

REPORT

Solar Women's Economic Empowerment Program (SWEEP)

First Pilot – Makoko Women Solar Program

Glow Initiative for Economic Empowerment recently announced the Solar Women Economic Empowerment Program (SWEEP) and its first pilot - Makoko Women Solar Program supported by the U.S. Department of State Mandela Washington Fellowship reciprocal Exchange Program. The SWEEP initiative invested in solar technology to improve the lives and livelihood of select Makoko Women fish farmers and traders. Their first pilot – Makoko Women Solar Program was held on the 14 – 16th March 2020.

About Makoko

Makoko is an urban slum silt situated on the Lagos Lagoon with an estimated population of 105,000. The major means of livelihood is fishing. The men do the fishing, while the women prepare and sell the fish in markets. The lack of stable electricity has led to the damage of leftover fish that was not sold. The hefty smoke which comes from long hours of smoking fish aids climate change and reportedly increased respiratory issues and eye problems causing the women to give up on the business and lose their means of livelihood. This situation inspired the Makoko Women Solar Program that trained the women on how to design and install solar electric systems and how to build important solar technologies for fish and other technologies to aid them start up own solar businesses. The project additionally launched a solar center where Makoko Women will gather and receive knowledge and support from a trained center manager as they journey into the world of solar entrepreneurship.

Changes in the community as a result of the Project

Trust, renewed hope. The people in Makoko community expressed more trust and hope after being introduced to the project team on the day that we made an introductory visit with my American partner. I could see the renewed hope in their eyes. Apparently many other organizations had made promises they did not fulfill. All the while we were planning the project with them; it seemed they believed it haphazardly. It looked like they felt that we wouldn't really build a solar powered center for them through which they will sell electricity and teach their women how to design and install solar panels for electricity generation. But the fulfillment of our project helped them regain trust that there are genuine organizations who will invest in their progress and livelihood.

The solar powered center is generating electricity for the community members. What is especially interesting about this center is that the solar was installed with supervision by the trained Makoko women themselves so this makes them see it as their own very project.

The project was four part spread across two full day training:

- 1) Learning about Basics of Solar Energy and how solar panel generate electricity in collaboration with batteries, inverter, charge controller and cables and a balance of system.
- 2) Hands on practical and simulation of how solar generates electricity using panels, inverter, batteries, charge controller, cables and a load. The women saw how their phone began charging from this exercise.
- 3) Lecture on solar entrepreneurship by Solar Sisters who also shared about their products which help alleviate energy poverty.
- 4) Live installation of solar on the center which currently is generating electricity for them.

Outcomes

- Many more people can now come to the center to learn more about how solar works, solar packages that can work for their homes or small business, receive training on solar advocacy by our trained Makoko women leader who is in charge of the center. The solar center has introduced a new kind of joy to the community as it is a one stop place where you can get electricity non-stop at any time of the day.
- The solar center has lightened up the community and many of the trained women are now working on installing solar in their homes leveraging on the training they have received and the after support and guidance which will be provided by the trained center manager.
- The trained women will walk up to the solar center at anytime and seek support and advice from the center manager around installing solar in their homes, starting a solar business, building their own solar powered dryer for fish.
- The trained women will access all tools / equipment and advice needed to build their own fish dryer from the center. They will build it at the center supervised by the center manager and carry it to their homes or place of business afterwards.

The Inspiration

The center manager - Mariam was the young lady that inspired this project and also served as the community contact for Makoko women and assisted heavily during the project planning and implementation.

I had met Mariam at a different event where i was speaking on a panel on the title - ABCs of solar business. she had come with other women from Makoko and She had raised up her hand in the crowd and asked me a question. She had said 'My name is Mariam. I am from Makoko slum community on the water; the women of my community mostly prepare and sell fish that had been caught by their husbands. Many times, their fish get damaged due to no preservatory means and a lack of electricity. Also, when they smoke their fish in preparation for sale at the market, it releases a lot of smoke which disturb the women. Infact, many of them have stopped the business due to eye problems from the smoke.' Then she asked - "Is there any solar solutions for this problems'? So since then I began to look for a way to solve this problem and this led to the Solar Up Makoko Program.

Cont'd (Outcomes)

- This representative Mariam – was empowered with solar products which she can sell at the center and also use to demonstrate how solar works to the people who will come to make enquiries about solar in the center. Some of the products includes, solar lamps, solar flood light for use out at sea for the fisher men and women and clean cook stoves.
- She will also assist the women who might like to venture into solar entrepreneurship by giving them products they can sell and pay back to her.
- Part of the goals of the solar powered center is to sell electricity. In this center, people can walk in and charge their phones at a small fee. The money raised from this will be saved to later purchase a white board, a projector and a bigger extension for the center so that the center manager can continue to train and teach people about: a) how solar works to generate electricity, b) practical / easy ways and options to switch to solar for community members, c) starting a solar business, d) building your own solar dryer, e) designing a solar system for your home or small business etc.

Best Part of the Program for me

On the second day of our project the women were trained on how to install a solar panel on the roof of the newly built solar center for electricity generation (after we had done a practical simulation of how this will work - how the sun generates electricity that will power a load on

the first day and the women's phones were charged from this initial practical). All 20 of them took turns to participate during the live installation on the center.

I would never forget the feeling I felt when during the very last tightening of a bolt to the battery and Light shone through the LED Bulbs in the center, completely powered by the sun - The cheer and shouts of joy from the women telling each other congratulations and screams of "Solar is Working" which filled the atmosphere will live with me forever.

Early Success Stories emerging from the Center

- 1) On the very day we finished the training (16th March) whilst we were in the center rounding up, up to five people walked into the center very excited to see light in the midst of no electricity. They inquired about how they can power their own homes. Two of them who owned barbing centers for men's haircut, inquired about how to power their barbing centers. Presently, up to 20 people has visited the center to learn more about solar for their homes. This presents valuable opportunity for the recently trained women.
- 2) The center Manager - Mariam sold 6 solar lamps on the first and second day. Presently, she has finished the first batch of solar products purchased (15 pcs in total) for her and ordered a second batch of solar lamps and a sea solar lamp for fishermen who work at sea.
- 3) On the first day, 12 people paid for their phones to be charged and 17 people paid on the second day, 11 people on the third day. Presently, up to 200 people have charged their phones at the center generating income for the center which will be reinvested into purchase a white board and a TV for solar education.
- 4) On the first day, a resident of the community came to the center and asked Mariam to supply him with one carton of solar lamps so he can sell them at his shop. Mariam is now working on getting the supplies ready.
- 5) 7 more people walked into the center on the second day inquiring about how they can get solar for their own houses. A man who owns four building in the community invited one of the women to come and conduct an energy audit in his houses so that he will install solar electricity in them.