



START N LIGHT S/L LTD

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PHASE 2 PROJECT REPORT FOR EWS SHOENAU May 2022

Project Context

The **Start N'Light** project generally pursues the goal of promoting economic development in rural areas in Sierra Leone by improving living conditions through the development of entrepreneurial activities, with the provision of electricity from renewable sources that is largely self-sustaining in the long term.

The project takes a holistic approach, starting with ensuring light in households, streets lighting (security), Training (education), youth empowerment and administrative governance, and extending into the agricultural sector in terms of solar-powered micro-irrigation for food security and livelihood.

Start N'Light strives for more efficient processing of the agricultural products produced through the provision and supervision of post-harvest machinery and better marketing through the organization of micro-cooperatives.

Another project focus is the operation of a training center to ensure the maintenance of the PV installations (as well as the 25-45 KVA wind turbines planned) and the creation of job opportunities for young electricians. In the first phase of the project, a one-room training center for 20 men and women was created, which is now being expanded to 4 classrooms that can be taught simultaneously.

Start N'Light maintains its commitment to the creation of a poverty-alleviating scheme through the provision of affordable and sustainable electricity. This project brings a lot of opportunities that enabled villagers get access to electricity and a digital learning platform for advance solar and basic computer training services.

Phase 2 Objectives

Even though, there were serious challenges that had affected the regular training and the construction of 4 classrooms that was to be completed within six (6) months and was supported by EWS Schoenau with € 9987 Euros in 2021. The funds were initially dedicated and budgeted for the following objectives and activities:

(1) Four classroom training site construction (2) Scholarship for trainees (3) Community women business enterprise loan and expansion of farm garden irrigation system, (4) Solar, Electrical Electronics & Computer Training materials, (5) Contracts extension for 4 training professionals.

However, three out of five activities were started, some completed and other ongoing.

(1) The construction of the 4-classroom training center is ongoing. However, the increase in price of



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construction materials and the high cost of delivery to project site made it necessary to use the scholarship funds (2). Ever since the outbreak of the corona pandemic the construction material prices have risen. Additionally, the initial construction plan had to be modified to meet the newly released district building standards.

Also the completion time frame was affected by the modification and climate condition. Heavy winds and rains destroyed many homes including our construction site where materials were kept. This climate condition with much stronger winds has never been seen before in the area. We believe that this extreme weather event is an effect of global warming but was also partially caused by long term and current deforestation through uncontrolled timber logging and bush fires. In practice it meant for us that the scholarship budget had to be redirected to the unexpected increase in construction costs. Nevertheless those scholarship funds are planned to be reinstated back after the completion of the construction and the commissioning of the training center.

In conclusion, the construction of the training center at Kabomboh village is to allow trainees to be with their families and still be trained. This has been one of the major reasons for the construction in Kabomboh, since the previous center was 175 km away in Tagrin. A wind turbine concrete tower has also been erected, and upon completion, a 25-45 KVA wind turbine power system is expected to be installed.

(3) The community women business enterprise loan and the expansion of farm garden with the help of solar-powered irrigation system to 1.2 hectares and land allocation to 120 women has been achieved through the creation of **Mayoho women Development Group** organization that was formed to carry out the functions of the women business enterprise loan scheme and expansion of the farm garden from 1.2 hectares in one village up to 2.4 hectares in two villages combined. Allocation of farmland from 120 women has now increased to 225 hardworking community women, counting in these two villages. Solar powered water pump irrigation was installed but had to be removed due to other climatic reasons. Reinstallation was resumed beginning of the year but with some challenges as the number of farmlands has now increased. We are trying different methods to maximize the output capacity so the water can serve equally all participating farming women.

Water irrigation system for farmland is a critical part of the community development and income generating opportunities which ultimately enables households to be able to pay for electricity as pre-paid meters have now been tested, calibrated and installed in each of the connected households.

(4) Solar, Electrical Electronics & Computer Training materials and computer IT equipment has been gathered and already been configured. As soon as the classroom construction are completed and training classes can resume they are ready to be used. New solar power inverters and batteries are being replaced and added for sustainability issues. Defective PV panels and cables were removed and refurbished. The contracts for the 4 training professionals (5) are on hold due to the delay at the construction site.

