

ZAYED  
SUSTAINABILITY  
PRIZE



جائزة  
زايد  
للاستدامة

## Project Update Report

Nov 2019 – Oct 2020



### PARTNERS



مستشفى أبوظبي للتنمية  
ABU DHABI FUND FOR DEVELOPMENT



وزارة التسامح والتعايش  
MINISTRY OF TOLERANCE & COEXISTENCE



Masdar مصدر  
A MUBADALA COMPANY إحدى شركات مبادلة



ماجد الفطيم  
MAJID AL FUTTAIM

# TABLE OF CONTENT

Executive Summary.....	4
Introduction.....	6
Launch of the 20by2020 initiative.....	8
<b>Tanzania Deployment.....</b>	<b>14</b>
Background.....	14
The Challenge.....	16
The Solution.....	16
The Impact.....	17
Case Study.....	18
About Sanku.....	19
<b>Nepal Deployment.....</b>	<b>20</b>
Background.....	20
The Challenge.....	22
The Solution.....	22
The Impact.....	23
Case Study.....	24
Testimonials.....	25
About We Care Solar.....	26
<b>Uganda Deployment.....</b>	<b>28</b>
Background.....	28
The Challenge.....	30
The Solution.....	30
The Impact.....	31
Case Study.....	31
About We Care Solar.....	32

<b>Jordan Deployment.....</b>	<b>34</b>
Background.....	34
The Challenge.....	36
The Solution.....	36
The Impact.....	37
Case Study.....	38
About Sunna Design.....	39
<b>Egypt Deployment.....</b>	<b>40</b>
Background.....	40
The Challenge.....	42
The Solution.....	42
The Impact.....	43
Case Study.....	44
Testimonials.....	45
About Sunna Design.....	46

# EXECUTIVE SUMMARY

Inspired by the legacy of the UAE's founding father, the late Sheikh Zayed bin Sultan Al Nahyan, the 20by2020 initiative champions his sustainability and humanitarian values. The initiative oversees the donation of innovative solutions and technologies of previous Prize winners and finalists to vulnerable communities in 20 countries.

Since its launch on 18th December 2019, the initiative has deployed technologies in five countries – Nepal, Uganda, Tanzania, Jordan, and Egypt.



## INTRODUCTION

Led by the Zayed Sustainability Prize in partnership with Abu Dhabi Global Market, Abu Dhabi Fund for Development, Mubadala Petroleum, the UAE Ministry of Tolerance and Coexistence, Masdar, and Majid Al Futtaim, the initiative deploys technologies of previous Prize winners and finalists, and seeks to foster an environment of stability and empowerment within all communities where donation activities occur.

**20by2020 is a natural extension of the Zayed Sustainability Prize's ongoing commitment to work with its winners and finalists, by continuing to support their goals and allowing their solutions to reach a much wider number of people, around the globe.**



## LAUNCH OF THE INITIATIVE

Following the official launch of the 20by2020 initiative during a press conference on 18th December 2019, the announcement received a large degree of media attention, with widespread coverage from local, regional and international media outlets. It generated a total of 105 clippings in online, print and broadcast media.

The coverage received a total AVE of \$353,090 and generated a potential reach of 1.6 billion visitors/readers\*.

*\*A clipping report is provided in the appendix.*



Excerpts from statements by the Director General of the Zayed Sustainability Prize and some of the 20by20 partners.



“The ‘20by2020’ initiative is a creative way to leverage the outcomes of the Zayed Sustainability Prize for greater impact around the world. By drawing on the innovative solutions created by Prize finalists and winners, many more people will benefit and the legacy of our founding father, who was a committed humanitarian and advocate for sustainable development, will be honoured.”

**H.E. Dr. Sultan Al Jaber**  
UAE Minister of Industry and Advanced Technology and Director General of the Zayed Sustainability Prize



“Abu Dhabi has been at the forefront of global innovation and transformational developments that underpin the UAE’s strengths as a global business hub and sustainable economy. The ‘20by2020’ initiative is another excellent humanitarian and sustainable development programme that leverages innovation to meet the urgent needs and growth of the region.”

**H.E. Ahmed Al Sayegh**  
UAE Minister of State and Chairman of Abu Dhabi Global Market



“We commend the ‘20 by 2020’ initiative for its inspiring and intelligent approach to tackling global development challenges, and we have every confidence that in partnering with the Zayed Sustainability Prize, ADFD will amplify the transformative impact of the Prize, and bring its 48-year track record to bolster economic self-reliance and prosperity in communities worldwide.”

**H.E. Mohammed Saif Al Suwaidi**  
Director General of ADFD



“As Abu Dhabi’s international upstream oil and gas company, we have always been committed to contributing to the long-term, sustainable development of communities where we operate – which is reflected in our well-established, impactful and recognized community investment initiatives. We are very pleased to be partnering with the Zayed Sustainability Prize for the ‘20by2020’ humanitarian initiative, to reach other vulnerable communities and bring real change to their lives.”

