



*Empowered lives.
Resilient nations.*

Energy Efficient Production and Utilization of Charcoal through Innovative Technologies and Private Sector Involvement in Sierra Leone.



CONSULTANCY REPORT ON GENDER ANALYSIS AND TRAINING

Rosaline MCarthy

Consultant

December, 2017

Abbreviation and Acronyms

EEPUC – Efficient Energy Production and Utilization of Charcoal

EPA – Environmental Protection Agency

FDG - Focus Group Discussions

GEF - Global Environment Facility

MAFFS – Ministry of Agriculture, Forestry and Food Security

MoE – Ministry of Energy

M&E – Monitoring and Evaluation

NPAA – National Protected Area Agency

UNDP – United Nations Development Programme

TABLE OF CONTENT

Abbreviation and Acronyms.....	01
List of Tables.....	03
List of Figures.....	04
List of Plates.....	05
Executive Summary.....	06
1. Chapter One - Introduction.....	08
2. Chapter Two - Methodology.....	11
3. Chapter Three – Findings.....	13
3.1 Household data of Respondents.....	13
3.2 Gender and Education	14
3.3 Gender and Economic Activities.....	16
3.4 Gender Division of Labour.....	17
3.5 Gender Access to Information, Education and Communication (IEC)	18
3.6 Gender and Source of Energy.....	19
3.7 Gender and Environmental Protection.....	20
3.8 Women's Access to and Ownership of Resources.....	21
3.9 Decision and Power Structure.....	23
3.10 Perceptions of the Energy Efficient Project.....	24
3.11 Gender Training.....	26
4. Chapter Three – Summary, Conclusions and Recommendations.....	28
Appendices.....	30
I. Training Manual	
II. Instruments – Focus Group	
- Interviews	
III. Focus Group Discussions	
IV. Transect Walk	
V. List of Enumerator	

List of Tables

Table I: Number of persons for your household14

Table II: Education levels of household heads15

Table III: Monthly Income of respondent.....16

Table IV: Sex role in charcoal business.17

List of Figures

Figure 1: Education of partners.....15

Figure 2: Source of energy.....19

Figure 3: Gender participation in EEPUC projects.....24

List of Plates

Plate 1: Women Group taking lunch after weeding.....22
Plate 2: Participants in Gender Training.....27

EXECUTIVE SUMMARY

In partnership with the Ministry of Energy (MoE), United Nation Development Programme (UNDP) secured funds from the Global Environment Facility (GEF) to implement “Energy Efficient Production and Utilization of Charcoal through Innovative Technologies and Private Sector Involvement in Sierra Leone” project. The overall goal 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 considers gender as critical for inclusive business in the production and utilization of improved, more efficient charcoal and clean cookstove in Sierra Leone. Therefore the services of Gender and Social Development consultant was sought to work closely with the internal UNDP Gender specialist in the conduct of gender analysis and gender training in relation to the EEPUC project.

The objective of this report is to review the project literature to identify well-established links between energy access and welfare and gender implications. We consider three major areas of intervention: (i) conduct gender analysis with stakeholders using appropriate gender analysis tools (ii) Gender analysis of the project's results and resources framework to ensure project's interventions and results promote gender equality (iii) Undertake gender analysis at the community level (iv) Provide training to staff and community on gender mainstreaming and analysis, (v) recommend gender dimension in the M&E system to support project staff and partners to monitor the progress on women's rights across the project and to promote gender equality.

The overall assessment was a combination of: Compilation of existing data sources and historical data; Extensive field studies and a survey of land used for forestry, households, industries, the agriculture sector; and Participatory rural appraisal based on local community knowledge

The main finding of this review is that biomass energy can have significant gender benefits through careful design and targeting of interventions based on an energy access and household decision-making. In all of the communities, charcoal and firewood are the fuel sources for cooking. Thus, there are very

significant potential health implications, particular for women and children, an a need for effective dissemination of improved cookstoves or other modern energy technology for cooking in rural communities, and of less polluting cooking and heating technology in Sierra Leone.

The impact of interventions designed to promote energy access depends on household decision-making, and, in particular, how women's preferences, and opportunity cost of time are reflected in those decisions. The study shows that both women and men are involved in fuelwood collection but to varying degrees, with women often doing most of the collection labor. It is recommended that the project sustain the inclusion of more female heads of households in decision-making which would more closely reflect women's preferences, welfare, and opportunity cost of time. In order to realize the full potential of the project interventions, the project design should be based on a context-specific understanding of energy scarcity and how household energy decisions are made. The project may want to consider a rigorous impact evaluations and participatory monitoring of household energy access.

1. INTRODUCTION

1.1. Background

The use of biomass continues to be the main source of fuel for cooking and heating purposes in both rural and urban communities in Sierra Leone. This over reliance on biomass as main energy source have greatly contributed to massive deforestation or loss of forest covers, increased black carbon emissions with corresponding consequences on the Sierra Leonean society such as increased number of natural disasters and a decline in the biodiversity.

Charcoal has gradually displaced firewood and is now the fuelwood of choice for the majority of urban residents. Notwithstanding its popularity, the charcoal and cookstoves sub-sector remains informal, unregulated and fragmented and plagued by inefficient production system relying on non-renewable sources supported by incoherent and often conflicting policy statements.

The strong and growing demand for charcoal fuel is an important concern of deforestation. The Ministry of Energy developed the renewable energy and energy efficiency policies, though it is yet to be popularized. The National Energy Plan and National Energy Strategy which is dated as far back as 2009, lacks the capacity to translate these plans and strategies into pragmatic and business solutions remains weak. In partnership with the Ministry of Energy (MoE), UNDP secured funds from the Global Environment Facility (GEF) to implement “Energy Efficient Production and Utilization of Charcoal through Innovative Technologies and Private Sector Involvement in Sierra Leone” project.

The project will enable the mitigation of the demand for non-renewable firewood and the access to cleaner alternative energy and renewable biomass in the country's residential, institutional and industrial sectors in the rural and peri-urban areas through the introduction of a certification and labelling scheme for new improved cookstoves and appliances.

