



Ministry of Energy – Republic of Sierra Leone



SDG7 Cleaner Cooking Energy Compact of Sierra Leone

A next Decade Action Agenda to advance SDG7 on sustainable energy for all, in line with the goals of the Paris Agreement on Climate Change

SECTION 1: AMBITION

1.1. Ambitions to achieve SDG7 by 2030. [Please select all that apply, and make sure to state the baseline of each target]

(Member States targets could be based on their NDCs, energy policies, national five-year plans etc. targets for companies/organizations could be based on their corporate strategy)

<input checked="" type="checkbox"/> 7.1. By 2030, ensure universal access to affordable, reliable and modern energy services.	<p>Target(s):</p> <ol style="list-style-type: none"> Sierra Leone will enhance its activities in the cooking sector with the main target to increase the use of LPG to an adoption rate of 25% as an alternative to wood fuel Sierra Leone aims for all households to have access to energy-saving cooking solutions. <p>Time frame: by 2030</p> <p>Context for the ambition(s):</p> <p>Energy consumption of the 7.72 million people in Sierra Leone is dominated by biomass, which accounts for over 80% of energy used. The largest source of biomass energy is wood fuel followed by charcoal. Imported Petroleum Products are the next largest source of energy at approximately 13%. On-grid and off-grid electricity accounts for the remainder of the power supplied to the country's citizens. Most of the energy production and use in Sierra Leone is concentrated in the household sub-sector, where biomass, in the form of fuelwood and charcoal is used for cooking and kerosene is used for lighting¹.</p> <p>LPG is the second most used cooking fuel in the West African region after wood fuel. Countries in the region where LPG adoption rate is high (above 30%) have all had to put in place a subsidy schemes to bolster initial uptake but whether Sierra Leone is ready to adopt the same approach is open to discussion. It is clear however that LPG must be made affordable to increase to 25% the number of people using it by 2030 as set out in the SE4All Country Agenda. It is also clear that most potential consumers are not yet convinced of the safety of the product thus making awareness campaigns a necessity.</p> <p>According to the results of the latest Sierra Leone Integrated Household Survey (SLIHS) firewood was the main cooking fuel of 72% of the population in 2018. 27.7% of the households used charcoal. According to recent estimates only 1% of the households use mainly Liquefied Petroleum Gas (LPG). Thus, 99% of the population depend on biomass for cooking.</p> <p>The percentage of households using firewood decreased from 78.7 percent in 2011 to 72.0 percent in 2018 and that of charcoal increased from 20.2 percent in 2011 to 27.7 percent in 2018. Firewood remains the main source of cooking fuel in rural areas, although the percentage declined from 97.2 percent in 2011 to 95.2 percent in 2018. In contrast, only 32.8 percent in urban areas used firewood, a decline from 50.1 percent in 2011. In urban areas, charcoal was the most common energy source for cooking, with an increase from 48.8 percent in 2011 to 66.7 percent in 2018. For rural regions, firewood is the predominant source of cooking fuel.</p> <p>In rural areas, inefficient fuelwood cooking methods are widespread, the most common of which is an open "3-stone-fire". In urban centers, the 3-stone-fires are gradually replaced by clay stoves and metal coal pots in parallel. But it is noteworthy that 3-stone-fires still play an important role, even in urban centers, because the preparation of food with a longer preparation time (i.e. for festivities), is normally done with a 3-stone-fire.</p>
<input checked="" type="checkbox"/> 7.2. By 2030, increase substantially the share of renewable energy in the global energy mix.	<p>Target(s):</p> <ol style="list-style-type: none"> Sierra Leone aims at a sustainable production of wood fuels

¹ Ministry of Energy and Water Resources (MEWR). *National Energy Policy and Strategic Plan Energy for Poverty Alleviation and Socio-Economic Development Part 1*", Freetown: MEWR, 2009.