**Dr. Bakheet Saeed Al Katheeri**  
CEO of Mubadala Petroleum

# DEPLOYMENT REPORT

5 COUNTRIES

# TANZANIA DEPLOYMENT

## Installation of flour dosifiers in Dar es Salam by Sanku



**Date of deployment:** 16<sup>th</sup> Dec 2019  
**Solution:** Flour dosifier  
**Quantity:** 10  
**Solution provider:** Sanku, 2019 Zayed Sustainability Prize winner in the Food category  
**Location:** Dar es Salam, Tanzania  
**Impact:** 50,000 people have access to nutritious food everyday

### Background

Tanzania has a population of approximately 55.6 million—out of which 9.7 million are children under the age of five. 34% and 16% of these children suffer from stunting and are underweight respectively (USAID).

Tanzania's most populous city is Dar es Salaam and it is projected to be home to approximately 1 million people by 2030 (World Population Review, 2020).

Three-quarters of the congested city's residents live in informal settlements with inadequate sanitation facilities leading to frequent outbreaks of diarrhoea and cholera in communities. Malnutrition within local communities lowers immunity amongst its members and makes them regularly susceptible to various infections.



## The Challenge

In addition to the high rates of children who suffer from growth stunting in Tanzania, there is an overlap with other nutritional challenges, including anaemia in women who are of the reproductive age and children. There is also increasing level of individuals who are overweight and obese (World Food Programme, 2019).

There are huge variations in the nutritional status of children under 5 years of age. Ten regions account for 58% of all stunted children and five regions account for half of the children suffering from severe acute malnutrition in Tanzania.

High rates of anaemia and low body mass index among adolescent girls and pregnant women are also causes of concern. Investing in nutrition is essential for Tanzania to progress. It is estimated that the country will lose US\$20 billion by 2025 if the nutrition situation does not improve. In contrast, by investing in nutrition and improving the population's nutritional status, the country could gain up to US\$4.7 billion by 2025.

Dar es Salaam is one of the regions with higher numbers of stunted children and prevalence of chronic malnutrition. UNICEF has put this region in the priority list for nutrition interventions (Tanzania National Nutrition Survey, Final Report, June 2019, UNICEF).

## The Solution

Sanku installed a dosifier onto the small African flour mills in Dar es Salam that produce and sell the staple food that families eat every day.

Flour dosifier adds precise amounts of essential nutrients into flour during the milling process, with the potential to end micronutrient malnutrition through inclusive fortification. Maize flour fortified with Zinc, Folic Acid, Iron, and B12 has proven to have most critical long-term impact on health – reducing infant mortality, preventing stunting, improving educational outcomes, and boosting productivity.

Sanku offsets the cost of the miller's nutrients by bulk buying empty pink flour bags, which are then sold to the millers to pack their flour. The savings from each flour bag are enough to cover the entire price of the miller's nutrients.



To ensure the long-term sustainability of the project, Sanku monitors the miller's use of the dosifier remotely through a cellular link, and visits the mill if the dosifier is not in use or needs repair, as well restocking their nutrients.

## The Impact

Through the initiative, 10 dosifiers were installed at various mills allowing millers to collectively feed fortified flour to more than 50,000 people each day.

The addition of essential nutrients in the flour will help:

- Improve the general health and wellbeing of children.
- Increase resistance to infectious illnesses and thereby decrease morbidity.
- Accelerate the physical growth and mental development of children and improve their academic performance and learning abilities.
- Prevent anaemia in mothers which improves their health and pregnancy outcome.



## Case Study

Khalima Juma, a 33-year-old mother, owns a food stall selling food in a poor area of Dar es Salaam in Tanzania. She was raised by her grandmother, along with her six siblings, having access to only one meal a day.

“While growing up, I lost my friends to malnutrition. It was very common to hear of children being born with stunting and retardation because of lack of nutritious food.” Having witnessed such pain and death early on in life led to an apprehensive first pregnancy for her. She shares, “I was so fearful that my child might be born with nutritional problems, I started attending sessions at a health center to learn about food and nutrition.” This education then inspired her to open a food stall and directly impact her community.

She now sells ugali, a traditional dish made of maize flour, using fortified flour. The food stall not only provides her with a regular income but also enables her to fulfil her dream of serving her community.

Running the stall for two years now, she says, “I am so happy that I got the opportunity to



source fortified flour from a miller supported by Sanku. It gives me immense satisfaction to know I am able to give my people healthy food.”

The owner of the mill calls Khalima the ‘community’s hero’. He says, “We have a small number of women with knowledge on the importance of nutrients and she is among those few. Buying about 25 kilos of fortified flour, she is one of my regular customers. All of us eat the nutritious ugali from her.”

She adds, “My profits from the food stall are steadily increasing and I hope malnutrition within my community is steadily decreasing.”



## About Sanku

Sanku reaches out to communities who are vulnerable to malnutrition by equipping and incentivising small-scale, local millers to fortify their flour with innovative technology, adding micronutrients that are scientifically proven to improve health and vitality in the food Africans eat the most. 150 of their

fortification machines are currently installed in flour mills, across five East African countries.

