

Project Update Report Nov 2019 – Dec 2020





وق أبوظ بي للتـــَـــميــــــة ABU DHABI FUND FOR DEVELOI











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## **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 eight countries – Nepal, Uganda, Tanzania, Jordan, Egypt, Cambodia, Madagascar and Indonesia.



(Act Together) Association

#### INDONESIA

d.light & Kopernik Solar home systems Energy

Dec 2020

## **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, Majid Al Futtaim and BNP Paribas, 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." "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."

"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 selfreliance and prosperity in communities worldwide."

**H.E. Dr. Sultan Al Jaber** UAE Minister of Industry and Advanced Technology and Director General of the Zayed Sustainability Prize H.E. Ahmed Al SayeghUAE Minister of State and Chairmanof Abu Dhabi Global Market

H.E Mohammed Saif Al Suwaidi

Director General of Abu Dhabi Fund for Development



"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 REPORTS** 7 COUNTRIES

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## **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

55.6 million-out of which 9.7 million are residents live in informal settlements with children under the age of five. 34% and 16% inadequate sanitation facilities leading to of these children suffer from stunting and frequent outbreaks of diarrhoea and cholera are underweight respectively (USAID).

Salaam and it is projected to be home to susceptible to various infections. approximately 1 million people by 2030 (World Population Review, 2020).

Tanzania has a population of approximately Three-quarters of the congested city's in communities. Malnutrition within local communities lowers immunity amongst Tanzania's most populous city is Dar es its members and makes them regularly



In addition to the high rates of children who suffer from growth stunting in Tanzania, 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 higher numbers of stunted children and of the children suffering from severe acute malnutrition in Tanzania.

High rates of anaemia and low body mass index among adolescent girls and pregnant there is an overlap with other nutritional women are also causes of concern. Investing challenges, including anaemia in women 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 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).



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 fortification machines are currently installed vulnerable to malnutrition by equipping and in flour mills, across five East African incentivising small-scale, local millers to countries. fortify their flour with innovative technology, adding micronutrients that are scientifically Sanku won the Zayed Sustainability Prize in proven to improve health and vitality in the 2019 in the Food category. food Africans eat the most. 150 of their





https://youtu.be/vzi8k I6oDY

Scan QR code or click the link to watch the deployment video



## **NEPAL DEPLOYMENT**

Installation of solar suitcases in health clinics



Date of deployment: Solution: Quantity: Solution provider: Location: Impact:

28<sup>th</sup> Nov 2019 Solar Suitcase 10 We Care Solar, 2019 winner in the Health category Bhojpur, Ilam, and Shankhuwasabha 6,000 mothers and new-borns will gain access to better healthcare in 5 years

### Background

million and suffers from a severe electricity improve the maternal and child health in supply crisis. Electricity is only available in remote areas of Nepal that lacked proper urban areas and thereby, most rural areas health care due to lack of electricity. suffer from various challenges due to power shortages. Long power outages affect the health sector adversely throughout the country, leaving people in critical situations.

Nepal has a population of approximately 28 The objective of this deployment was to





reducing child mortality and improving cannot safely provide essential healthcare maternal health. From 2000 to 2017, the and infection control. They are compromised maternal mortality rate decreased from 548 to 186 per 100,000 live births (World Bank). treat, conduct essential medical procedures, However maternal and neonatal mortality and life-saving obstetric care. Health clinics, remains one of the biggest public health maternity wards, surgery blocks, medical problems in the country, mostly due to lack warehouses and laboratories rely on of skilled birth attendants and the absence electricity to refrigerate medicines, power of emergency services and equipment in lights, sterilise equipment and operate rural health centers. Obstetric emergencies life-saving medical devices. Intermittent or require prompt, appropriate and reliable unreliable power sources put lives at risk. 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.

Nepal has made significant progress in Without electric lights, health workers in their ability to properly examine, diagnose,



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.