	<p>b) Organic waste such as municipal and agricultural waste to energy conversion has become a new source for providing domestic cooking energy fuel.</p> <p>Time frame: by 2030</p> <p>Context for the ambition(s):</p> <p>The consumption of firewood and charcoal for cooking in Sierra Leone is unsustainable. The demand for biomass for cooking energy already exceeds the regrowth rate of the forest cover. The problem will further be aggravated by the projected population growth to an estimated population of over 10 million by 2030. This will accelerate deforestation and deplete the nation's 2.726 million hectares of forest and woodland reserves in the coming decades. Deforestation is directly contributing to water shortage, loss of soil fertility, soil erosion and landslides as seen by the August 2017 mudslide in Freetown, loss of the remaining wildlife and the general biodiversity, dried-up rivers affecting hydropower supply, and river level rise resulting to periodic flooding during the raining season. Most of these impacts are already evident in different ecological zones in the country, amounting to huge economic losses of the national capital asset including loss of the productive potential of the country.</p> <p>With low electrification rate, no oil production and a poor economy, Sierra Leonean households will continue using wood fuel as their primary cooking fuel for the foreseeable future. Despite its harmful health effects, wood energy is a renewable fuel if harvested sustainably. The pressure on wood resources can further be decreased by the use of alternative biofuels made out of waste.</p>	
<p><input checked="" type="checkbox"/> 7.3. By 2030, double the global rate of improvement in energy efficiency.</p>	<p>Target(s):</p> <p>a) Wood fuel will be consumed efficiently by increasing the efficiency of most biomass stoves to a minimum of 20% (Tier 2 stove efficiency)</p> <p>b) The energy efficiency of the production of charcoal will increase by 40%.</p> <p>Time frame: by 2030</p> <p>Context for the ambition(s):</p> <p>Wood fuel consumption can be reduced by increasing the availability and adoption of improved cookstoves for households and businesses. Efficient consumption will support sustainable production by reducing demand. Sustainability will also be achieved by promoting improved carbonization processes for charcoal.</p> <p>It is estimated that 7,984 tons/day of firewood and 457 tons/day of charcoal are consumed in the country. This corresponds to an annual production of 2,914,160 tons of firewood and 166,809 tons of charcoal. Carbonization yields in Sierra Leone have been estimated at 18%. Hence, to produce 1 ton of charcoal, on average 5.17 tons of wood are currently needed resulting in a total amount of 863.017 tons of wood annually consumed representing 533,135 hectares of woodland or 17.5% of the forest cover in Sierra Leone. A strong reduction of the fraction of non-renewable energies can only be achieved if charcoal is produced and consumed in a significantly more efficient way.</p>	
<p><input checked="" type="checkbox"/> 7.a. By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology.</p>	<p>Target(s):</p> <p>a) Cooperation between the Mano River Union (MRU) states as well as with the international community will be intensified in the field of bioenergy</p> <p>b) Conduct joint, integrated studies in the field of renewables and bioenergy</p> <p>Time frame: by 2030</p> <p>Context for the ambition(s):</p> <p>The current lack of access to reliable and affordable modern energy is slowing down economic growth and seriously affecting service delivery in many development sectors, including health, education, and food production/processing. With significant population growth and massive urbanization, governments in the MRU region are under tremendous pressure to achieve economic growth, provide jobs and social services and at the same time meet climate change targets. Consequently, decisions on energy sources to respond to all those needs will determine the economic transformation and prosperity in the region, with serious implications on climate change, which is already disproportionately impacting the region although it accounts for less than 4% of GHG emissions, and just 2% of energy-related global CO₂ missions. It is important to stress that a sub-regional approach and cooperation among the MRU countries is critical for achieving energy access targets as well as sustainable forest management because (a) within the Mano River Union forests and rivers are trans-boundary, and (b) illegal timber (and fuel) trade is occurring between some of the countries. Also, with 3 of the 4 countries (Guinean, Liberia and Sierra Leone) so dependent on firewood and charcoal (and kerosene) a set of harmonized policies will be needed to avoid leakages (i.e., charcoal and firewood sold illegally across borders if one country has tougher laws than others). Such illegal trade between Sierra Leone and Guinea with regards to Petrol, Kerosene, Diesel and LPG can be observed.</p> <p>Against this background the Mano River Union (MRU) Secretariat in cooperation with Energy Nexus Network (TENN) decided to work with the MRU Member States (Côte d'Ivoire, Guinea, Liberia, and Sierra Leone) with support from plethora of partners to develop the renewable energy sector and address clean cooking challenges. The initiative culminated into the first "High-level Multi-Stakeholder Renewable Energy and Clean Cooking Conference for the Mano River Union" held in Freetown-Sierra Leone on 18th and 19th November 2019. On 7th April 2021 a "Stakeholders' Dialogue</p>	