1.2. Project Objective

The overall goal 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.

Considering the gendered division of labor in Sierra Leone, like all other African countries, women and girls are mainly responsible for the household production systems. These ascribed roles coupled with the cooking patterns and length of heating time required for each food preparation expose Sierra Leonean women and girls to smoke several hours every day. Consequently, they are the groups mainly affected by indoor air pollution hence, they suffer more severely from health problems related to the use of biomass. The project considers gender as critical for inclusive business in the production and utilization of improved, more efficient charcoal and clean cookstoves in Sierra Leone. Therefore the services of Gender and Social Development consultant was sought to work closely with the internal UNDP Gender Specialist for support in the conduct of gender analysis and gender training in relation to the EEPUC project.

1.3. Consultancy Objective

For the effective and full realization of project outcomes, a gender analysis on the available cook stoves was deemed necessary and thus the need for this assessment. Therefore, the services of Gender and Social Development consultant was sought to conduct gender analysis and gender training in relation to the EEPUC project.

1.4. Scope of Work

In compliance with the Terms of Reference, and under the direct supervision of the UNDP SL Energy, Environment and Natural Resource Management (EENRM) Programme Lead and in close collaboration with the UNDP SL Gender Specialist, the consultant was charged to work closely with government officials, project communities and the private sector on the following:

- Conduct gender analysis with stakeholders using appropriate gender analysis tools.
- Gender analysis of the project's results and resources framework to ensure project's interventions and results promote gender equality.

- Develop activity plan for the conduct of gender analysis of the project.
- Undertake gender analysis at the community level
- Provide training to staff and community on gender mainstreaming and analysis
- Coordinate with relevant staff members to ensure gender inclusion.
- Analyse the data collected and produce 3 copies of gender analysis report with quantifiable baseline and target indicators, as per GEF and UNDP guidance.
- Recommend gender dimension in the M&E system to support project staff and partners to monitor the progress on women's rights across the project.
- Based on the results of gender analysis, provide recommendations to promote gender equality.
- Share report to make it available to the project focal point, the Gender Specialist and UNDP

2. METHODOLOGY

2.1. Scope of the study

The scope of the study covers:

- The EEPUC project area: Three communities under the Mawoma Section of Port Loko District, which include, Mokolerr, Mawoma and Robana; and Moyamba Junction of ... chiefdom in Moyamba District.
- A review and analysis of existing data highlights some of the key project interventions accrued from the progress made, as of June 2015

The consultant embarked on the conduct of gender analysis in the named communities and a training on gender equality. In keeping with the overall goal of the project which is to bring economic, social and environmental benefits through the promotion of improved cook stoves to reduce fuel wood demand, improve health and reduce greenhouse emissions. The study was carried in two communities in the Moyamba District comprising five groups in Moyamba Junction and three groups in Masiaka (Robana, Molerr and Mawoma).

The main aim of the gender analysis was to ensure that women get more involved in inclusive business in the production and utilization of improved, more efficient and clean cook stoves in Sierra Leone; to identify possible areas of interventions to support gender equality during the implementation of the project under review.

2.2. Research Instruments

In keeping with the above, both quantitative and qualitative analyses were done in order to bring out the perspectives of both men and women. The research instrument used are as follows:

2.2.1. Questionnaire

A questionnaire was administered among men and women that addressed men's and women's concerns, experiences, barriers, and strengths towards renewable energy innovations; as well as to promote/ensure equal opportunities, equal representation in the project as well as address the link between renewable energy and gender issues.

The areas covered in the questionnaire include household data (age, literacy level, no. in household and income), economic activities including activities women and men are engaged in, access to information, education and communication, energy sources, environmental protection and conservation, access and ownership of resources and decision-making and power structure.

2.2.2. Focus Group Discussions

Separate Focus Group Discussions (FDG) were held for women and men in order to test their level of understanding of the issues of biomass energy and what they wanted done to improve the project. The FDG provided opportunities for women and men to discuss separately.

2.2.3. Key Individual Interview

Additionally, interviews were held with key stakeholders at institutional level. These interviews were meant to test the level of implementation of all the plans and policies in the field.

2.2.4. Transect Walk

A Transect Walk was also done to ensure the involvement of forestry officials and communities in the project.

2.2.5. Gender Training

At the end of the activity, the groups were encouraged to produce action plans that will guide their dissemination of gender equality ideas gained in the workshop.

2.3. Research Approach

Research approach for this assessment mainly focused on structured interviews and Focused Group Discussions (FGD). These interviews were based on an interview guide (See Annex 4 for Interview guidelines) consisting of four general categories of interest, ten subcategories and keywords related to these categories. The interviews were conducted in 3 communities in Mawoma section, Koya Chiefdom of the Port Loko District and 4 communities in Moyamba Junction

in the Moyamba District. Criteria for choice of communities was based on UNDP/GEF project locations in the two districts. While set questionnaires served as main tool, open ended questions were made use of to tease out more information from respondents especially as they relates to emerging issues which were previously not captured in the developed questionnaires.

Participants conducted a transect walk which formed part of the tools was to observe the status of the environment, encourage participants to make a historical timeline as they walk along and to use information generated from the walk to proffer suggestions for improvement. The main focus was on the current state of vegetation, energy sources in the community e.g. Trees, wood, charcoal burning. During the walk, it was observed that the vegetation, water sources, facilities for transportation and lighting as well as the buildings in the forestry compound.

3.0. FINDINGS

These findings are explained in tables and figures.

3.1. Household data of Respondents

Table 1: Number of persons for your household

No. of persons in household	Male	Female
Below 3	-	1
3 – 5	4	4
6 – 8	12	16
Over 8	22	41
TOTAL	100	

From Table 1 above, 100 participants (62 female and 38 male) were asked about their family size. Only 1 female respondent claimed a household of one (1) while 63% [22 males and 41 females] of respondents claimed a household size of over 8 persons. However, 91% of respondents claimed that they have over five (5) members in the household. This subscribes to the Sierra Leone 2013 Demographic and Health Survey Key Findings report which states an average of 5.9 members per household. This large household phenomenon is typical of rural communities where families of different generations live together (extended family system) as well as polygamous settings. This has implications for use of energy in the domestic setting. Therefore consideration should be given to how much energy will be needed to supply the needs of the occupants especially with the move from firewood use to charcoal and renewable energy.