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#### **The Solution**

health facilities in Bhojpur, Ilam, and for mobile communication and small medical Shankhuwasabha.

robust, easy-to-use solar electric system device. that provides last-mile health facilities with

Solar suitcases were installed in 10 highly-efficient medical lighting and power devices. It is specifically designed to assist midwives and medical professionals in fetal Solar suitcase by 'We care Solar' is a monitoring while acting as a communication

#### **Case Study**

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 of light while conducting the childbirths, a is largely ineffective and unhygienic.

Solar Suitcases are powerful enough to light services to the community." 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 number of women seeking ANC and delivery for suturing or moving outside of the facility. Phone charger ensure that midwives can call suitcases are one of the contributing factors. 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 a much better position to provide effective who works at the Walankha Health Post, services to the community."

Many of the remote villages in Nepal either 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 mobile phones and oil lamps as their source contributing factors." Along with the Solar Suitcase, the 20by2020 initiative supported rather simple and traditional solution which the renovation of the birth centre and provided equipment and training. "We are in a much better position to provide effective

> "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 services is increasing day by day and solar Along with 20by2020 initiative supported birthing centre renovation, equipment support, and training programs, we are in



#### **Testimonials**

Rita Khatrai, 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 Chuiri 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 Chuiri Dada Health Post, Khotang

### **About We Care Solar**

and reduces maternal mortality in developing the world. regions by providing health workers with reliable lighting, mobile communication, and We Care Solar won the Zayed Sustainability medical devices using solar electricity.

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

We Care Solar promotes safe motherhood programmes with dozens of partners around

Prize in 2019 in the Health category.







https://youtu.be/PE8frNLPGLk

Scan QR code or click the link to watch the deployment video





## **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

at the national level with only 8% of the improve maternal and child health in remote rural population having access to electricity. areas of Uganda that lacked proper health Despite an increase in grid electricity access care due to lack of electricity. 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.

Uganda's electricity access stands at 45% The objective of this deployment was to





Every day, approximately 830 women die from and treatment more difficult and dangerous preventable causes related to pregnancy and childbirth, according to the World Health lighting increases the risk of infection 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

for mothers and children. Lack of sufficient 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

facilities in Minister's Village of Ntinda, Kampala, Uganda.

robust, easy-to-use solar electric system device. that provides last-mile health facilities with

Solar suitcases were installed in 10 health 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 Solar suitcase by 'We care Solar' is a monitoring while acting as a communication



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. The project also created jobs and helped 12,000 mothers and new-borns will gain reduce carbon emissions by 40 tons per year. access to better maternal healthcare in 5 years.



#### **Case Study**

Eve Nabuwanuka, a 31-year-old registered Relying on the only source of light, paraffin candles-asmall oil-based lantern comprised midwife, works in Minister's Village of Ntinda, Kampala Uganda. "I love working of a can, oil and a wick, night-time deliveries with new mothers and babies", says Eve. It were particularly challenging. Having to hold was her love for postnatal care that inspired her cell phone in her mouth for light, in the her to study midwifery at a nearby school in absence of an assistant to hold the candle, Jinja. conducting a delivery became frustrating Her struggles started when she was and disappointing. She shares, "You cannot appointed as a midwife at Buikwe Health meet your own expectations. You are forced Centre in 2016. Poor infrastructure, limited to refer a patient to another facility just supply of medications, insufficient delivery because of lack of light. You end up feeling instruments and no grid electricity made her that you are not able to deliver the care you work difficult.

want because of the absence of light."

Recalling a night where the paraffin candle The health workers no longer refer routine ran out in the middle of a delivery, she says cases to other facilities and the volume of "The delivery was successful but it caused a deliveries have increased from 10 to 30 per severe injury that could not be attended to in month! the darkness. We had to wait until morning to repair the laceration".

at night. Recounting a recent delivery of a mother with pre-eclampsia, she shares that are good to them, they are good to you." the solar lights allowed her to immediately treat the woman and deliver a healthy baby.