Sanku won the Zayed Sustainability Prize in 2019 in the Food category.



Scan QR code to watch the deployment video

# NEPAL DEPLOYMENT

## Installation of solar suitcases in health clinics



**Date of deployment:** 28<sup>th</sup> Nov 2019  
**Solution:** Solar Suitcase  
**Quantity:** 10  
**Solution provider:** We Care Solar, 2019 winner in the Health category  
**Location:** Bhojpur, Ilam, and Shankhuwasabha  
**Impact:** 6,000 mothers and new-borns will gain access to better healthcare in 5 years

### Background

Nepal has a population of approximately 28 million and suffers from a severe electricity supply crisis. Electricity is only available in urban areas and thereby, most rural areas suffer from various challenges due to power shortages. Long power outages affect the health sector adversely throughout the country, leaving people in critical situations.

The objective of this deployment was to improve the maternal and child health in remote areas of Nepal that lacked proper health care due to lack of electricity.



## The Challenge

Nepal has made significant progress in reducing child mortality and improving maternal health. From 2000 to 2017, the maternal mortality rate decreased from 548 to 186 per 100,000 live births (World Bank). However maternal and neonatal mortality remains one of the biggest public health problems in the country, mostly due to lack of skilled birth attendants and the absence of emergency services and equipment in rural health centers. Obstetric emergencies require prompt, appropriate and reliable care. Unreliable power and communication in health facilities results in life-threatening delays in care, inadequate lighting for obstetric and surgical procedures, and under utilisation of health facilities.

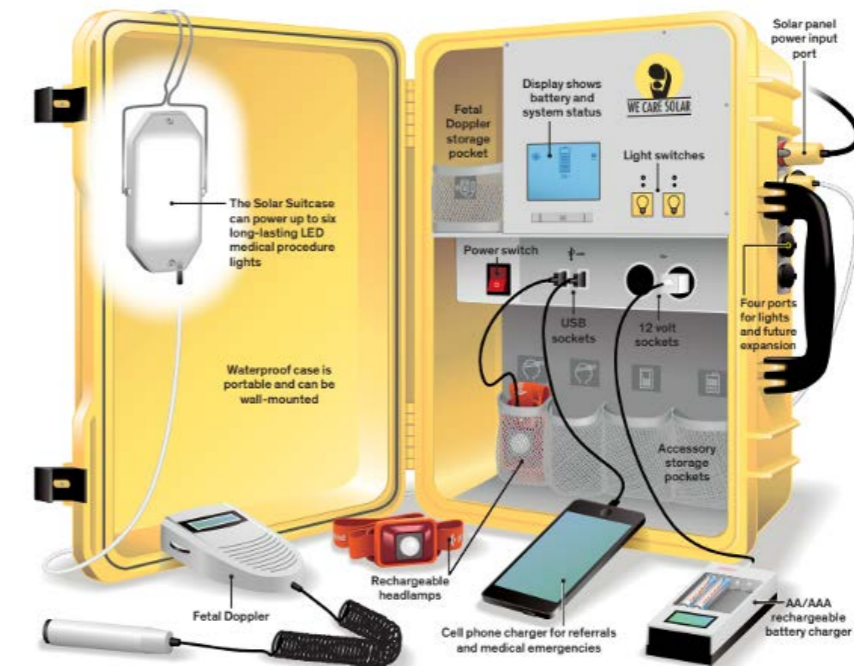
Without electric lights, health workers cannot safely provide essential healthcare and infection control. They are compromised in their ability to properly examine, diagnose, treat, conduct essential medical procedures, and life-saving obstetric care. Health clinics, maternity wards, surgery blocks, medical warehouses and laboratories rely on electricity to refrigerate medicines, power lights, sterilise equipment and operate life-saving medical devices. Intermittent or unreliable power sources put lives at risk.

## The Solution

Solar suitcases were installed in 10 health facilities in Bhojpur, Ilam, and Shankhuwasabha.

Solar suitcase by 'We care Solar' is a robust, easy-to-use solar electric system that provides last-mile health facilities with

highly-efficient medical lighting and power for mobile communication and small medical devices. It is specifically designed to assist midwives and medical professionals in fetal monitoring while acting as a communication device.



The system includes a 12V, 20Ah lithium ferrous phosphate battery, four high-efficiency LED lights for medical task lighting, two 12V DC accessory (lighter) sockets, two USB ports, and two expansion ports to allow for optional accessories or additional lights.

## The Impact

With the installation of 10 solar suitcases, The project created jobs and helped reduce 6,000 mothers and new-borns will gain carbon emissions by 80 tons per year. access to better maternal healthcare in 5 years.



## Case Study

Many of the remote villages in Nepal either lack total access to electricity or suffer from extreme power outages several times a day—putting pregnant mothers and babies at risk. Midwives working at these birthing centres depend upon combinations of candles, flashlights, flashlights on their mobile phones and oil lamps as their source of light while conducting the childbirths, a rather simple and traditional solution which is largely ineffective and unhygienic.

