



# SOLAR POWER HUB PROJECT

**MENDEKELEMA-PHASE I**

*PROJECT FACT SHEET*

**DONOR PARTNER**

**ENGINEERS  
WITHOUT BORDERS  
DENMARK**

**IMPLEMENTING PARTNER**



**SEND  
SIERRA LEONE**  
Working to promote good governance and  
equality of men and women in Sierra Leone





## **PROJECT TITTLE**

SOLAR POWER HUB , Mendekelema, Phase 1

## **DONOR**

ENGINEERS WITHOUT BORDERS-DENMARK

## **PROJECT IMPLEMENTING PARTNER**

SEND SIERRA LEONE

## **PROJECT LOCATION**

KENEMA DISTRICT



## **DURATION**

1 MARCH 2023-31ST DECEMBER 2024

## **PROJECT BUDGET**

Euros 119,035



## **PROJECT THEMATIC AREAS**

LIVELIHOOD, CLIMATE ACTION, CLEAN ENERGY  
& ENTREPRENEURSHIP



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## PROJECT BACKGROUND

- In 2017, the rate of multidimensional poverty was 65%, that is almost two third of the population in Sierra Leone was identified as poor. The rate of poverty in rural areas was more than double that of urban areas (86% and 38%, respectively), meaning that poverty is highly concentrated in rural areas.
- Actions by the Government in addressing fragility in Sierra Leone remain weak, illustrated through the low score of overall Country Policy and Institutional Assessment (covering the average of economic management, structural policies, social inclusion/equity, governance and infrastructure) fragility. The fragility score for 2020 was only 3,2 out of maximum 6 score points, at the low end of African countries. The relatively low score is because, although current fragility pressures are well known to state and non-state actors, they are not adequately addressed and consequently persist despite the existence of institutional structures for addressing most of them.
- Sierra Leone, although resource-rich, is a low-income country with a GDP per capita of USD 515 in 2021. The country ranks 178 out of 186 countries on the Global Human Development Index, which was as low as 0.438 in 2022. This is even lower than 0.452 obtained in 2019 before the covid-19 pandemic.
- The country has a Gender Inequality Index-GII value of 0.644, ranking it 153 out of 162 countries (2018 Index).
- Sierra Leone has a young population with 42% of its population under 15, and a rural population with 62% of people living outside of the cities. The median age is 18.5 years, which is disproportionately young and makes for a very young working population. The average woman gives birth to roughly 4.5 children, which is the cause of the substantial population growth rate in the country.
- At the same time the country has one of the highest youth unemployment rates in West Africa (60%). Apart from the negative consequences for the individual, such a high degree of youth unemployment has serious negative consequences for the country by losing talent, innovation and production, and it is a potential source for unrest
- Energy consumption is largely dominated by biomass sourced from fuelwood and accounts for around 80 percent of the energy used. Imported petroleum products, the next largest source of energy, are mainly for power generation and account for 13 percent of energy consumption.
- Sierra Leone has one of the lowest rates of electricity access in the world; the country has a national electrification rate of 26%, with this figure declining to only 6% in the rural areas where the majority of the population lives. With no prospect of getting electricity from main grid-based solutions in a foreseeable future, there is a huge demand for affordable alternative electricity solutions particularly in rural areas.
- The country does not have an agency dedicated exclusively to rural electrification and energy access, as is the case in more advanced settings. Neither does the country have a rural electrification master plan.



## THE TARGETED CONTEXT

- Mendekelema, situated adjacent to the Gola Rain Forest area in the south eastern part of Sierra Leone, about 400 km from the capital Freetown. It covers about 150 hectares of land. It has 15 catchment communities, situated between 2 and 19 kilometers away from the main community.
- Mendekelema has only two primary schools (none of which have electricity) and a small health clinic.
- The most common economic activities in Mendekelema community are farming and business (charging booths, sports centres, business shops, community dance, weekly market every Thursday, petty trading with food and non-food items). At times of the year part of the population has insufficient food for all household members. Hence the non-diversified agriculture sector (mainly producing rice, palm oil plants and groundnuts) and petty trading are the primary activities generating income at the household level, i.e. there are very few micro-enterprises which can generate employment opportunities for the growing young population.
- In Mendekelema and its catchment areas a very high proportion of the adults are illiterate. This is the reason for including a demand driven adult education programme, to be implemented during evening hours with the availability of electricity, in this intervention.
- The community is characterized by in-equality, with a smaller portion of society having access to financial and non-financial resources enabling them to live in much better houses than the rest, and having access to Solar Home Systems providing electricity for light, mobile phone charging, plasma TVs and portable radios.
- There are a total of 722 households in the area, with a population of about 5.733 persons. On average each family has 5 children below 18 years (and 6 children when including young people above 18 years living at home), a very high figure, indicating a significant degree of absolute poverty as well as overpopulation.