	<p>on Renewable Energy on Clean Cooking Solutions for the MRU countries was convened to demonstrate strong leadership to improve the renewable energy sector and accelerate action for joint measures on renewable energy development including clean cooking solutions in the Mano River Union subregion. The Meeting was coordinated by the Institute of Leadership, Energy, Environment, and Management (ILEM) with support from the International Renewable Energy Agency (IRENA).</p>
<p><input type="checkbox"/> 7.b. By 2030, expand infrastructure and upgrade technology for supplying modern and sustainable energy services for all in developing countries, in particular least developed countries, small island developing States, and land-locked developing countries, in accordance with their respective programs of support.</p>	<p>Target(s): Time frame: Context for the ambition(s):</p>

1.2. Other ambitions in support of SDG7 by 2030 and net-zero emissions by 2050. [Please describe below e.g., coal phase out or reforming fossil fuel subsidies etc.]

Target(s):

- 🔊 Study the feasibility to impose licences for charcoal production and tax on charcoal sale and enforce the 1988 forestry Act on deforestation;
- 🔊 Afforest/re-grow 40% of the total forestry being depleted under the current practice of deforestation;
- 🔊 Engage and create a civil society organization of at least 50 organizations and individuals advocating on clean cooking options and the danger of current cooking practices;
- 🔊 Promote nation-wide awareness raising through advocacy (jingles/radio/TV/posters, bill boards, mobile text messaging, town hall meetings etc.) on the environmental and health effect of deforestation and dirty cooking;
- 🔊 Ban the illegal and uncontrolled logging of trees for biomass (firewood and charcoal) in and around urban areas.

Time frame: 2030

Context for the ambition(s):

As Sierra Leone loses 0.53 million hectares of its forest cover annually due to urbanization, mining, agriculture, timber logging, and charcoal production, only 38% of its pristine forest reserve remains as source of household energy to 99.7% of the population. Deforestation is a main cause of flash flooding and mudslides, as seen in the 2017 mudslide which left over 3,000 homeless and more than 1,500 deaths in Freetown. With regards to health aspects, the World Health Organization estimates that the exposure to pollution from open burning of biomass was responsible for 10,800 premature deaths in Sierra Leone in 2004. Therefore, there is an urgent need to achieve SDG 7 and it recommended targets for access to modern cooking technologies for all.

SECTION 2: ACTIONS TO ACHIEVE THE AMBITION	
2.1. Please add at least one key action for each of the elaborated ambition(s) from section 1. [Please add rows as needed].	
<p><i>Description of actions for ambition 7.1</i></p> <ol style="list-style-type: none"> 1. Creation of a national bioenergy steering committee; 2. Elaboration of a national strategy to achieve access to affordable, sustainable, modern cooking energy for all with details about the different actions; 3. Creation of favorable import duty and other fiscal incentives for the promotion of energy-saving cooking solutions; 4. Promotion of financing options such as climate financing, microfinance, low-interest loans, bank guarantees, market premiums, Paygo, and Result Based Financing for consumers and private enterprises in the bioenergy and clean cooking sectors, supporting particularly the development of women and youth-led businesses; 5. Promotion of energy-saving and clean cooking technologies in institutions (such as schools, hospitals and prisons) and for commercial use; 6. Implementation of awareness raising, information and education campaigns for energy-saving cooking in rural communities (including schools, markets, local councils) and urban areas (including universities, markets and targeted Ministries); 	<p><i>Start and end date</i></p> <ul style="list-style-type: none"> ● 2021 – 2022 ● 2022 ● 2022 ● 2021-2030 ● 2021-2030 ● 2021-2030 ● 2022