Solar Suitcases are powerful enough to light typical birthing centres, comprised of mostly four-room single-storied building. Four LED lights provide a combination of fixed and mobile medical procedure light. LED headlamps provide additional focused light for suturing or moving outside of the facility. Phone charger ensure that midwives can call for help when needed. And the fetal Doppler provides mothers and midwives with an accurate way to assess the fetal heartbeat. Amrit Wanim is an auxiliary nurse midwife who works at the Walankha Health Post,

far from any cities. “The Solar Suitcase has been an absolute game-changer for us,” says Amrit Wanim, one of the ANMs, who has been working at this health post for the last 13 years. “The number of women seeking ANC and delivery services is increasing day by day and Solar Suitcases are one of the contributing factors.” Along with the Solar Suitcase, the 20by2020 initiative supported the renovation of the birth centre and provided equipment and training. “We are in a much better position to provide effective services to the community.”

“The solar suitcase has been an absolute game-changer for us. I have been working at this health facility for the last 13 years. The number of women seeking ANC and delivery services is increasing day by day and solar suitcases are one of the contributing factors. Along with 20by2020 initiative supported birthing centre renovation, equipment support, and training programs, we are in a much better position to provide effective services to the community.”



## Testimonials

Rita Khatri, has been working as an ANM at the Fedigut health post for the last three years. This health post was upgraded to a birthing centre last year and has no grid connection, making solar energy the only means of alternative power. The existing solar back-up was used for the whole health post with no dedicated power for the delivery room.

Rita says, “Now we have a solar suitcase in the delivery and post-delivery rooms. Earlier, we could only depend on mobile phones. The solar suitcase, provided to us, has made delivery in the night time very easy and comfortable. With headlamps and other equipment, we are able to attend to complicated deliveries as well.”

**Auxiliary Nurse Midwife (ANM) from Fedigut Health Post, Okhaldhunga**



“My husband brought me to the Dorpa Churi Dada health post in the evening. The Auxiliary Nurse Midwife examined me with a solar doppler and headlamp and told us about the new solar suitcases. They convinced me that night deliveries have become very safe with these suitcases. It made me very comfortable and filled me with joy when I delivered a healthy baby just before midnight. I can tell you, it was the best feeling ever when I saw my new-born under the solar light!”

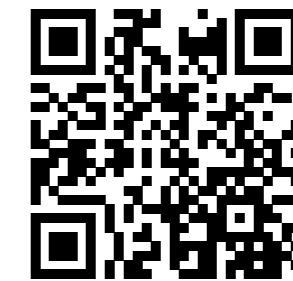
**Pregnant woman, Dorpa Churi Dada Health Post, Khotang**

## About We Care Solar

We Care Solar promotes safe motherhood and reduces maternal mortality in developing regions by providing health workers with reliable lighting, mobile communication, and medical devices using solar electricity. programmes with dozens of partners around the world.

Since 2011, We Care Solar has been conducting Solar Suitcase installation

We Care Solar won the Zayed Sustainability Prize in 2019 in the Health category.



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# UGANDA DEPLOYMENT

## Installation of solar suitcases in health clinics



**Date of deployment:** 28<sup>th</sup> Nov 2019  
**Solution:** Solar Suitcase  
**Quantity:** 10  
**Solution provider:** We Care Solar, 2019 Zayed Sustainability Prize winner in the Health category  
**Location:** Minister's Village of Ntinda, Kampala  
**Impact:** 12,000 mothers and new-borns will gain access to better healthcare in 5 years

### Background

Uganda's electricity access stands at 45% at the national level with only 8% of the rural population having access to electricity. Despite an increase in grid electricity access over the last couple of years, a large number of the relatively widely dispersed rural population is unlikely to be able to access the national grid in the near term.

The objective of this deployment was to improve maternal and child health in remote areas of Uganda that lacked proper health care due to lack of electricity.



## The Challenge

Every day, approximately 830 women die from preventable causes related to pregnancy and childbirth, according to the World Health Organization. Uganda has one of the highest maternal mortality rates at 343 per 100,000 live births.

In many parts of sub-Saharan Africa including Uganda, fewer than one-third of health facilities have reliable access to electricity. Without power, midwives and doctors must treat patients through the darkness of the night. This makes deliveries

