

Off-grid Solutions Project



Kenya Activity Report

Using Electricity for Storage of Vaccines and Raising Chickens

April 20, 2020

Constant availability of vaccines which has become possible by electricity increased the number of vaccination in the local dispensary.

In a dispensary located in the Enkutoto district, a refrigerator has been in operation since 2019 with electricity provided by photovoltaic and energy storage systems for storing vaccines. Previously, people often had to walk for two hours to a remote health center to receive vaccines due to unavailability of vaccines at the local dispensary, which had put a heavy strain on mothers with babies and young children to receive routine vaccinations several times a year.

As the local dispensary started to store vaccines, more mothers and children are being vaccinated, with the number of shots increasing from 199 in 2018 to 428 in 2019. The availability of electricity at the dispensary has been improving the health status of local residents.



Vaccines stored in the dispensary's refrigerator

Poultry farming has started on the dispensary's premises.

A poultry farm was built at the back of the dispensary to raise 500 chickens. Currently, the electricity provided by photovoltaic and energy storage systems is used for farm lighting and heating.

Once egg production goes on well, eggs will be provided for primary school lunches to improve children's nutrition or sold to increase the community income.

In addition, they will start to incubate some of the produced eggs by operating an incubator with electricity to sustain the poultry farm.



Five hundred chickens are being raised in the large chicken farm (left). The incubator will be operated with electricity provided by photovoltaic and energy storage systems.

Improving teaching materials for facilitating learning class for women

A literacy class is designed for adult, especially for women who had to give up learning due to early marriage and other customs, and those who hope to improve their lives. The learning program has recently been launched. At 7 p.m., women gather at the church to participate in the class.

They are eager to learn with an enthusiastic look under lighting powered by solar storage units. The project team will take account of participants' jobs and create teaching materials with familiar topics for them, which makes the program more useful and participants enjoy learning.



Solar storage units equipped with LED lighting enabled the evening learning class.

Vocational school authorized by the county government will develop local electronics technicians.

For the continuous improvement of living standards by utilizing electricity, programs are being launched to develop individuals capable of handling maintenance and minor repairs of photovoltaic and energy storage systems.

Individuals who are able to identify fault conditions and analyze the causes are essential to run the facility by themselves, which will minimize repair service costs.

Currently, a learning program is under discussion with the vocational school to develop a specific program customized for the project.