Eve at work, speaks gently to her patients and always wears a kind smile, despite the The Solar Suitcase has revived the center limitations at the health centre. She says, "The community are good people. When you



### **About We Care Solar**

We Care Solar promotes safe motherhood Since 2011, We Care Solar has been and reduces maternal mortality in developing conducting Solar Suitcase installation regions by providing health workers with programmes with dozens of partners around reliable lighting, mobile communication, and the world. medical devices using solar electricity.





https://youtu.be/PsO3jHY8nVU

Scan QR code or click the link to watch the deployment video

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



## **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

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

Hospital lighting is a critical part of hospital create a sense of security for patients who





Prince Hamzah Hospital, established in 2006, The hospital provides accommodation for is one of the largest government hospitals nurses adjacent to the car park, which in Amman, Jordan. The hospital is a key is completely dark during the night. The pillar in Jordan's public healthcare sector existing streetlights had not been working and is playing an important role in treating for the last 12 years and complaints had been the largest number of COVID-19 patients in raised about this regularly by the nurses and the country. Prince Hamzah Hospital is also administering the vaccine trials for COVID-19 they were on call at odd hours. under the supervision of the Ministry of Health.

medical staff, who did not feel safe when

### **The Solution**

Design is a reliable and robust stand- simple and fast installation with unmatched alone solar lighting solution, particularly performance and connected services such suitable for pedestrian, cycle and parking as SunnAPP.

The iSSL+ solar streetlight from Sunna lanes. This innovative product offers a very



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



### **Case Study**

Sunna Design installed 51 solar lights at tasked with handling the largest number Prince Hamzah hospital in May 2020, which of coronavirus cases in the country, adding coincided with the holy month of Ramadan. pressure to its operations and staff body and The installation came at a time when medical requiring the rapid optimisation of essential staff at Prince Hamzah Hospital took on services and utilities such as lighting. a critical role in combatting COVID-19. At the time of installation, the hospital was

of Services at Prince Hamzah Hospital and one of the initiative's direct beneficiaries, highlighted the various benefits of the country." 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

Suad Nayef, a senior Engineer and Director strategic area of Jordan, we were in charge of receiving and treating coronavirus patients from central and southern regions of the

> Dr. Abdul Razag 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 for solar energy generation, storage smart solar solutions, fully connected and and management; of digital, and most powered by renewable energy, to build importantly of their effective integration tomorrow's cities, territories and rural within high quality 'Plug and Play' industrial environments sustainably. applications.

To date, Sunna Design has filed 14 patents All their solutions are fully connected and for breakthrough innovations, and have thus digital, allowing innovative services to be taken a compelling leading position in this developed and IoT (Internet of Things) sector. applications to be designed on demand and integrated into custom devices.

The company's unique know-how revolves around the complete mastery of technologies Prize in 2018 in the Energy category.





https://youtu.be/1fgjSAOqolA

Sunna Design won the Zayed Sustainability



## EGYPT DEPLOYMENT

Installation of solar streetlights at a village in Egypt



Date of deployment: Solution: Quantity: Solution provider: Location: Impact:

28<sup>th</sup> June 2020 Solar streetlights 55 Sunna Design, 2018 winner in the Energy category Habisha Village, Asyut Governorate, Egypt More than 3,500 people have access to reliable energy every day

#### Background

Africa and the Arab region and home to one sustainable, and modern energy is the of the fastest-growing populations globally. seventh Sustainable Development Goal. The rapidly growing number of inhabitants The New Urban Agenda also commits to the has led to an accelerated increase in energy demand, putting a strain on the country's are free from crime and violence, including domestic energy resources (IRENA).

Egypt is the most populous country in North Providing access to affordable, reliable, provision of inclusive and safe streets that 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.

3,500+ people have access to reliable energy every day







urbanisation are putting pressure on street lighting are lacking in rural areas of municipal authorities to improve basic public Egypt. A small improvement in street lighting service provision for urban populations, can lead to big gains in terms of reducing especially in informal settlements. One area accidents and crime rates, alongside of public service provision where there is a increasing economic activity on the streets. clear need, and potential for improvement is The potential co-benefits for social cohesion street lighting. Street lighting plays a crucial and community empowerment are also role in public safety, especially for women, considerable. and the promotion of inclusive social and economic development.

In developing countries, poverty and rapid At present, basic public services such as

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 lanes. This innovative product offers a very Design is a reliable and robust stand- simple and fast installation with unmatched alone solar lighting solution, particularly performance and connected services such suitable for pedestrian, cycle, and parking as SunnAPP.