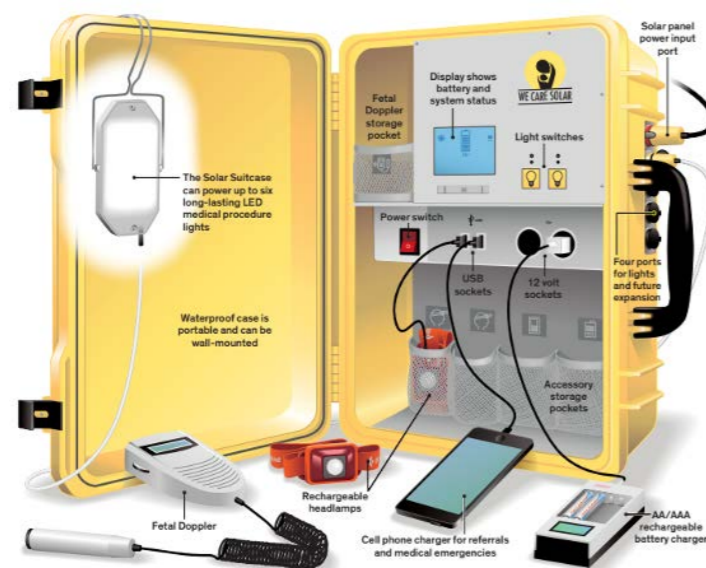
and treatment more difficult and dangerous for mothers and children. Lack of sufficient lighting increases the risk of infection and birthing complications. In clinics and hospitals without electricity, such difficult working conditions means turnover rates among midwives, doctors, and nurses can be high, disrupting the availability of healthcare providers for patients in need.

## The Solution

Solar suitcases were installed in 10 health facilities in Minister's Village of Ntinda, Kampala, Uganda.

Solar suitcase by 'We care Solar' is a robust, easy-to-use solar electric system that provides last-mile health facilities with

highly efficient medical lighting and power for mobile communication and small medical devices. It is specifically designed to assist midwives and medical professionals in fetal monitoring while acting as a communication device.



The system includes a 12V, 20Ah lithium ferrous phosphate battery, four high-efficiency LED lights for medical task lighting, two 12V DC accessory (lighter) sockets, two USB ports, and two expansion ports to allow for optional accessories or additional lights.

## The Impact

With the installation of 5 solar suitcases, 12,000 mothers and new-borns will gain access to better maternal healthcare in 5 years.

The project also created jobs and helped reduce carbon emissions by 40 tons per year.



## Case Study

Eve Nabuwanuka, a 31-year-old registered midwife, works in Minister's Village of Ntinda, Kampala Uganda. "I love working with new mothers and babies", says Eve. It was her love for postnatal care that inspired her to study midwifery at a nearby school in Jinja.

Her struggles started when she was appointed as a midwife at Buikwe Health Centre in 2016. Poor infrastructure, limited supply of medications, insufficient delivery instruments and no grid electricity made her work difficult.

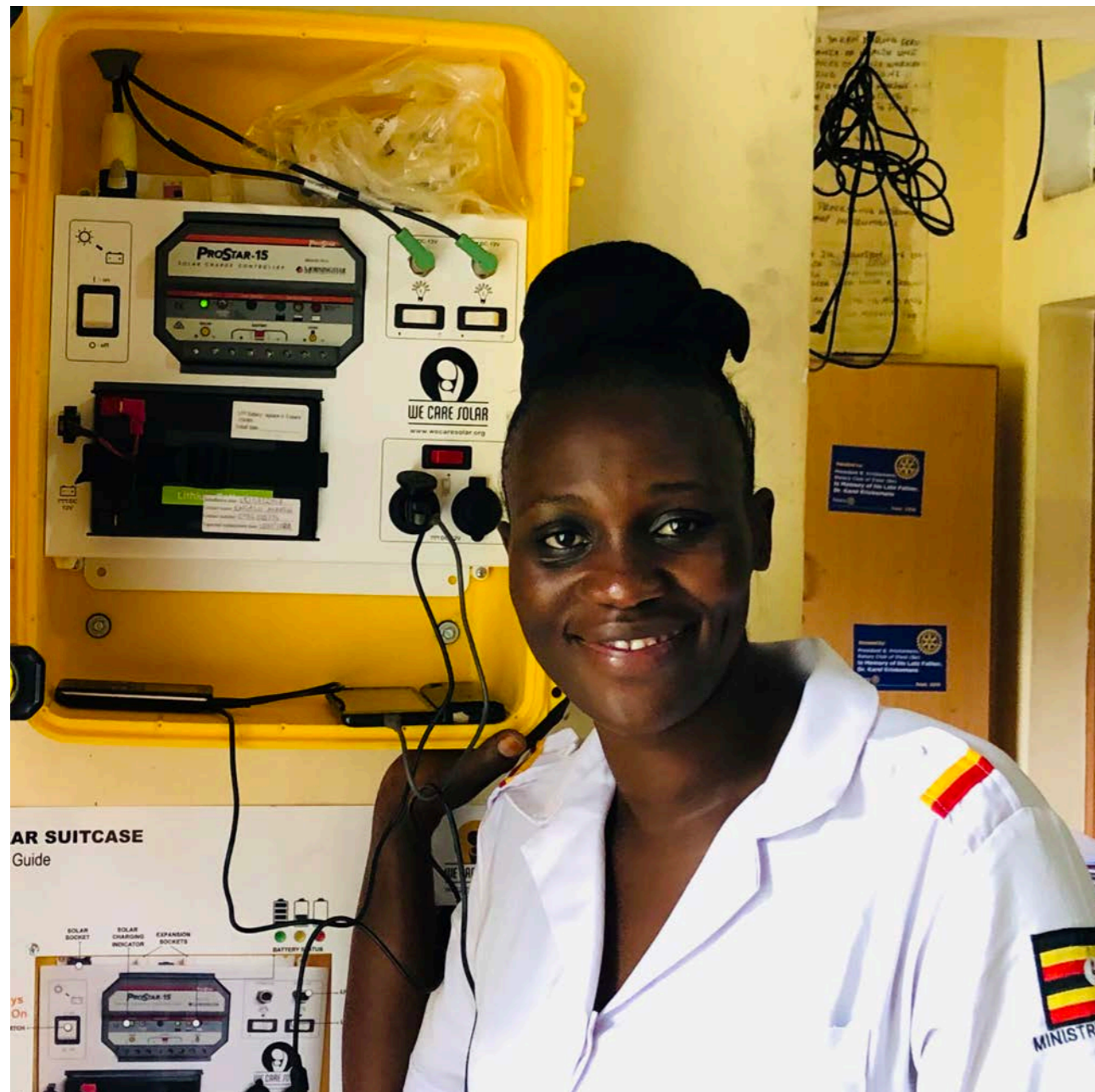
Relying on the only source of light, paraffin candles—a small oil-based lantern comprised of a can, oil and a wick, night-time deliveries were particularly challenging. Having to hold her cell phone in her mouth for light, in the absence of an assistant to hold the candle, conducting a delivery became frustrating and disappointing. She shares, "You cannot meet your own expectations. You are forced to refer a patient to another facility just because of lack of light. You end up feeling that you are not able to deliver the care you want because of the absence of light."