16. August 2021

7. introducing bioenergy technologies in the Technical and Vocational Education and Training (TVET) curriculum.		
<p><i>Description of actions for ambition 7.2</i></p> <ol style="list-style-type: none"> 1. Establishing a comprehensive inventory and mapping of the country's forest and bioenergy resources such as forest/tree biomass, wood chips/sawdust, municipal waste, bioenergy crops, agricultural and food processing waste (volumes, location, uses, active players); 2. Conducting studies on imbalances between biomass supply and consumption including identification of measures to make biomass production and consumption sustainable; 3. Promotion of on-farm growing of energy trees and crops, and bioenergy plantations; 4. Promotion of the production of briquettes and pellets and stove technologies suitable for them through feasibility studies, technical assistants, financial incentives and pilot plants; 5. Carrying out of capacity development measures in sustainable forest management, waste to energy conversion etc.. 	<p><i>Start and end date</i></p> <ul style="list-style-type: none"> ● 2022 ● 2022/2023 ● 2021-2030 ● 2021-2030 ● 2021-2030 	
<p><i>Description of actions for ambition 7.3</i></p> <ol style="list-style-type: none"> 1. Development and adoption of national standards for energy-efficient and clean cooking technologies; 2. Promotion of technical innovations regarding energy-efficiency of stoves through capacity development and research; 3. Capacity development measures in efficient carbonization technologies. 	<p><i>Start and end date</i></p> <ul style="list-style-type: none"> ● 2022 ● 2021-2030 ● 2021-2030 	
<p><i>Description of actions for ambition 7.4</i></p> <ol style="list-style-type: none"> 1. Carry out regular meetings between organizations, institutions and businesses (including women and youth-led) from Mano River States, which are relevant for the bioenergy sector; 2. Promotion of partnerships between SL universities, governmental agencies, CCASL and corresponding international institutions in the field of bioenergy. 	<p><i>Start and end date</i></p> <ul style="list-style-type: none"> ● 2021-2030 ● 2021-2030 	

SECTION 3: OUTCOMES

3.1. Please add at least one measurable and time-based outcome for **each** of the actions from section 2. *[Please add rows as needed].*

<p><i>Outcomes of actions for ambition 7.1</i></p> <p>Ad 1. The national bioenergy steering committee is fully operational and is coordinating the work in the cooking sector;</p> <p>Ad 2. A national strategy for the cooking energy sector is to achieve access to affordable, sustainable, modern cooking energy for all and 25% of LPG adoption with details about the different actions;</p> <p>Ad 3, 4 and 6. Average annual growth rate of imports, production and sales of energy-saving cooking solutions is at least 10%;</p> <p>Ad 5. 100% of relevant public institutions and enterprises use energy-saving and clean cooking technologies;</p> <p>Ad 7. Bioenergy technologies are part of the Technical and Vocational Education and Training (TVET).</p>	<p><i>Date</i></p> <ul style="list-style-type: none"> ● 2022 ● Draft 2022, final version 2023 ● 2022 – 2030 ● 2030 ● 2023
<p><i>Outcomes of actions for ambition 7.2</i></p> <p>Ad 1. The forest and bioenergy resources of the country are known in detail allowing a sustainable resource management;</p> <p>Ad 2. Weaknesses, inefficiencies and challenges in biomass supply and consumption are identified and measures to overcome them are initiated;</p> <p>Ad 3. At least 10,000,000 energy trees are grown as a result of promotion campaigns;</p> <p>Ad 4. At least 5,000 tons of briquettes and pellets per year are produced and appropriate stoves for briquettes and pellets are used;</p> <p>Ad 5. At least 5000 technicians have been trained in sustainable forest management, waste to energy conversation.</p>	<p><i>Date</i></p> <ul style="list-style-type: none"> ● 2022 ● 2022 ● 2022 - 2030 ● 2030 ● 2030
<p><i>Outcomes of actions for ambition 7.3</i></p> <p>Ad 1. National standards for cooking technologies are in force;</p> <p>Ad 2. The energy-efficiency of the majority of sold biomass stoves is at least >20%, at least ¼ of the stoves > 30%;</p> <p>Ad 3. At least 1000 charcoal producers are trained in energy-efficient carbonization technologies.</p>	<p><i>Date</i></p> <ul style="list-style-type: none"> ● Draft 2022, final version 2023 ● 2030 ● 2030
<p><i>Outcomes of actions for ambition 7.4</i></p>	<p><i>Date</i></p>