Below are some photos of the 2021 Start N Light projects in Kabomboh village.



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Training center construction



Staircase construction



Concrete pillar construction



Start n light project accessments



Mayoho women at work



4 room extension block work



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<p>Residential 7.5kv solar system installation, monitoring and sup</p>	<p>Trainees installing 7.5kv solar inverter system</p>	<p>7.5kva PV installation. residential contract realized by Start N'Light trainees</p>

Outlook:

Start N Light outlook for 2022 is as follows:

- 1) complete the four (4) classroom training center construction at Kabomboh, village
- 2) equip classrooms with basic course work training materials
- 3) renew contracts and recruit and screen new professional trainers for the basic training courses
- 4) procure and install more solar power generating equipment
- 5) secure funds for small business enterprise micro loan scheme for women's group
- 6) install more farmland solar water irrigation system to further increase output

Report of finances received from EWS Schoenau

ONE PILOT VILLAGE OF KABOMBOH PV SYSTEM				
	Measures/Item	Expense In Leones	Expense in Euro	Balance
1	Scholarship for trainees – <i>added to construction budget</i>	Le 20,000 000	€1667	
2	Six months 4 classroom training site construction	Le 60,000 000	€5000	€8320
3	Community women business enterprise loan and Expansion of farm garden irrigation system	Le 12,960 000	€1080	€3320
4	Solar/Electrical/Electronics and Computer training materials	Le 6,000 000	€450	€2240
5	Contracts extension for 4 training professionals –	Le 13,080,000	€1090	€1790



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	<i>on hold, awaiting construction completion</i>			
6	Project visit for monitoring – <i>in planning</i>	Le 12,000 000	€700	€700
	Sub Total Total	Le 119,244 000	€9987	€ 000

In **conclusion**, the construction of the training center is progressing as we were able to clear out some regulatory issues and re-draw a new building plan that features modern designs and specs. Construction is expected to complete by end of fall, with first classes starting in early 2023.

Start N Light is still facing with some construction challenges as material has gone three folds in the past months/years. Therefore, procuring building materials and other work services have been very expensive and difficult. Previously only the risk that material gets stolen was in the focus of the project management, but now the weather conditions with those extreme events like the storm last year have changed in a way that makes conscious planning around this new risk necessary. In the future we will employ the long term climate mitigation plans with the Environmental Protection Agency (EPA) by planting trees around the center and build a strong concrete wall fence.

The Mayoho women group farm land irrigation system increased the output in the first phase. Maize and other cash crop vegetables were harvested which doubled the yield and increased their income by 45% compared to the previous years when they did not have such system for water movement. This increase in revenue enabled them to grow an additional semiannual crop which is cassava that is the second most consumed food after rice in Sierra Leone. This success brought the Mayoho women together with a strong determination to embark more systematically on this effective opportunity for real improvement provided by Start N’Light with the help of its supporter, partners and foundations like EWS Schoenau.

Start N Light mobilizes funds by charging a fee for energy use through the installed prepaid energy meters powered by a 5KVA capacity solar power system in this community. Even though this revenue is not enough to sustain the system but it contributed to the development, and of course it created awareness that electricity is not free as we provide 20 to 30 KW hours per day every day with a charge of Le1000 (one thousand Leones) per kilo watts hour.

With this small income we are carrying out residential and commercial solar system installation and repairs of health center solar water pumps systems. In general we use these proceeds to offset delivery and maintenance costs of the power system in the village. As in the years before the pandemic we are also working with UNDP and other partners on system up-scaling to increase the power generation capacity that would allow us to serve nearby villages as well. We are currently waiting for a second invitation by UNDP to submit a detailed proposal.



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All **Start N'Light** team members want to express their strong appreciation and would like to ask all friends, donors and partners to continue their support that helps to make this a successful and beneficial project for all. It has been so due to the fact that the beneficiaries are much more involved in the implementation of some of the project activities especially in the construction work. Let us allow finishing this report with honest but frank words: this involvement and direct participation will continue as the Start N'Light guiding principle – although it may at times add considerably amounts of arbitration duties, motivation efforts, delegation and organizing tasks and heaps of headaches in general.

Thank you.

Mohamed Jah & Alpha Jalloh