Recalling a night where the paraffin candle ran out in the middle of a delivery, she says “The delivery was successful but it caused a severe injury that could not be attended to in the darkness. We had to wait until morning to repair the laceration”.

The Solar Suitcase has revived the center at night. Recounting a recent delivery of a mother with pre-eclampsia, she shares that the solar lights allowed her to immediately treat the woman and deliver a healthy baby.

The health workers no longer refer routine cases to other facilities and the volume of deliveries have increased from 10 to 30 per month!

Eve at work, speaks gently to her patients and always wears a kind smile, despite the limitations at the health centre. She says, “The community are good people. When you are good to them, they are good to you.”

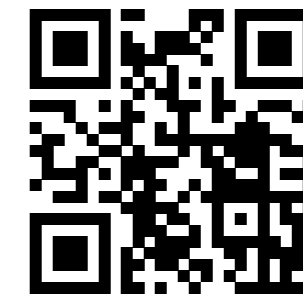


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We Care Solar promotes safe motherhood and reduces maternal mortality in developing regions by providing health workers with reliable lighting, mobile communication, and medical devices using solar electricity.

Since 2011, We Care Solar has been conducting Solar Suitcase installation programmes with dozens of partners around the world.

We Care Solar won the Zayed Sustainability Prize in 2019 in the Health category.



Scan QR code to watch the deployment video

# JORDAN DEPLOYMENT

Installation of solar streetlights at a hospital in Amman, Jordan



**Date of deployment:** 18<sup>th</sup> May 2020  
**Solution:** Solar streetlights  
**Quantity:** 51  
**Solution provider:** Sunna Design, 2018 Zayed Sustainability Prize winner in the Energy category  
**Location:** Prince Hamzah Hospital, Amman  
**Impact:** More than 3,000 people have access to reliable energy every day

## Background

Hospital lighting is a critical part of hospital construction and management. It plays an important role in the realisation of health care and treatment, rehabilitation of patients and relationships between doctors and patients. Hospitals' outdoor lighting including entrances, gardens, roads, parking and building exterior lighting does not only create a sense of security for patients who come to the hospital during the night, but also for the medical staff. Ideal illumination of the parking areas is particularly important because patients may suffer from limited movement or vision due to illness. Pedestrians and visitors are also often in a hurry.



## The Challenge

Prince Hamzah Hospital, established in 2006, is one of the largest government hospitals in Amman, Jordan. The hospital is a key pillar in Jordan's public healthcare sector and is playing an important role in treating the largest number of COVID-19 patients in the country. Prince Hamzah Hospital is also administering the vaccine trials for COVID-19 under the supervision of the Ministry of Health.

## The Solution

The iSSL+ solar streetlight from Sunna Design is a reliable and robust stand-alone solar lighting solution, particularly suitable for pedestrian, cycle and parking

The hospital provides accommodation for nurses adjacent to the car park, which is completely dark during the night. The existing streetlights had not been working for the last 12 years and complaints had been raised about this regularly by the nurses and medical staff, who did not feel safe when they were on call at odd hours.

lanes. This innovative product offers a very simple and fast installation with unmatched performance and connected services such as SunnAPP.



### FRAMELESS SOLAR PANELS

They convert solar energy into electricity and do not accumulate dust.

### INNOVATIVE NiMH BATTERY

The battery stores the electricity produced during the day and powers the LED module at night.

### SMART LIGHTING PROGRAM

The lighting program is fully user-configurable via the SunnAPP.