3.2. Gender and Education

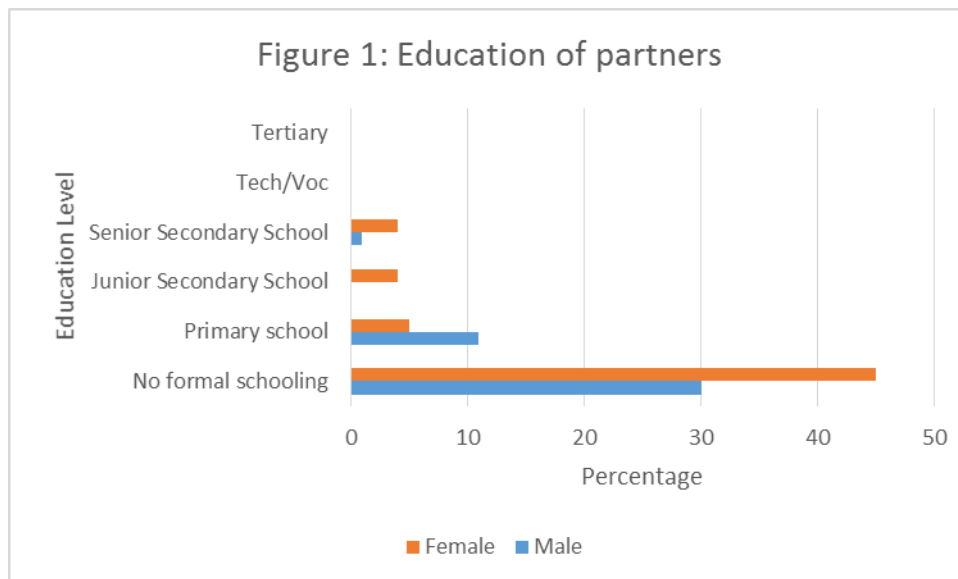
Table II shows the education level of respondents. 14% of respondents which is equal number of male and female respondents (7 each) claimed to have senior secondary education while 61% respondents (22 male and 39 female) claimed to have no formal schooling. This percentage of the population that has never attended school is much higher than those in rural areas (32.7%) according to the national census report. Of those respondents without formal education, 64% of them are female and 34% are male. More male (8) than female (7) respondents

claimed to have primary education while more female (8) than male (2) claimed to have junior secondary education.

Table II: Education levels of household heads

Education of Household Head	Male	Female
No formal schooling	22	39
Primary school	8	7
Junior Secondary School	2	8
Senior Secondary School	7	7
Technical Vocational	-	-
Tertiary	-	-
TOTAL	100	

Figure 1 depicts that even among the spouses of the respondents, more women (45%) than men (30%) had no formal schooling. Also, more men (11%) than women (5%) had primary school education.



It could be concluded from Table II and Figure 1 above that more female than their male counterparts are illiterate. This shows that there a considerable gap between male and female literacy rates in the project communities. Females constitute over 50% of country's human resource but lack of education undermines their chance to be a part of the progress and development including natural resource management in Sierra Leone. This means the pace of progress in

natural resource management is less than the required pace. Even if females do not use education to participate in project implementation, such level of illiteracy has a huge negative impact on their participation.

The reasons proffered for this high illiteracy among women is that most parents feel that it is a waste of time to send girls to school because they will get pregnant and that they will be married early. Even in cases where parent are encouraged to send their girls who get pregnant after their confinement back to school, they do not do so.

The analysis shows clearly the high illiteracy status of heads of households and that of their spouses. This subscribes to the 2015 census of high illiteracy rate in the country and highest for women. Higher literacy among women has strong implications on the traditional attitude and practice of energy and by extension the low acceptance of more gender friendly habits. It could be inferred that developing the educational status of women even if it is through the introduction of functional literacy skills will go a long way to change the perceptions, attitude and practice of women, especially with regard to their acceptance of modern renewable energy initiatives.

3.3. Gender and Economic Activities

Table III: Monthly Income of respondent

Monthly Income	Male	Female
Less than 1,000,000	44	52
1,000,000 – 2,000,000	2	2
2,000,000 – 3,000,000	-	-
3,000,000 – 4,000,000	-	-
Over 4,000,000	-	-
TOTAL	100	

Table IV above reveals that 96% of the respondents (56% female and 44% male) interview claimed that they earn less one million Leones (Le 1,000,000) per month while the remaining 4% comprising of 2% of each sex claimed that the earned

between one and two million Leones per month (Le 1,000,000 -2,000,000). None of the respondents earned above two million Leones per month.

This reveals that all of the respondent population (96%) earn an average of Le 32,258.06, an equivalent of \$4.30 (@ \$1 = Le7500) per annum. This implies that 100% of the respondents including women lived above the poverty line \$2 per day. This is corroborated by the household data which revealed that the monthly income for majority of female and male respondents is below Le1, 000,000 (One Million Leones). This is an issue that disproportionately impacts households led by women. Women are more likely to fall below the poverty line than men for a variety of reasons. However, respondents revealed that they live with no savings. This has implications for self—reliance of the clientele. So they need support to promote their socio economic status.

3.4. Gender Division of Labour

Table IV: Sex role in charcoal business.

Men	Women
Cut sticks	Carry grass to the pit to cover sticks
Dig soil	Cook food for work
Dig pit	Gather coal after burning and pack in bags
Pack the pit	Transport coal to main line
Set the oven	Sell coal
	Bring water to quench fire

Table V below shows the respective roles played by both men and women engaged in charcoal business. The table reveals that in the production of charcoal, men are more engaged in cutting sticks, digging soil, digging pits, packing the pit and setting the oven while the female counterparts carry grass to the pit to cover sticks, cook food for the work, gather coal after burning, bring water to quench fire, pack charcoal in bags, transport charcoal to main line, and sell charcoal. The entire process of charcoal production is a group effort with gender division of labour though both men and women sleep in the bush during coal burning exercise.