16. August 2021

<p>Ad 1. A close cooperation between organizations, institutions and businesses from Mano River States relevant for bioenergy is established; Ad 2. At least 5 partnerships between SL universities, governmental agencies, CCASL and corresponding international institutions in the field of bioenergy are established.</p>	<ul style="list-style-type: none"> ● 2022 – 2030 ● 2030
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------

SECTION 4: REQUIRED RESOURCES AND SUPPORT

4.1. Please specify required finance and investments for each of the actions in section 2.

Actions for ambition 7.1

	<i>Budget (in USD)</i>
Creation of a national bioenergy steering committee	10.000
Elaboration of a national strategy to achieve access to affordable, sustainable, modern cooking energy	250.000
Creation of favorable import duty and other fiscal incentives for the promotion of energy-saving cooking solutions	10.000
Promotion of financing options for consumers and private enterprises in the bioenergy and clean cooking sectors	30.000.000
Promotion of energy-saving and clean cooking technologies in institutions and for productive use	3.000.000
Implementation of awareness raising, information and education campaigns for energy-saving cooking	100.000
Introducing bioenergy technologies in the Technical and Vocational Education and Training (TVET) curriculum	50.000
Sub total	33.420.000

Actions for ambition 7.2

	<i>Budget (in USD)</i>
Establishing a comprehensive inventory and mapping of the country's forest and bioenergy resources	250.000
Conducting studies on imbalances between biomass supply and consumption	400.000
Promotion of on-farm growing of energy trees and crops, and bioenergy and heterogenous mixed plantations	10.000.000
Promotion of briquettes and pellets production through feasibility studies, technical assistants, financial incentives and pilot plants	2.000.000
Carrying out of capacity development measures in sustainable forest management, agroforestry, waste to energy conversation, urban agriculture, seedling production etc.	3.000.000
Sub total	15.650.000

Actions for ambition 7.3

	<i>Budget (in USD)</i>
Development and adoption of national standards for cooking technologies	100.000
Promotion of technical innovations regarding energy-efficiency of stoves through capacity development and research	2.000.000
Capacity development measures in efficient carbonization technologies	4.000.000
Sub total	7.000.000

Actions for ambition 7.4

	<i>Budget (in USD)</i>
Carry out regular meetings between organizations and institutions from Mano River States, which are relevant for the bioenergy sector	500.000
Promotion of partnerships between SL universities, governmental agencies, CCASL and corresponding international institutions in the field of bioenergy	1.000.000
Sub total	1.500.000

Grand total: USD 57.570.000

4.2. [For countries only] In case support is required for the actions in section 2, please select from below and describe the required support and specify for which action.

[Examples of support for Member States could include: Access to low-cost affordable debt through strategic de-risking instruments, capacity building in data collection; development of integrated energy plans and energy transition pathways; technical assistance, etc.]