### SMART IN-BUILT ELECTRONIC WITH SUNNACORE

Smart energy management systems use patented algorithms to enhance a battery's life cycle. This system also includes Bluetooth as a feature.

### HIGH POWERED LED MODULE

Sunna Design LED modules are particularly powerful and with the best lumen/Watt performance on the market.

## The Impact

With the installation at Prince Hamzah Hospital, the high-performance, energy-efficient LED solar lights are providing sustainable lighting and enhancing the safety of the area for more than 3,000 people and more than 100 medical staff, on a daily basis.



## Case Study

Sunna Design installed 51 solar lights at Prince Hamzah hospital in May 2020, which coincided with the holy month of Ramadan. The installation came at a time when medical staff at Prince Hamzah Hospital took on a critical role in combatting COVID-19. At the time of installation, the hospital was

tasked with handling the largest number of coronavirus cases in the country, adding pressure to its operations and staff body and requiring the rapid optimisation of essential services and utilities such as lighting.

Suad Nayef, a senior Engineer and Director of Services at Prince Hamzah Hospital and one of the initiative's direct beneficiaries, highlighted the various benefits of the deployment to the facility and its staff, and the positive change it has incurred since its installation at the end of Ramadan 2020.

Eng. Nayef said: "The solar lighting solutions are distributed across a number of key outdoor facilities of our hospital including entrances, walkways and courtyards. This tackled the challenge of having several dark areas in the vicinity which inconvenienced our medical staff and visitors."

Eng. Nayef continued, "The 20by2020 solutions were presented to the hospital shortly after we began dealing with the pandemic and because we are located in a

strategic area of Jordan, we were in charge of receiving and treating coronavirus patients from central and southern regions of the country."

Dr. Abdul Razaq Al Khashman, General Manager of Prince Hamzah Hospital said: "We are confident that the solar streetlights by the 20by2020 initiative will complement and further optimise the efficiencies of Prince Hamza Hospital's advanced capabilities, by providing enhanced lighting to many of our valued staff body to support their daily work and commute to and from their residences." As a result of the deployment, more than 100 medical staff, and more than 3,000 people who visit the hospital every day are benefiting from effective street lighting in the area.



## About Sunna Design

Sunna Design manufactures and deploys smart solar solutions, fully connected and powered by renewable energy, to build tomorrow's cities, territories and rural environments sustainably.

To date, Sunna Design has filed 14 patents for breakthrough innovations, and have thus taken a compelling leading position in this sector.

The company's unique know-how revolves around the complete mastery of technologies

for solar energy generation, storage and management; of digital, and most importantly of their effective integration within high quality 'Plug and Play' industrial applications.

All their solutions are fully connected and digital, allowing innovative services to be developed and IoT (Internet of Things) applications to be designed on demand and integrated into custom devices.

Sunna Design won the Zayed Sustainability Prize in 2018 in the Energy category.



Scan QR code to watch the deployment video

# EGYPT DEPLOYMENT

Installation of solar streetlights at a village in Egypt



**Date of deployment:** 28<sup>th</sup> June 2020  
**Solution:** Solar streetlights  
**Quantity:** 55  
**Solution provider:** Sunna Design, 2018 winner in the Energy category  
**Location:** Habisha Village, Asyut Governorate, Egypt  
**Impact:** More than 3,500 people have access to reliable energy every day

## Background

Egypt is the most populous country in North Africa and the Arab region and home to one of the fastest-growing populations globally. The rapidly growing number of inhabitants has led to an accelerated increase in energy demand, putting a strain on the country's domestic energy resources (IRENA). Providing access to affordable, reliable, sustainable, and modern energy is the seventh Sustainable Development Goal. The New Urban Agenda also commits to the provision of inclusive and safe streets that are free from crime and violence, including gender-based violence. Solar-powered streetlights can contribute to these goals by increasing the electricity supply, improving safety both in urban and rural areas and protecting the environment.



## The Challenge

In developing countries, poverty and rapid urbanisation are putting pressure on municipal authorities to improve basic public service provision for urban populations, especially in informal settlements. One area of public service provision where there is a clear need, and potential for improvement is street lighting. Street lighting plays a crucial role in public safety, especially for women, and the promotion of inclusive social and economic development.

At present, basic public services such as street lighting are lacking in rural areas of Egypt. A small improvement in street lighting can lead to big gains in terms of reducing accidents and crime rates, alongside increasing economic activity on the streets. The potential co-benefits for social cohesion and community empowerment are also considerable.

Habisha village in Asyut Governorate of Egypt lacked streetlights that affected the livelihoods of local residents and their businesses.



## The Solution

The iSSL+ solar streetlight from Sunna Design is a reliable and robust stand-alone solar lighting solution, particularly suitable for pedestrian, cycle, and parking

lanes. This innovative product offers a very simple and fast installation with unmatched performance and connected services such as SunnAPP.



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### FRAMELESS SOLAR PANELS

They convert solar energy into electricity and do not accumulate dust.