Respondents said that charcoal burning is an arduous task and very risky business. They stand the risk of being burnt by fire during the production process. It was also stated that charcoal-burning is only done for livelihood, but it is not too lucrative compared to the production of groundnut and other vegetables which the project integrated into the community woodlot. Participants revealed that they need help of alternative livelihood in order to stop charcoal burning. The respondents revealed that access to 3-monthly varieties of seeds or vegetables are required to make provide alternative income.

In terms of daily activities men and women agreed that they work side by side to do charcoal burning and selling, plant trees and do vegetable gardening. This division of labour is corroborated in the interviews. Additionally, women have to do their domestic work (household chores) alongside productive work. This has implications for the time burden on women as stipulated in the energy sector as one of the issues affecting women.

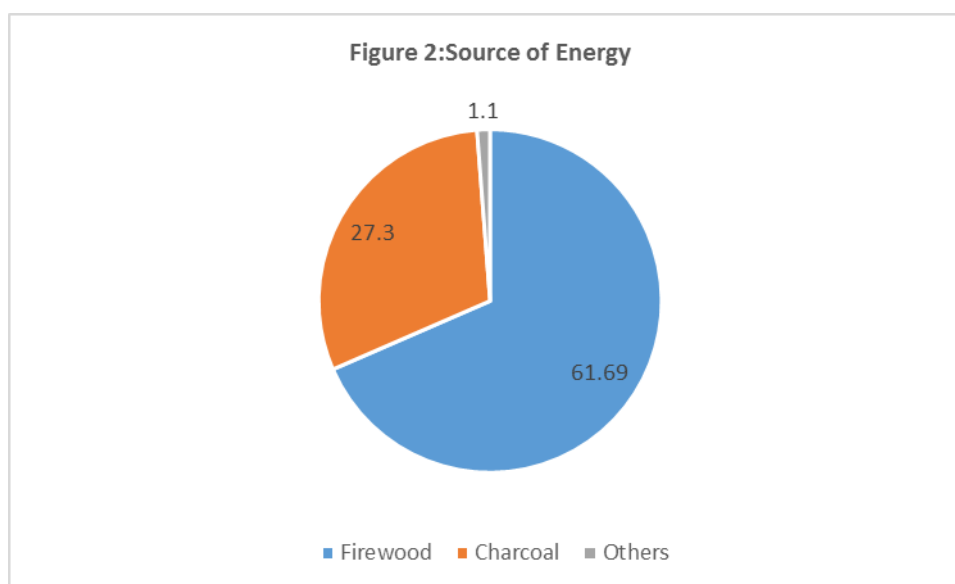
3.5. Gender Access to Information, Education and Communication (IEC)

The men and women respondents demonstrated an awareness of the need for IEC. Both male and female respondents revealed that their sources of information, without discrimination by gender, included NGOs, businessmen and local authorities including their chiefs, media including the radio, phone and social media. Both sexes were responsible for transmitting, relaying or collecting the information from the various sources. All the respondents considered Information, education and communication (IEC) as a powerful tool for people's empowerment, especially in rural communities where there is a great need for change of attitude from conservative and traditional ideas such as patriarchy to a more positive thinking such as gender equality.

When asked of the types of IEC materials they accessed, respondents stated education, cultural activities, development, business, prices of commodities, especially charcoal which price changes during the lean period of July to the end of the year when brushing of the bushes has been completed. According to the respondents, the information collected is shared among family, friends and business associates to help them plan their charcoal production and utilization.

3.6. Gender and Source of Energy

Figure 2 below is a response to the question on the source of energy. In terms of access to heat/energy sources both men and women from the focused group discussions reported that charcoal and firewood are their main sources citing the latter as the main source for cooking. It was revealed that a majority (61.69%) of the women used three-stone fire hearth while 27.30% of the women claimed to be using cookstoves.



Firewood is preferred for cooking because according to them it is of less economic value. Charcoal sales are considered to be more lucrative as it is of high demand in the urban communities so they prefer to sell charcoal rather than use it for domestic heating and cooking. Participants in the female focused groups revealed that cooking with firewood as source of energy was faster and easier for preparing more food within a given time period. Women tend to spend more time collecting fuelwood as it becomes scarcer. Improved cookstoves have the potential to cut time spent collecting fuelwood, reduce indoor air pollution, and improve the health of women and children.

However, most of the respondents, especially in the female focused groups revealed that cooking in poorly ventilated space with open flame carries great health risk of pollution, eye problem, chest-burn caused by inhalation of smoke, hypertension, heart complaint, cough, headaches, rash, and skin problem. Up to

75% and 100% of women respondents in Mawoma axis and Moyamba Junction respectively expressed interest in solar as a source of energy and solar training but considered it very expensive to access.

With regard to access to energy efficient cookstoves, two-third of respondents agreed that even though they had heard about them, they were not available in their communities. They went on to say that even if they were made available, they would not afford to buy them for use as they had other priorities like providing food for the family, school fees and medical. This has implications for the introduction of modern forms of efficient energy. It means that possibilities have to be explored for the best means of increasing their access to rural communities. It is not surprising therefore that the respondents called for support for training in the fabrication of the mud stoves which would serve a dual purpose – domestic use and commercial purpose.

3.7. Gender and Environmental Protection

Respondents have greater understanding of what natural resources are. They were able to give examples of natural resources in the communities. They also recognized the dangers of felling trees to include: high winds causing damage to houses and plants; irregular rainfall; hot weather; weakened plants; drain-energy of people working in the fields; less water sources and disappearance of fauna and flora.