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 air pollution. Better lighting will enable and create a host of new prospects for street traders to work for longer. Better street residents of the community, more than 50 lighting at night will also help reduce crime high-performance energy-efficient LED rates, thereby making the community more lights were installed in the Habisha village, appealing and helping to make pedestrians Asyut Governorate. The lights are benefiting feel safe. This is especially important for over 3,500 people every day. women, whose safety and wellbeing have been directly linked to the level of lighting Improved street safety will support a wide on the streets. Female street vendors in range of social and economic activities. Since particular benefit because they depend on the lighting is installed on the main road of the use of otherwise unsafe public spaces for their livelihoods. the Habisha village, accidents at night will

be reduced which helps address congestion

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 userconfigurable 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.

#### **Case Study**

street in the heart of the village, which has entry and exit route for the whole community. Essential shops in the area, such as the local supermarket, have already begun reaping the Nashaat Nady, a mechanic and oil shop commercial benefits of greater illumination. The new lights allow longer opening hours hours, and has since seen an uptake in his with customers now able to enjoy greater personal security after dark. Furthermore, to 11pm instead of 6pm, which was the norm children now can feel safe when travelling home in the evenings, allowing the youth to use the time to study later, leading to longer Nermine Ratib, a nurse at Habisha's local term educational benefits.

Similarly, with no playground in the village, and each other in the street, which is woman at late hours of the day. significantly less dangerous thanks to the

Solar streetlights were installed on the main sustainable lighting. The social benefits are also true of adults in the village with more houses on both sides, and serves as the only time for community interactions, made possible by the lights.

> owner, was able to extend his operating business as he is now able to open his shop before the streetlight installation.

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 the children can now entertain themselves community while feeling much safer as a

#### **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**

tomorrow's cities, territories and rural applications. environments sustainably.

sector.

around the complete mastery of technologies in 2018 in the Energy category. for solar energy generation, storage

Sunna Design manufactures and deploys and management; of digital, and most smart solar solutions, fully connected and importantly of their effective integration powered by renewable energy, to build within high quality 'Plug and Play' industrial

All their solutions are fully connected and To date, Sunna Design has filed 14 patents digital, allowing innovative services to be for breakthrough innovations, and have thus developed and IoT (Internet of Things) taken a compelling leading position in this applications to be designed on demand and integrated into custom devices.

The company's unique know-how revolves Sunna Design won the Zayed Sustainability







https://youtu.be/SGSsb8MC3Vw

Scan QR code or click the link to watch the deployment video



## **CAMBODIA DEPLOYMENT**

Installation of water fountains for communities at the **Tonle Sap River** 



Date of deployment: Solution: Quantity: Solution provider: Location: Impact:

13<sup>th</sup> Sep 2020 Water fountains 5

Agir Ensemble Association, 2019 Prize finalist in the Water category Chhnok Trou, Kampong Phrah and Ses Salab villages 4,400 people have access to clean drinking water every day

#### Background

lack access to safe water, and 6 million sanitation, water and hand washing facilities lack access to improved sanitation. With are a barrier to children attending school and approximately 77% of Cambodians living in performing well, especially girls. Children rural areas, poor access to safe water and sanitation disproportionately affects its rural to go to school if there are no accessible communities (water.org).

More than 3 million people in Cambodia There is growing evidence that inadequate with disabilities find it particularly difficult bathrooms, or if they are otherwise inadequate (UNICEF Country Program Report 2019 - 2023, Cambodia).



4,400

----

people have access to clean drinking water every day

obtain their water supply from the lake, are often reported as having insufficient which is contaminated from municipal water, sanitation, and hygiene amenities, waste and public defecation, for laundry, with only 50% continually having sufficient dishes, bathing and even cooking. This water for their needs, according to reports results in waterborne diseases and other by the National Institute of Public Health. health issues such as diarrhea and cholera.

People living at the Tonle Sap Lake primarily Similarly, Cambodian health care facilities



### **The Solution**

a village, along with the Chhnok Trou School and clinic, benefiting the residents of the Chhnok Trou, Kampong Phrah and Ses Salab villages.