## The Impact

With the aim to improve standards of living and create a host of new prospects for residents of the community, more than 50 high-performance energy-efficient LED lights were installed in the Habisha village, Asyut Governorate. The lights are benefiting over 3,500 people every day.

Improved street safety will support a wide range of social and economic activities. Since the lighting is installed on the main road of the Habisha village, accidents at night will be reduced which helps address congestion

and air pollution. Better lighting will enable street traders to work for longer. Better street lighting at night will also help reduce crime rates, thereby making the community more appealing and helping to make pedestrians feel safe. This is especially important for women, whose safety and wellbeing have been directly linked to the level of lighting on the streets. Female street vendors in particular benefit because they depend on the use of otherwise unsafe public spaces for their livelihoods.

## Case Study

Solar streetlights were installed on the main street in the heart of the village, which has houses on both sides, and serves as the only entry and exit route for the whole community. Essential shops in the area, such as the local supermarket, have already begun reaping the commercial benefits of greater illumination. The new lights allow longer opening hours with customers now able to enjoy greater personal security after dark. Furthermore, children now can feel safe when travelling home in the evenings, allowing the youth to use the time to study later, leading to longer term educational benefits.

Similarly, with no playground in the village, the children can now entertain themselves and each other in the street, which is significantly less dangerous thanks to the

sustainable lighting. The social benefits are also true of adults in the village with more time for community interactions, made possible by the lights.

Nashaat Nady, a mechanic and oil shop owner, was able to extend his operating hours, and has since seen an uptake in his business as he is now able to open his shop to 11pm instead of 6pm, which was the norm before the streetlight installation.

Nermine Ratib, a nurse at Habisha's local medical clinic expressed her joy at the fact that she can now easily go out at night to treat patients, save lives and support her community while feeling much safer as a woman at late hours of the day.

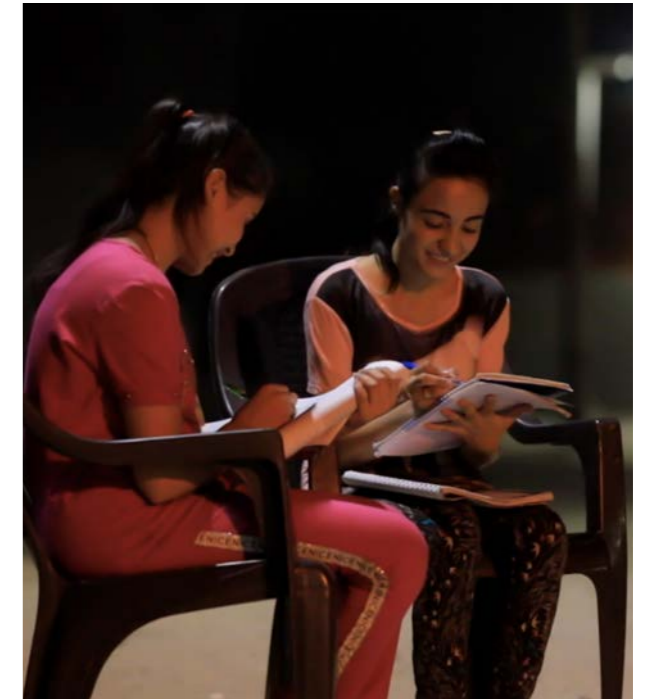


## Testimonials

Mariem Ibrahim was excited by the fact that she can now study in front of her house, under the lighting from the poles, as they provide sufficient illumination 24-hours a day, allowing her to better structure her day and dedicate more time to studying at her convenience.

“Studying under proper lighting has been a wonderful experience, as I had to rely on using candles in the past, which was both inconvenient and inefficient, however the 20by2020 initiative has truly made a change to our daily lives.”

**Mariem Ibrahim,**  
**Student from Habisha village**



“The new lighting by the 20by2020 initiative motivated me and my staff to work harder and keep the store open for longer hours, creating better options for the local community for their daily necessities, at various times of the day.”

**Fawzy Gerges,**  
**Owner of a grocery store in Habisha village**

## About Sunna Design

Sunna Design manufactures and deploys smart solar solutions, fully connected and powered by renewable energy, to build tomorrow's cities, territories and rural environments sustainably.

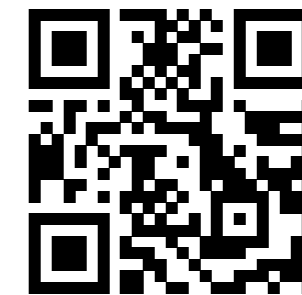
To date, Sunna Design has filed 14 patents for breakthrough innovations, and have thus taken a compelling leading position in this sector.

The company's unique know-how revolves around the complete mastery of technologies for solar energy generation, storage

and management; of digital, and most importantly of their effective integration within high quality 'Plug and Play' industrial applications.

All their solutions are fully connected and digital, allowing innovative services to be developed and IoT (Internet of Things) applications to be designed on demand and integrated into custom devices.

Sunna Design won the Zayed Sustainability in 2018 in the Energy category.



Scan QR code to  
watch the deployment video

## ZAYED SUSTAINABILITY PRIZE

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