From the transect walk, participants explained that many types of tree species existed within 1 kilometer radius of the communities ten years ago but now community people, especially women and children, walk long distances to access such species for medicinal value, firewood, farm, or other purposes. Furthermore, deforestation has affected animal life because they move farther away from destruction of their habitat and bush-fire which in turn results in less available sources of meat for humans. This implies that a lot of deforestation has taken place and the burden of women and children who are the traditional fuelwood collectors has increased over the years. They therefore realized that there is ardent need for environmental protection or conservation. Participants agreed that environmental protection or conservation is necessary to provide

livelihood from natural resources; serve as reservoir for medicinal value; bring income to communities; use trees as wind breaker; provide energy for cooking food, serves as source of meat and provide employment to community, among others.

In addition, participants considered tree planting as an approach to promote environmental protection and commended the EEPUC project for helping them understand and participate in tree planting as a means of environmental protection. Respondents agreed that it is important to conserve the environment for the following reasons: charcoal burning is an offshoot of deforestation which is inimical to the development of humans and the environment evident by the increase in grass cover and wild fire. Respondents believed that conservation would minimize the impact of wind, sunlight and bush fire which has caused damage to houses, low productivity among the labour force and weaken plants.

3.8. Gender Access to and Ownership of Resources

All respondents were in agreement that women face challenges in accessing land. It was revealed that men usually own land. Even when it comes to bequeathing land to the next immediate generation, if the sole beneficiary is a women, she needs to be represented by men where necessary or will be denied such rights. When it comes to benefit sharing men normally have the lion's share of the proceeds of their work even though women put in a lot of their time for desirable results. This implies that women face challenges with regards to access and ownership of resources. The men identified that women only have rights through marriage. Other factors identified militating against women's access to land and resources include women's poverty level, illiteracy, lack of money and appropriate technology e.g. tractor.

On the other hand, women cited the following challenges in their access and ownership of resources: poverty, illiteracy, social disparity and child bearing (reproductive role), unfavorable land tenure system in the rural areas, marriage, cultural barriers, tradition and lack of support from the authorities. The latter is of utmost significance as the authorities (local) are the custodians of the land and opinion leaders who implement and reinforce the laws, cultures and traditions.

The lack of support for the women from decision makers could have telling effects at the local and national levels. It could be inferred that popularization of the gender justice laws and the sexual offences law amongst the rural population would ensure adequate awareness of women's rights.

In terms of ownership of natural capital, the majority of respondents indicated that the chiefs and land owners are all men charged with the responsibility of community resource distribution do not consider men and women as equal partners in owning natural capital. This could be ascribed to the level of education as a main contributory factor.

In terms of access to resources, the women claimed that even though they work on equal basis or sometimes more than the men, the men get the lion's share of the proceed, giving their female counterparts a small percentage. They went on to say that they do not complain for fear of being ill-treated by their husbands; purported by negative customs and traditions and patriarchy. Women also said that even though they are largely responsible for financing the home in terms of providing food and other expenses, they are dependent on the opinions of their husbands and male-folks.



Plate 1: Women Group taking lunch after weeding

The women also revealed that they do not have access to land to do their planting; they have to lease land from land owners in compensation of a portion of their harvest. The men corroborated this by stating that women encounter difficulties in their field work. Quite apart from the leasing of land, they also have

to pay for labour to work the land and the money is not usually available. Even when they sometimes afford the money, at times the labourers don't turn up; at other times they go late and this hinders women's ability to make big gardens. Traditionally women are not supposed to handle cutlass or other sharp implements, hence their dependency on men for labour.

It was observed that it is becoming more difficult year after year to get sticks for construction purposes. This has placed an added burden to residents as they now go farther to access sticks or resort to cement works for their houses which is quite expensive. Land is mostly owned by men. It was disclosed that even indigenes give some amount of the harvest to landowners who are normally male, for lease of land for farming. Similar lease agreement of 40% of the produced are given in return to access natural resources including charcoal burning, palm oil production and other land use. If a new bush is to be worked the land owner is usually given Le50, 000 in cash or in kind. Land owners are requested by law to seek permission from Forestry Officials, but this is normally perverted.

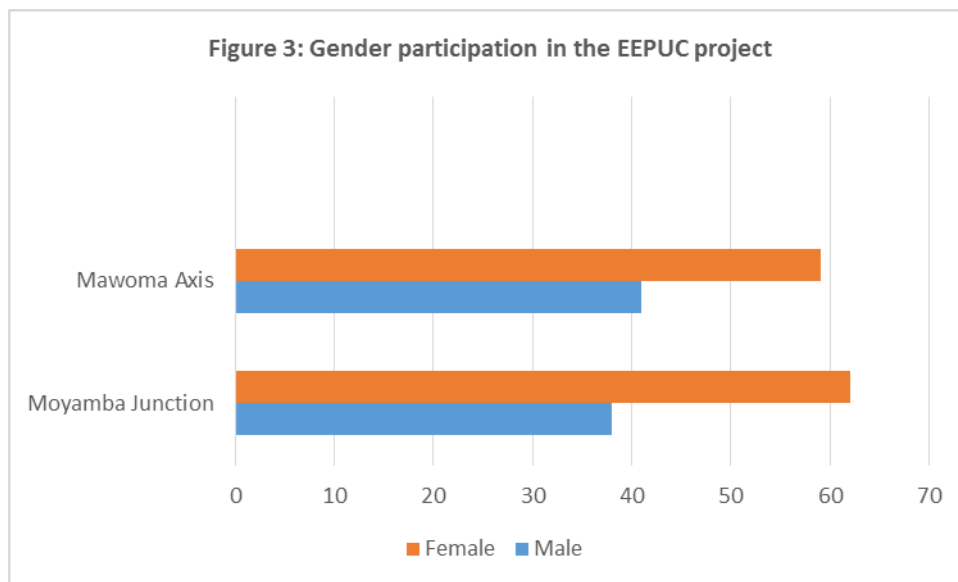
3.9. Decision and Power Structure

Women and men are said to work side by side. However, it was revealed that even though women are sometimes consulted with regard what and where to plant crops, yet they are always made to feel that the men have the final say in what they do. In fact, it was further revealed that sometimes the men make laws or taken decisions on crucial things such as the use of public facilities without the prior participation and involvement of women and would go on to punish defaulters even though they were not privy to the arrival of such decisions.