The 'Safe Water Cube' is a water purification fountain system that utilises water filtration technologies to provide immediate access to cleaner and safer drinking water to people located in remote villages of developing countries.

#### FILLING BY 10 M PIPE



The initiative installed five water fountains at The 1.2m3 stainless steel container has five different filters including sand and carbon. It makes all surface water, even muddy, drinkable and destroys "all the viruses and bacteria responsible for diarrhea, dysentery, cholera and hepatitis, without destroying the minerals in the water". The container also purifies up to 1,000 liters per hour, without electrical energy.



#### The Impact

With the installation of 5 Safe Water Cubes, Over time it is intended that this access will a total of 4,400 people will have access to clean drinking water every day.

Not only does this installation help residents avoid many of the waterborne diseases and other health issues stemming from dirty water, it offers new opportunities for better sanitation and hygiene, an essential requirement given the importance of handwashing in preventing the spread of coronavirus.

improve the outlooks for residents through better hydration and the prevention of illness, which has been statistically proven to have significant, positive effects on the overall health and wellbeing of communities alongside individual growth and development.



### **Case Study**

San Sophy is a young 23-year-old mother "We did not even have enough money to buy and is three months pregnant with another 20-liter bottles of filtered water at 5,000 riels child. (equivalent to \$1.25)", explains Sophy.

She and her husband were both born on the "The only option we had in the last few Tonle Sap Lake in the floating dispensary of months was to boil water from the lake or Doun Sdaeng. They have known no other life heat the container under sunlight to kill any than on the water. One of the challenges that bacteria. But these practices are not enough they have faced for years is the lack of clean to purify water. The water still remained drinking water. Sophy says, "My husband is a contaminated." fisherman and I move around in the boat that we own to conduct daily household chores." Since the installation of the fountain at the

The ongoing pandemic has adversely affected frequently to get herself examined and to Sophy and many families like her. Unlike get drinking water for her entire family and before, there are no tourists visiting the neighbours. floating villages anymore. Selling indigenous handicrafts earned the family enough money She says delightedly, "I am so thankful to to buy everyday essentials, including filtered have access to this fountain as I was very water. With that source of livelihood gone, worried about my health from drinking lake the family experienced and lived through water. Today, I don't get sick anymore and my financial difficulties, surviving only on her stomach cramps have stopped". husband's earnings.



local health clinic, Sophy now goes there

### **About Agir Ensemble Association**

France-based non-profit organisation with a fountains had been installed in 12 countries purpose to promote access to drinking water, (India, Sri Lanka, Benin, Madagascar, health and the social link of the regions of Cameroon, Senegal, Haiti, Morocco, Mexico, the world with little or no drinking water.

Primarily focused on schools and villages, clean drinking water. the key objectives of the association is to set up Safe Water Cube fountains and train Agir Ensemble Association is the 2019 Zayed people to use them, manage logistics, train Sustainability Prize finalist under the 'Water' volunteers, and raise awareness on the category. importance of drinking water.

Agir Ensemble Association is a leading By the end of 2018, 180 Safe Water Cube Cambodia, Togo and the Ivory Coast), providing 180,000 people with access to







https://youtu.be/SGSsb8MC3Vw

Scan QR code or click the link to watch the deployment video



## MADAGASCAR DEPLOYMENT

5

Installation of water filtration solutions across five rural areas of Madagascar



Date of deployment: Solution: Quantity: Solution provider: Location: Impact:

30<sup>th</sup> Nov 2020 Safe Water Cube Fountains

Agir Ensemble Association, 2019 Prize finalist in the Water category Antsirabe, Vohitrarivo, Ambohijafy and Ambohijafy Talata Andraikiba 8,500 people have access to clean water for drinking, sanitation, and household use, everyday

#### Background

Fund (UNICEF), various parts of Madagascar availability and access to safe water. Families including its southern regions in particular, often resort to negative coping strategies have the country's lowest water supply to the detriment of their children - such coverage and are highly vulnerable to as having to discontinue their children's drought. Access to potable drinking water is education to be able to buy water at exorbitant a major challenge for the local population.