<input checked="" type="checkbox"/> Financing	Description 60% of the total USD 34.542.000
<input checked="" type="checkbox"/> In-Kind contribution	Description 10% of the total USD 5.757.000
<input checked="" type="checkbox"/> Technical Support	Description 30% of the total USD 17.271.000
<input checked="" type="checkbox"/> Other/Please specify	Description laboratory and other technical equipment

SECTION 5: IMPACT

5.1. Countries planned for implementation including number of people potentially impacted.

Sierra Leone, around 8.5 million people impacted till 2030 (including population growth)

5.2. Alignment with the 2030 Agenda for Sustainable Development – Please describe how **each** of the actions from section 2 impact advancing the SDGs by 2030.

[up to 500 words, please upload supporting strategy documents as needed]

As stated above, 99% of households use either firewood or charcoal, whereas LPG and electricity is used by around 1% of the population. Most households use as cooking system a three stone fire or simple artisanal stoves with a low energy efficiency of less than 20%. The use of improved biomass cook stoves (ICS) remains insignificant. The penetration rate of such devices is estimated to be below 1%. Nonetheless, locally-made improved charcoal stove such as the “wonder stove” are become more known. Similar stove commercialized in Kenya, Ghana, Togo, Senegal and Mali, are popular there showing that it is possible to achieve access to energy-saving cooking technologies with a thermal efficiency between 25% and 40%. The Government of Sierra Leone has decided to promote market development of these energy-efficient stoves as well as clean cooking systems such as LPG and electricity with the aim to achieve that all households have access to cleaner, energy-saving cooking technologies by 2030. The policies and strategies for the cooking sector are embedded in the updated 2009 National Energy Policy and Strategic Plan, the 2014 Preparatory Phase of a Household Cooking Energy Plan, and more recently, in the SE4All Country Agenda. All three documents advocate for the increased use of LPG as an alternative to wood-fuel, the increased use of ICS, the promotion of alternative renewable fuels and finally the development of awareness campaigns to educate the general population on alternatives fuels and efficient cooking devices.

Several projects, such as the UNDP project “Energy Efficiency Production and Utilization of Charcoal through Innovative Technologies and Private Sector Involvement” have initiated first measure to place in the country efficient kilns for charcoal production, ICS in institutions and to develop standards and certification protocols for efficient kilns and ICS². Experiences from these projects will be used for the action described in the present compact.

Institutionally, cooking energy falls under the management of several government agencies. Even though the Ministry of Energy has oversight over the energy sector, the Forestry Division under the Ministry of Agriculture and Forestry is responsible for forestry resources and therefore for firewood and charcoal production. In addition, the Ministry of Environment, the Ministry of Gender and Children’s Affair, the Ministry of Higher Education, the Ministry of Trade, the Ministry of Finance, the Ministry of Health, the Ministry of Local Government and Rural Development along with local councils, districts and chiefdoms have a say on any policy that affects their localities and therefore on wood energy policies.

² Energy Efficient Production and Utilization of Charcoal through Innovative Technologies –UNDP Consultant

16. August 2021

5.3. Alignment with Paris Agreement and net-zero by 2050 - Please describe how **each** of the actions from section 2 align with the Paris Agreement and national NDCs (if applicable) and support the net-zero emissions by 2050. [up to 500 words, please upload supporting strategy documents as needed]

The National Greenhouse Gas Inventory of 2000 (date of last inventory) attributed the country's highest emission of CO₂ to the Land Use, Land Change and Forestry sector of which wood fuel harvesting is a part. It was responsible for an emission of 5.3 million gigatons of CO₂ compared to 529 gigatons of CO₂ for the energy sector (wood energy not included) and 129 gigatons of CO₂ for the agriculture sector. Around 1.8 million CO₂ Teq are attributable to charcoal produced under current conditions. It is possible to achieve high carbonization yields of 35% by emitting only small amounts of methane. The use of this improved carbonization technique to replace the methods currently used would avoid the emission of 6,6 CO₂ Teq per ton of charcoal produced. Applied to the country's total charcoal production, this reduction in greenhouse gases would reduce the level of emissions from charcoal from 1 812 994 CO₂Teq (the current level) to 689 377 CO₂ Teq. That is a reduction of almost 62%, which would be a significant contribution to climate mitigation goal of the government to keep emissions at low level in spite of economic growth.