All (100%) of the women in the female focused groups stated that they have a capacity for making right decisions if given the opportunity; and that their decision making should not be confined to domestic issues because they are very instrumental in the production and utilization of energy for domestic and commercial purposes, vegetable gardening, and farming. the women think that cultural norms and practices which promotes disempowerment of women need to be revisited for more improved decision-making opportunities for women.

3.10. Perceptions of the Energy Efficient Project

The project document, prepared in 2014, had projected the inclusion and participation of women at all levels. All of the respondents recognized the value the project holds for the empowerment of the women alongside environmental protection of their communities. Given that women and men work side by side this project and majority of the people in the project area are illiterate, it helped the men to understand the importance of women's involvement in development activities and in decision-making.



On the whole, participants think that the project is development oriented. Respondents were of the opinion that the project was implemented in a gender-sensitive manner as it catered for more women. Respondents disclosed that project participants learnt from the project that women should not be marginalized and should be given more access and equal rights and opportunities to participate. So what is needed is sustained project activities to enhance women's livelihoods, promote gender equality, develop their literacy and technological skills for sourcing finance and other resources to move them out of poverty and promote safer environments in the communities.

Though men were conscious of the fact that both women and men should enjoy equal rights and benefits, yet the culture and traditions still pose barriers for social integration which posed challenge to project implementation. The women supported this view, but suggested that cooperative farming and cooperative societies should be established and appropriate technology provided, especially

for the women, to empower them. Officials from public institutions suggested the popularization, promotion and enforcement of national gender laws and statutes for social integrations through awareness raising in rural communities so that negative customs and traditions can be abolished.

The project facilitated development and approval by cabinet of the Renewable Energy and Energy Efficiency policies. These policies have great provision for women in terms of access to energy but the policies have not been popularized for public acceptance. KII revealed that efforts were being made to promote gender equality from the work place to the field interventions. In terms of energy and the promotion of sustainable forest management, reference was made to the Act that called for charcoal production permit to be obtained from forestry officials. Revenue from such transport permit could be used towards reforestation. But enforcement of such policy was highlighted as a constraint. However community partnership is being secured to conserve protected areas.

The project established 8 hectares of climate smart woodlot each in Mawoma, Robana and Makollerr in the Wamoma section of Kowa chiefdom in Port Loko district and 20 hectares in Moyamba Junction of Fakunya chiefdom in Moyamba District. In view of the above, both men and women pledged their commitment to work hard for the success of the project. The women were interested in promoting afforestation through the introduction of early maturing trees such as acacia of charcoal production while the men were interested in hard trees for timber production.

Also, gender mainstreaming is being applied through capacity-building for women to protect the land through vegetable production in an agroforestry. The interviews clearly revealed the efforts made in many institutions working in the environment such as National Protected Area Authority (NPAA) and Environmental Protection Agency (EPA) to motivate women led groups to participate in activities that will promote conservation, and apply other livelihood forms other than uncertified charcoal burning. Irregular joint monitoring missions by the Ministry of Agriculture, Forestry and Food Security (MAFFS), Ministry of Energy (MoE), NPAA and UNDP.

Respondents have high expectation of the project. Respondents iterated that for active participation in the woodlot, in addition to preferred three-month variety vegetable seeds, participants should have access to food for work, seed rice, microfinance, medical facilities, education (schools, adult literacy), good water supply, more efficient credit facilities, social amenities such as football gear to farmers, improved farming methods, and rehabilitation of roads linking their communities to the highway so that they can carry their crops in good time to the market before they get spoilt.

3.11. Gender Training

The gender training aspect of the consultancy aimed to stimulate critical thinking around gender, identity, and influence project interventions. It focused on two insights from gender and energy training. First, an individual's identities are always multiple and interconnected, so that one cannot talk about gender in isolation; and second, all identities are gendered.

The training looked at the power dynamics between different identities and sexes and how privileges given to a particular sex makes others vulnerable. The aim of this transformative gender and diversity training was to acknowledge these power dynamics, to demystify them, and to find strategies that will promote equality for all involved. Effort was made to forge a link between gender and biomass energy through the gender training activity organized in the project areas.

The gender training was timely and worthwhile. Participants revealed they had never had such a training before and looked forward to follow-up interventions from the workshop. Participants learnt gender stereotypes. In fact, participants drew up an action plan to disseminate gender equality ideas through meetings, advocacy, lobbying and awareness raising.



Plate 2: Participants in Gender Training

One key expectation of the participants was to sustain activity to promote gender equality, enhance women's livelihoods, develop their literacy and technological skills coupled with support for sourcing finance and other resources to move them out of poverty and promote safer environments in the communities.

4. SUMMARY, CONCLUSION AND RECOMMENDATIONS

4.1. Summary

Throughout the analysis, efforts were made to bring out the different characteristics, perspectives and experiences of men and women. The gender analysis was punctuated with household data on sex, literacy level, household size, income level the literacy level of both men and women in the project area. Income level was low and the majority of illiterates were women. This points to the low socio-economic status of the population.

The same issues articulated in the gender analysis recurred throughout training. Women's heavy workload emanates when women tried to combine their domestic duties with their economic activities and this could impact the self-development initiatives of women.

Most of the community people are poor. Because rural communities tend to rely on biomass supplies for their daily energy needs, any climate change-induced stress on adjacent ecosystems is bound to cause biomass (and hence energy) scarcities. Energy-related challenges of the poor are likely to get worse as a result of climate change with women and children adversely affected.

Even though men and women team up for economic activities, women have specific concerns which border on gender inequality in terms of access to land, resources and decision-making.

Women in particular demonstrated little knowledge about the Gender Justice Laws and the Sexual Offences Law. This have implications for Issues of teenage pregnancy and early marriage.

It can be observed that gender inequality in access to land and property is substantial due to discriminatory inheritance practices, unequal access to land markets and gender-biased land reform. Some progress has been made in legislative reform, but implementation is hindered by sociocultural norms and women's lack of knowledge of their entitlements.