Chronic droughts lead to annual emergency water. appeals to save the lives of malnourished adults and children.

According to the United Nations Children's Yet the root cause of this situation is the prices, which at peak times can reach up to \$0.66 US cents for a 20 liters jerry can of





## 8,500

and household use,

Around the world, there are more than two billion people who do not have access to drinking water and more than 2.6 million and nearly half of all households live people die because of the water they drink, according to the World Health Organisation. In schools, 80% of children's illnesses are caused by the water they drink.

conditions of the people in the villages are very complicated. Unhealthy water causes diseases that prevent children from going to school and adults from going to work. People of groundwater and the high level of salinity. must walk for miles to collect drinking water. These people earn less than four dollars a day. Every year, millions of people migrate to the cities to try to find a better life.

In Madagascar alone, more than 58% of people lack access to safe drinking water without sanitation facilities, according to international estimates.

UNICEF reports, that in rural areas, only 36% of households utilise improved water Without clean drinking water, the living facilities, like using borehole drilling (a deep, narrow hole made in the ground, especially to locate water); however, this method has a very low success rate due to the scarcity



#### **The Solution**

The Safe Water Cube fountain by the Agir Ensemble Association, the 2019 Zayed Sustainability Prize finalist under the 'Water' category is a technological innovation that provides immediate access to drinking water through a fountain and its system by ultrafiltration - non-chemical - of surface water and wells, removing all viruses and bacteria.

They installed fountains in isolated villages in developing countries, with solutions rolled out in 20 countries around the world.

In Madagascar, four fountains have been installed in schools including St. Joseph School in Antsirabe and schools in Vohitrarivo, Ambohijafy and Ambohijafy Talata Andraikiba that are also accessible to local village residents. In addition, a fountain has been setup for the patients and healthcare workers at a hospital in Andraikiba.

When a Safe Water Cube fountain is installed in a village, the entire population has access to drinking water. Thanks to it, illnesses decrease considerably, and children can go back to school. The installation of a Safe Water Cube fountain at school reduces children absenteeism in schools by 85% and increases the number of children attending school by 25%. For each installed fountain in the villages, two or three people are trained

No electricity No breakdowns No electronic

(at least one man and one woman) to be responsible for the use and maintenance of the fountain with one designated fountain technical manager for the entire country.

The Safe Water Cube fountain is compact (Diameter: 70cm; Height: 120cm; Weight: 56kg), robust, mobile and allows all surface and well water to be made potable thanks to its five steps of mechanical filtration. Its 0.02micron ceramic filtration prevents bacteria and viruses from passing through. It makes all surface water (river water, ponds, wells, brackish water) potable and makes 1,000 liters of water per hour potable, which corresponds to the needs of approximately 1,000 people.



Easy to maintain Can be used by everyone

These aspects are essential and constitute

- together with the solidity of the structure -- the originality of the Safe Water Cube fountain compared to other existing standalone water purification systems.

Filtration is performed according to the following sequence:

- Screening at 500 microns at the tank inlet and 100 microns on the pumping strainer.
- 60micron filtration by plastic filter. -
- 25micron filtration by textile filter.
- 5micron filtration by textile filter

#### The Impact

8,500 village residents, hospital patients and medical workers in Madagascar's Vakinankaratra central region can now:

- Avoid many of the waterborne diseases and other health issues stemming from dirty water
- Have new opportunities for better hygiene, an essential requirement given t he importance of handwashing in preventing the spread of COVID-19.
- Support children to attend continuous schooling with 5 Safe Water Cube fountains installed in 5 schools and the impact includes:
  - Champfleury: (387 children) Talata Andraikiba (600 children), Saint Jean Andraikiba (1217 children), Vohitrarivo (725 children). Ambalavato (1300 children).

Additional benefits include:

• Enhanced options for income generating activities for adults with women relieved (only consumable of the device);

Ultrafiltration to 0.02 micron by a ceramic filter.

The performance indicators are:

- The volume of water (in liters) filtered in relation to the quantity of population
- The number of cleanings performed in relation to the type of water and volume of water filtered
- Absenteeism of children in schools
- The number of people coming to the clinics for water-related illnesses.

of the chore of fetching water, freeing up their time and reducing associated risks.

