower greenhouse gas emissions and global climate change.” Significant evidence is emerging on the extent to which these outcomes is attributed to the popularization of the renewable energy and energy efficiency policies. Expanding popularization far and wide in the country as part of a wider socioeconomic strategy could offer a new perspective on energy efficiency measures and could help decision-makers reconcile perceived trade-offs between supporting economic growth and reducing energy use. |

**Knowledge Management, Project Links and Social Media**

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| **Please describe knowledge activities / products as outlined in knowledge management approved at CEO Endorsement /Approval.**    **Please also include: project's website, project page on the UNDP website, blogs, photos stories (e.g. Exposure), Facebook, Twitter, Flickr, YouTube, as well as hyperlinks to any media coverage of the project, for example, stories written by an outside source. Please upload any supporting files, including photos, videos, stories, and other documents using the 'file lirbary' button in the top right of the PIR.** |
| https://bit.ly/2Kai7PM;  https://bit.ly/2yvcxpS;  https://bit.ly/2IeP7Ve  Premier News - Front Page May 31, 2018  Standard Times - Front Page May 31, 2018. |

# Partnerships

**Partnerships & Stakeholder Engagment**

Please select yes or no whether the project is working with any of the following partners. Please also provide an update on stakeholder engagement. This information is used by the GEF and UNDP for reporting and is therefore very important!  All sections must be completed by the Project Manager and reviewed by the CO and RTA.

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| **Does the project work with any Civil Society Organisations and/or NGOs?** |
| Yes |

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| **Does the project work with any Indigenous Peoples?** |
| Yes |

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| **Does the project work with the Private Sector?** |
| Yes |

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| **Does the project work with the GEF Small Grants Programme?** |
| Yes |

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| **Does the project work with UN Volunteers?** |
| No |

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| **Did the project support South-South Cooperation and/or Triangular Cooperation efforts in the reporting year?** |
| *(not set or not applicable)* |

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| **CEO Endorsement Request:** [PIMS 4904 Sierra Leone Charcoal CER 25072014.docx](https://undpgefpims.org/attachments/4904/213657/1675276/1675557/PIMS%204904%20Sierra%20Leone%20Charcoal%20CER%2025072014.docx) |
| **Provide an update on progress, challenges and outcomes related to stakeholder engagement based on the description of the Stakeholder Engagement Plan as documented at CEO endorsement/approval (see document below). If any surveys have been conducted please upload all survey documents to the PIR file library.** |
| 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 community-based organizations (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 was identified as partner of the Energy Efficient Production and Utilization of Charcoal (EEPUC) project, and is working closely with the project and other partners to collectively train Cookstove fabricators as well as disseminating 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.    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 will bring strong entrepreneurship development and livelihood enhancement through income generation for the trained Champions and the vibrant dynamism of the Charcoal project.    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. It was found that most project-financed training resulted in individual participant learning, and beyond that improved the capacity of client group and communities to achieve development objectives |

# Annex - Ratings Definitions

**Development Objective Progress Ratings Definitions**

(HS) Highly Satisfactory: Project is on track to exceed its end-of-project targets, and is likely to achieve transformational change by project closure. The project can be presented as 'outstanding practice'.

(S) Satisfactory: Project is on track to fully achieve its end-of-project targets by project closure. The project can be presented as 'good practice'.

(MS) Moderately Satisfactory: Project is on track to achieve its end-of-project targets by project closure with minor shortcomings only.

(MU) Moderately Unsatisfactory: Project is off track and is expected to partially achieve its end-of-project targets by project closure with significant shortcomings. Project results might be fully achieved by project closure if adaptive management is undertaken immediately.

(U) Unsatisfactory: Project is off track and is not expected to achieve its end-of-project targets by project closure. Project results might be partially achieved by project closure if major adaptive management is undertaken immediately.

(HU) Highly Unsatisfactory: Project is off track and is not expected to achieve its end-of-project targets without major restructuring.

**Implementation Progress Ratings Definitions**

(HS) Highly Satisfactory: Implementation is exceeding expectations. Cumulative financial delivery, timing of key implementation milestones, and risk management are fully on track. The project is managed extremely efficiently and effectively. The implementation of the project can be presented as 'outstanding practice'.

(S) Satisfactory: Implementation is proceeding as planned. Cumulative financial delivery, timing of key implementation milestones, and risk management are on track. The project is managed efficiently and effectively. The implementation of the project can be presented as 'good practice'.

(MS) Moderately Satisfactory: Implementation is proceeding as planned with minor deviations. Cumulative financial delivery and management of risks are mostly on track, with minor delays. The project is managed well.

(MU) Moderately Unsatisfactory: Implementation is not proceeding as planned and faces significant implementation issues. Implementation progress could be improved if adaptive management is undertaken immediately. Cumulative financial delivery, timing of key implementation milestones, and/or management of critical risks are significantly off track. The project is not fully or well supported.

(U) Unsatisfactory: Implementation is not proceeding as planned and faces major implementation issues and restructuring may be necessary. Cumulative financial delivery, timing of key implementation milestones, and/or management of critical risks are off track with major issues and/or concerns. The project is not fully or well supported.

(HU) Highly Unsatisfactory: Implementation is seriously under performing and major restructuring is required. Cumulative financial delivery, timing of key implementation milestones (e.g. start of activities), and management of critical risks are severely off track with severe issues and/or concerns. The project is not effectively or efficiently supported.