The empowerment of women through the provision of vegetable production that can bring them income was a key strategy in the sustainable development of project. This small-scale income generation provided another source of income for households. Importantly, it empowers women in the communities that has traditionally diminished their access to income. They now increasingly contribute to, and often assume sole responsibility for, the welfare of their families.

In spite of the high illiteracy level among them, participants were able to articulate issues about conservation and the negative impact of deforestation and the health hazards of firewood collection and charcoal production pose. However, they are yet to experience the benefits of efficient cookstoves. Even though women were willing to use the efficient cookstoves they raised concerns over the affordability considering the market price as they had other priorities. They therefore looked forward for the training in efficient cookstove production, solar energy installations and Afrigas promotion and Sales.

The importance of the gender training for active participation in biomass energy interventions is that it would serve as motivation for women and girls to be more involved in project activities to enable them benefit from the various participation and inclusion.

4.2. Conclusions

Low female literacy rate means an overall sluggish growth of community, as it impacts every arena of the development. If females are illiterate, then this has a direct and negative impact on these initiatives as women interact more with the environment for production and consumption activities.

When a female is not educated, the entire family has to bear the consequences of her illiteracy. Illiterate women could face more hardships in life than literate ones. This hampers the family as well as the nation's progress as a whole. Lack of education means lack of awareness. Illiterate women are not aware of their rights to access land. They take the back stage in decision-making by the local

authorities on initiatives for their welfare. This keeps illiterate women struggling hard and bearing harshness of life.

Balanced and equal participation of men and women in formulating and implementing projects is essential. Therefore, investing in women for roles in environmental management could not only be beneficial, but profitable.

Since women are more interactive with sourcing energy for domestic purposes, strengthening women's capacity through training and vegetable production to reduce and manage deforestation is not a secondary or divisive concern, but an essential step in building more resilient communities.

Women play a crucial role in the widespread adoption and use of clean household cooking solutions because of their central responsibility for managing household energy and cooking. As consumers and users of cookstoves, women are not just victims but a critical component of the project's ability to scale up. Women must be fully integrated into the process of designing products and solutions because without their opinions and input, products will not meet their needs and will not be used.

The EEPUC project has instituted climate-smart forest of common lands in Mawoma axis and forest lands in Moyamba Junction in addition to promoting tree based farming. If the full technical potential of the project is assumed, these activities would generate significant carbon pools that would contribute to mitigating GHG emissions from the EEPUC project.

4.3. Recommendations

Based on the conclusions, specifically the following were recommended:

- Providing alternative livelihoods such improved three-month agricultural seed varieties will bring in more income and take rural community away from deforesting the land.
- Promote the empowerment of women in particular through training in business skills, new energy technology, adult literacy, solar installations and mud stove production.

- Women's equal access to and control over economic and financial resources is critical for the achievement of gender equality and empowerment of women and for equitable and sustainable economic growth and development. Ensuring women's economic empowerment and access to and control over resources requires an integrated approach to growth and development, focused scheme on gender-responsive income generation promotion.
- Popularization of the relevant policies and acts that promote gender equity will contribute to reducing the burden of women and alleviate poverty.
- The project interventions to be sustained, the project design should be based on a context-specific understanding of energy scarcity and how household energy decisions are made.
- The project may want to consider a rigorous impact evaluations and participatory monitoring of household energy access.

APPENDICES

QUESTIONNAIRE FOR COMMUNITIES IN PROJECT AREA

Questionnaire No.

Introductory Statement: Good morning/Good Afternoon/Good Evening

My name is.....

I am conducting a Gender Analysis for the Energy Efficient and Utilisation of Charcoal through Innovative Technologies and Private Sector Involvement Project in Sierra Leone on behalf of the UNDP and the Ministry of Energy.

We would be grateful for your assistance in our research. Any information you provide will be treated in strict confidence.

A. Database Control

No.	Variable/Question	Response	Code
A1	District		
A2	Community		
A3	Address		
A4	Name of Respondent		
A5	Age of Respondent		
A6	Sex of Respondent		
A7	Enumerator	Name: Date:	

B. Household Data

Please DO NOT read options

Enter appropriate code(s) in space(s) provided

No.	Variable/Question	Response	Code
B1	How many persons are in your household?	Below 3 3 – 5 6 – 8 Over 8	
B2	Formal educational level attained by household data	No formal schooling Primary school Junior Secondary Sch Senior Secondary Sch Tech/Voc Tertiary	
B3	Formal educational level attained by wife	No formal schooling Primary school Junior Secondary Sch Senior Secondary Sch Tech/Voc Tertiary	
B4	Estimated MONTHLY income of household	Less than Le1,000,000 Le1,000,000-Le2,000,000	

		Le2,000,000-Le3,000,000	
		Le3,000,000-Le4,000,000	
		Over Le4,000,000	

A. Economic activities

1. Do women and men get equal pay when they do the same work?
Yes No If no, why?
2. Do you have micro-finance institutions in your area? Yes No
(b) If yes, can women access the credit on their own?
Yes No
(c) If yes, what are the conditions for accessing the credit?
Yes No
3. Is charcoal burning and selling part of the business women and men are engaged in? Yes No
(a) What part of this is done by men?
(b) What part of this is done by women?
4. How do you reach the market? Customers?
(a) Who has more access to markets? Men or women?
(b) Are there any specific obstacles to women's activities?
(c) What are some of the reasons for this discrimination?

B. Access to Information, Education and Communication

1. Where do you get information about development activities?
2. Who brings the information? Men or women?
3. What type of information do you receive?
4. How do you use the information you get?

C. Energy Sources

How do you get heat/energy?

Charcoal Kerosene Electricity Firewood Sawdust

List the advantages of the kind of energy you use for cooking?

Cooks faster Uses less fuel wood Cooks more food
Saves time Save money Produces less smoke

State some disadvantages of the kind of energy you use for cooking

D. Environmental Protection and Conservation

1. What do you understand by the term 'natural resources'? Give some examples of natural resources.
2. Do you think natural resources are important and that we should conserve them?
3. Why?
4. Who are the people responsible for conserving the natural resources in your community?
Men Women Boys Girls
5. How do you use the natural resources in your area for your daily activities?
6. Are there any rules in place for managing the resources?