- Reduction in resource depletion through the water fountain's ability to make any type of water present in the villages' potable.
- The fountain works without electricity and without chemical products. It does not emit any greenhouse gases and does not pollute the environment.



### **Case Study**

Voahanginirina Raivomanana is a 42-yearold mother.

a local clinic as her son-in-law cannot afford of clean water." a day off with his low wage salary.

It is the same story for all mothers-to-be in from her own home to the clinic, not only the rural municipality of Andraikiba - you for her family, but also for the healthcare must give birth either at a clinic or at home personnel to use. with a traditional midwife.

Since the installation of the water fountain by A relative of Voahanginirina says: "We chose the 20by2020 initiative, anyone going to the to go to St Claire D'Assise clinic in case of clinic would now have access to clean water. any complications since it is her first child. I Voahanginirina says: "I was so relieved that did not want her to give birth at home." we now have a fountain in the clinic. I was afraid the water I brought was not enough and I would have to buy bottled water which is too expensive for me."



"It is already hard enough for them to find a safe place to give birth, but wherever they She accompanied her pregnant daughter to would like to go, there is no reliable source

Voahanginirina had to bring boiled water

### **About Agir Ensemble Association**

France-based non-profit organisation with a fountains had been installed in 12 countries purpose to promote access to drinking water, (India, Sri Lanka, Benin, Madagascar, health and the social link of the regions of Cameroon, Senegal, Haiti, Morocco, Mexico, the world with little or no drinking water.

Primarily focused on schools and villages, clean drinking water. the key objectives of the association is to set up Safe Water Cube fountains and train Agir Ensemble Association is the 2019 Zayed people to use them, manage logistics, train Sustainability Prize finalist under the 'Water' volunteers, and raise awareness on the category. importance of drinking water.

Agir Ensemble Association is a leading By the end of 2018, 180 Safe Water Cube Cambodia, Togo and the Ivory Coast), providing 180,000 people with access to







https://youtu.be/ObtCFxDCviY

Scan QR code or click the link to watch the deployment video



## **INDONESIA DEPLOYMENT**

The objective of this deployment is to provide more than 20,700 people from a large fishermen community with improved energy access through off-grid solar lighting.



Date of deployment: 28<sup>th</sup> Dec 2020 Solution: Distribution of solar lanterns and mobile-charging solar lanterns to fishermen communities living without access to electricity Quantity: 3,600 solar lanterns and 1,000 mobile-charging solar lanterns a collaboration between two Zayed Sustainability Prize winners; d.light, Solution provider: 2013 Zayed Sustainability Prize winner under the 'Energy' category and Kopernik, 2016 Zayed Sustainability Prize winner under the 'Energy' category Location: Pulau Laut Selatan in South Kalimantan, Indonesia Impact: More than 20,700 people from a large fishermen community have improved energy access, everyday

Background

and disconnected areas in the province of are mainly located in remote coastal areas, South Kalimantan, Indonesia. According to which poses geographical challenges in the country's Central Bureau of Statistics, terms of grid installation. As a result, local more than 48,000 people (or 23% of the communities experience various sociopopulation), lack access to electricity out economic hardships and daily risks. of a total population of 336,000 people, making it the regency with the highest rate The vast majority of these coastal of households without electricity in the communities across the Kotabaru Regency province.

Kotabaru Regency is one of the most remote The villages without access to electricity

work as fishermen and rely heavily on the sea for their income and livelihoods.





## 27,000+

access, everyday



residents, who rely on agriculture, fishing, and operating small businesses for their livelihoods, cannot perform their jobs at Local fishermen used either flashlights or night. Health centres cannot sufficiently accommodate patients in the evening and children cannot study at night, nor can key daily domestic activities.