The goals set for adaptation in the NDC include increasing resilience capacity at all scales; supporting an integrative approach to climate change adaptation programming and policymaking; allocating 10% of annual national budgets to climate change adaptation across sectors; harmonizing climate-relevant policies and regulations to improve coordination and cross-sector linkages; mainstreaming adaptation into local development plans by 2025; institutionalize NAP implementation through laws, policies, and regulations; establishing a National Trust Fund for channelling adaptation support across sectors; and securing 40% of international development funding to support adaptation priorities across different sectors. These national goals contribute to achieving the Global Goal on adaptation by reducing vulnerability through integrating adaptation considerations into all relevant plans, policies, and strategies, and prioritizing and plan for adaptation. They also ensure that the adaptation component of the NDCs becomes a strategic and ambitious vehicle for capturing, reporting and updating commitments and progress, as well as aligning long-term national development priorities with the SDG framework. The goals contribute to improving the delivery of climate services as prescribed in the National Framework for Climate Services (NFCS). The NFCS will benefit a wide range of sectors and climate intervention areas, including biodiversity, health, energy, agriculture, human settlements, water etc. By implementing the NDC, key actors, including SLMet and SMEs, can produce sector-specific products to enable informed decision-making in the context of the effective, efficient and equitable delivery of climate services across sectors, including in the clean cooking space.

SECTION 6: MONITORING AND REPORTING

6.1. Please describe how you intend to track the progress of the proposed outcomes in section 3. Please also describe if you intend to use other existing reporting frameworks to track progress on the proposed outcomes.

The progress of the outcomes in section 3 will be monitored in the following way:

- Imports of energy-saving stoves will be monitored through customs data;
- Local production and sales of energy-saving stoves will be counted based on the reporting of major stove manufacturers;
- Regular surveys among public institutions will provide detailed data on use of energy-saving or clean cooking technologies;
- The number of planted trees will be calculated annually based on data of relevant institutions and projects involved in afforestation and reforestation activities;
- The data on the production of briquettes and pellets will be based on the data of major producers;
- The efficiency of imported and locally produced improved stoves will be analysed through laboratory testing.

The overall progress of the compact will be monitored through household surveys, the amount of LPG, the number of customers of LPG, calculations on biofuel supply and consumption, and efficiency test of charcoal production and commercial stoves.

SECTION 7: GUIDING PRINCIPLES CHECK LIST

Please use the checklist below to validate that the proposed Energy Compact is aligned with the guiding principles.

I. Stepping up ambition and accelerating action - Increase contribution of and accelerate the implementation of the SDG7 targets in support of the 2030 Agenda for Sustainable Development for Paris Agreement

I.1. Does the Energy Compact strengthen and/or add a target, commitment, policy, action related to SDG7 and its linkages to the other SDGs that results in a higher cumulative impact compared to existing frameworks?

Yes No

I.2. Does the Energy Compact increase the geographical and/or sectoral coverage of SDG7 related efforts? Yes No

I.3. Does the Energy Compact consider inclusion of key priority issues towards achieving SDG7 by 2030 and the net-zero emission goal of the Paris Agreement by 2050 - as defied by latest global analysis and data including the outcome of the Technical Working Groups? Yes No

II. Alignment with the 2030 agenda on Sustainable Development Goals – Ensure coherence and alignment with SDG implementation plans and strategies by 2030 as well as national development plans and priorities.