## PROJECT SOLUTION

The Solar Power Hub Project is developed to address the livelihood and energy challenges experienced by over 360 households within the Mendekelema community and four other catchment communities by promoting revenue generation using renewable energy.

### THE PROJECT HAS OUTPUTS THAT ARE ESPOUSED FOR SUCCESS:

- Improve livelihood for people in Mendekelema and catchment areas through provision of community solar power.
- Community solar power hub in operation, providing electricity for productive purposes and households .
- Businesses developed through productive use of energy and living conditons of house-holds improved.

## PROJECT OBJECTIVE

Improve livelihood for people in Mendekelema and catchment areas through provision of community solar power.

### A MULTI-STAKEHOLDER APPROACH IS ADOPTED TO ACHIEVE OUTPUTS:

- Establishing a solar power hub which will produce electricity to support the energy needs of micro-enterprises and households.
- A business and sustainability plan will be developed by a local consultant under the guidance of SEND, in close cooperation with the community, to set up a consumer cooperative.
- Capacity building training programme will be carried out for board members, management and staff to equip them with knowledge on roles and responsibilities, financial over- sight, business planning, social and financial sustainability and transparency. Management and staff will be trained in maintenance, bookkeeping, marketing and other areas identified as relevant.
- The local branch of the SEND credit union in Gaura chiefdom will be strengthened through training of staff, enabling it to be able to serve also the Mendekelema area with its services, complementing activities of the hub. Training will also be carried out of SEND field staff in its complaint and feed back mechanism, when being rolled out in communities.



## KEY ACTIVITIES



- Households and micro-enterprises have invested in 100 livelihood productive assets (indicating increase in economic and food security, and resilience).
  - 360 households having improved their net income (indicating sustainable improved productivity and efficient application of acquired business skills).
  - 100 employment/self-employment initiatives created (within primary production transformation, food conservation, new technologies related to internet businesses, mobile phone, tailoring, copying/scanning, barbering, entertainment as well as non-electricity using initiatives) due to the project.
  - Provide training in entrepreneurship, business planning, marketing and bookkeeping as well as other business related areas to 100 young adult trainees from Mendekelema and catchment communities.
  - Provide scholarship for the 10 most prospective young entrepreneurs to participate in an enhanced entrepreneurship programme at Eastern Technical University or private entrepreneurship training provider.
  - 12 VSLAs functioning and providing loans to members, improving possibility for households to have sufficient income to rent solar driven gadgets.
- Linkage of VSLAs to Credit Union to enable larger investments to be undertaken.
- Build capacity of the SEND credit union branch in Guara chiefdom enabling the branch staff to support VSLAs and productive use of energy investments in Mendekelema.
- 360 rural residents will participate in a 12 months adult education programme, significantly improving their ability to read, write and do arithmetic.
- Construction and equipping of a 10KW solar power facility to generate electricity for business and household use within the
- Mendekelema community and its catchment areas as well as provision of solar-powered gadgets for business and household use.





# PROJECT LOCATION

CHIEFDOM

GAURA CHIEFDOM

COMMUNITY

MENDEKELEMA

SENEHUN SEFULA

SENEHUN BUENA

MAHOMA

# TARGET BENEFICIARIES



**360**  
ENTREPRENEURS



**12**  
VSLA GROUPS  
ESTABLISHED



**10**  
SOLAR HUB  
BOARD MEMBERS,  
MANAGEMENT &  
STAFF TRAINED



**20**  
UNIVERSITY  
STUDENTS  
SUPPORTED



**5**  
SEND STAFF  
TRAINED

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