7. What is your view of the Energy Efficient Production and Utilization of Charcoal through Innovative Technologies and Private Sector Involvement Project in Sierra Leone?
 8. What should be done to implement the project in a gender sensitive way?
 9. What would be your contribution to the success of the project?
 10. What support will you need for your active participation in the project?
 11. Have you been involved in a similar project before?
 12. What was the level of success of that project?
- E. Access and Ownership of Resources
1. Who owns natural capital in your community?
 2. What are the factors affecting access and control of resources?
 - A. Age
 - B. gender
 - C. status of organisation
 - D. education
 - E. network or the support from an influential person
 3. State whether there is equality between men and women in the following list?
 - A. Access top time
 - B. Knowledge
 - C. Finance
 - D. material and non-material resources
 4. Who decides about resources and activity?
 - Men
 - Women
 - Both
 5. What challenges do women encounter in the area of access and ownership of resources?
- F. Decision Making and Power Structure
1. Who is responsible for making decisions in your community?
 2. Are women actively involved in making decisions or is it primarily the man's role?
 3. Do you think women have the capacity of making right decisions?
 4. Do you think women's decision making should be limited to specific decisions? E.g. how to organize the home?
 5. Are there any cultural norms in your community that discriminate against women?

INTERVIEWING

INSTRUMENT FOR INTERVIEWING KEY STAKEHOLDERS

1. Name of Organisation
2. Main activity engaged in
3. Date of operations
4. What does your organisation do to ensure
 - a. Gender mainstreaming in the organisation
 - b. Gender mainstreaming in your projects
 - c. Do you have a gender policy?
 - d. Do you have officers who are in charge of planning and implementing projects for gender?
5. Describe the groups you work with
6. What activities do you undertake with them?
7. Are there some specifically for women? For me?
8. Do you have any specific programmes related to renewable modern energy?
9. If Yes, briefly describe them
10. Do you have any gender programmes?
11. What will be your suggestions for popularizing the fuel efficient cook stoves project? For general renewable modern energy?
12. Do you offer any support to woman in the rural areas? If Yes, what type?
13. What are your perceptions of women/s/gender access to renewable energy?

LIST OF PARTICIPANTS

Focus Group Discussion (Makolerr – Masiaka)

1. Osman Sesay
2. Abdul R. Kanu
3. Ibrahim T. Kamara
4. Santigie Bangura
5. Shaka Sesay
6. Ibrahim Gbla
7. Morlai O. Conteh
8. Abass Turay
9. Osman Kanu
10. Mohamed Turay
11. Alex Kanu
12. Foday Conteh
13. Sorie Turay
14. Mohamed Turay
15. Sullay Koroma
16. Kadiatu Koroma
17. Kadiatu Sesay
18. Rugiatu Kargbo
19. Hawa Kamara
20. Hawa Kanu
21. Hawa Fornah
22. Kadiatu Sesay
23. Ramatu Kabia
24. Mama Kabia
25. Fatmata Sesay
26. Kadiatu Bangura
27. Yeabu Fullah
28. Sampa Bangura
29. Zainab Kamara
30. Musu Conteh

LIST OF PARTICIPANTS

Focus Group Discussion (Moyamba)

1. Ibrahim Mohamed
2. Abdul Kamara
3. Tommy Alieu
4. Kallon T. Bockarie
5. Aruna Saw
6. Saidu Bangura
7. Abass Bangura
8. Moses Kamadu
9. Kinnie Lamie
10. Mohamed George
11. Lansana A. George
12. Hassan Gala
13. Hassan Show
14. Sandy Sesay
15. Sylvanus Henry K. Laggah
16. Jestic M. Kamara
17. Fatmata Gbla
18. Alice Koroma
19. Abie Tucker
20. Aminata Kanu
21. Yata Ponney
22. Regena Gbla
23. Jeney Coker
24. Salamatu Sesay
25. Martha Nicol
26. Fatmata Kamanda
27. Mama Nicol
28. Hawa Bandu
29. Kadiatu Bangura
30. Isata Sowu

CHECKLIST FOR FOCUS GROUP DISCUSSION

The following questions will guide the Focus Group Discussion and interviews:

- A. What is the literacy level among people in this village?
- B. Are there many more literate men than women. If so, why?
- C. Comment on the division of labour among females, males, young and old in your village (daily activities between men and women, time allocation in various activities, factors behind the existing division of labour)
- D. Who are responsible for making decisions about who does what?
- E. What are the basic tools/equipment you use for the various activities? E.g. Cooking
- F. - What are the common economic activities in your village?
- What are the common economic activities, for men and women?
- Do women have the same right of access with men to means of production?
- G. How do you get heat/energy?
- | | | | |
|-------------|--------------------------|----------|--------------------------|
| Charcoal | <input type="checkbox"/> | Firewood | <input type="checkbox"/> |
| Kerosene | <input type="checkbox"/> | Saw Dust | <input type="checkbox"/> |
| Electricity | <input type="checkbox"/> | | |
- Have you ever heard of energy saving stoves? Yes No
- If Yes, do you have energy saving stove? Yes No
- If you do not have are they available in your village?
- Where do you get the energy saving stove?
- H. Why do you think it is important to conserve our environments/ forests?
- I. Do you have any of the following
- a. Resource
 - b. Land for agriculture
 - c. Forest farm
- J. Is there any organisation working with you on biodiversity issues in your area?
- K. What is the cost of the following in your area?

- a. Bunch of fire wood
- b. Sack of charcoal

**LIST OF ENUMERATORS FOR GENDER ANALYSIS – MASIKA AND MOYAMBA
JUNCTION**

1. Osman Thomas Kamara
2. Fatmata A. Sesay
3. Lovetta M. Conteh
4. Ibrahim Bangura
5. Mohamed G. Bangura
6. Hawanatu T. Kamara