II.1. Has the Energy Compact considered enabling actions of SDG7 to reach the other sustainable development goals by 2030? Yes No

II.2. Does the Energy Compact align with national, sectoral, and/or sub-national sustainable development strategies/plans, including SDG implementation plans/roadmaps? Yes No

II.3. Has the Energy Compact considered a timeframe in line with the Decade of Action? Yes No

III. Alignment with Paris Agreement and net-zero by 2050 - Ensure coherence and alignment with the Nationally Determined Contributions, long term net zero emission strategies.

III.1. Has the Energy Compact considered a timeframe in line with the net-zero goal of the Paris Agreement by 2050? Yes No

III.2. Has the Energy Compact considered energy-related targets and information in the updated/enhanced NDCs? Yes No

III.3. Has the Energy Compact considered alignment with reaching the net-zero emissions goal set by many countries by 2050? Yes No

IV. Leaving no one behind, strengthening inclusion, interlinkages, and synergies - Enabling the achievement of SDGs and just transition by reflecting interlinkages with other SDGs.

IV.1. Does the Energy Compact include socio-economic impacts of measures being considered? Yes No

IV.2. Does the Energy Compact identify steps towards an inclusive, just energy transition? Yes No

IV.3. Does the Energy Compact consider measures that address the needs of the most vulnerable groups (e.g. those impacted the most by energy transitions, lack of energy access)? Yes No

V. Feasibility and Robustness - Commitments and measures are technically sound, feasible, and verifiable based on a set of objectives with specific performance indicators, baselines, targets and data sources as needed.

V.1. Is the information included in the Energy Compact based on updated quality data and sectoral assessments, with clear and transparent methodologies related to the proposed measures? Yes No

V.2. Has the Energy Compact considered inclusion of a set of SMART (specific, measurable, achievable, resource-based and time based) objectives? Yes No

V.3. Has the Energy Compact considered issues related to means of implementation to ensure feasibility of measures proposed (e.g. cost and financing strategy, technical assistant needs and partnerships, policy and regulatory gaps, data and technology)? Yes No

SECTION 8: ENERGY COMPACT GENERAL INFORMATION

8.1. Title/name of the Energy Compact

Cleaner Cooking Energy Compact for Sierra Leone

8.2. Lead entity name (for joint Energy Compacts please list all parties and include, in parenthesis, its entity type, using entity type from below)

Ministry of Energy of Sierra Leone

8.3. Lead entity type

Government

Local/Regional Government

Multilateral body /Intergovernmental Organization

16. August 2021

Non-Governmental Organization (NGO)

Civil Society organization/Youth

Academic Institution /Scientific Community

Private Sector

Philanthropic Organization

Other relevant actor

8.4. Contact Information

1. Mr. Tamba R. Gbetuwa, Permanent Secretary, email: rayteeb16@gmail.com tel.:+23276660580
2. Ing. Benjamin Kamara, Chief Director of Energy; email: benshinoh@gmail.com, Tel.: +23276369538;
3. Mr. Mustapha Sannoh, Director of Rural Energy, email: mustaphasannoh1@gmail.com, Tel.: +23276369538
4. Robin F. Mansaray, Director Renewable Energy; email: robinmans2014@gmail.com tel.: +23276574642
5. Hartlieb Euler Director GIZ / EnDev Sierra Leone, Liberia, Guinee Tel.: 0049 160 2000 117 hartlieb.euler@giz.de
6. Dr. Carsten Hellpap; hellpap@iidev.de Tel 0049 1522 70 763 70 International Energy Advisor to the Ministry of Energy SL

8.5. Please select the geographical coverage of the Energy Compact

Africa Asia and Pacific Europe Latin America and Caribbean North America West Asia Global

8.6. Please select the Energy Compact thematic focus area(s)

Energy Access Energy Transition Enabling SDGs through inclusive just Energy Transitions Innovation, Technology and Data Finance and Investment.

SECTION 9: ADDITIONAL INFORMATION (IF REQUIRED)

Please provide additional website link(s) on your Energy Compact, which may contain relevant key documents, photos, short video clips etc.