Residentstypicallyspendmoneyonhazardous kerosene lights, lead-acid batteries, and diesel generators to provide adequate islands. lighting for nighttime activities. Kerosene lights release toxic smoke and black carbon Moreover, there is a pressing need to further as the byproducts of incomplete combustion while lead acid batteries can contaminate solid and groundwater if improperly used. technology innovation. In addition, diesel generators contain more

Due to widespread electricity shortages, than 40 toxic contaminants, which pose health and environmental risks.

mini generators to work at night which are costly and difficult to use. Common issues include running out of batteries or gasoline people perform cleaning, cooking and other in the middle of the sea and broken lamps which can be dangerous. These issues were also experienced by klotok drivers, local boats that are used as a mode of transportation for the community, particularly for crossing

> develop the coastal economy by creating a fair and transparent fisheries trade through



#### **The Solution**

d.light's S30 lantern and T200 torch are resilient, especially during the COVID-19 portable solar-powered lighting solutions pandemic. that are suitable for areas where there is a The 20by2020 deployment is improving the

lack of access to electricity. communities' social and physical wellbeing The distribution aims to allow the by lighting up households and public communities at Kotabaru study, read, cook, facilities. This is enabling local beneficiaries and work at night. With the introduction of to conduct various activities at home such these clean lighting solutions, 20by2020 aims as cooking and showering, in addition to to empower the communities to be more community-based activities at night, while



also following COVID-19 protocols at village gatherings, and village sporting events.

Moreover, the clean energy solutions are improving the communities' overall quality of life by enabling greater activities in the evening, and at least 3,300 children from various households can now study at night by using the solar lanterns.

To help stimulate the technology-led fisheries sector for the targeted communities and ensure that their needs were met, 20by2020 worked closely with Aruna, a prominent Indonesian fisheries' e-commerce platform that they collaborated with to conduct comprehensive village assessments prior to distributing the solar lanterns and torches to the communities.

#### d.light S30

The d.light S30 solar lantern is an affordable, portable lighting solution that was built for the whole family to enjoy together. When used at home, the S30's unique conical shape reflects light into every corner of a room, while it's easy-to-carry design also provides safety when walking alone at night.



Solar Panel

Portability Comfortable handle

Integrated solar panel

Battery

Brightness

Up to 12 hours per full charge

6x brighter than kerosene

#### S30 Specs

- Smart LED indicator for solar charge intensity
- Multiple-setting handle allows flexible usage.
- 3 brightness settings (Standard and High)
- High efficiency integrated solar panel
- Glow-in-the-dark button
- Weather resistant to sun and rain
- 60,000-hour life LED
- Lifetime well over 5 years (inclusive of battery)
- Maintenance-free
- Country certifications for East & West Africa (SONCAP, PVoC)
- Meets Lighting Global quality standards

#### d.light T200

The d.light T200 brings you the best of both worlds - an ambient sidelight that brightens up homes for up to 8 hours, and a superbright torch with a beam length of a kilometer that lights up people's way when outdoors. Users can also stay connected with friends and family as the T200 also charges mobiles for free via a USB port.



#### T200 Specs

- Affordable dual light and mobile charging in one device
- Wide ambient lighting
- Focused beam light for visibility up to 1 kilometer
- Four brightness settings
- Rugged high efficiency solar panel
- Weather resistant
- Mobile charger
- Long lifetime
- Maintenance-free

### The Impact



- Approximately 20,700 people have 3,312 solar lanterns to households, access to lighting in communities across the Kotabaru Regency, South Kalimantan, as follows:
- 230 solar lanterns for public facilities, fishermen in the field, with the vast majority including healthcare clinics, covering 6,900 people.





Battery Up to 8 hours per full charge.



Brightness 18x brighter than kerosen



Ambient sidelight Sidelight setting spreads ambient light for indoor use



Solar Panel



Bright torch function Torch beam reaches a distance of up to 1 kilömeter



Charges mobiles via USB port

benefiting 13,248 people, including children and students.

• 984 solar torches distributed directly to reporting a notable increase in night-time productivity.

#### **Case Study**

significant impact on more than 20,700 torch is far, which helps him see passengers District, empowering village leaders, subauthorities to ensure a smooth, effective, my fear in the dark. During COVID-19, I and safe installation and usage.

beneficiary from the Sebanti village, who so that my daily gross revenue has increased said: "I am a small fisherman who used to to around IDR 150,000 (USD 11). use flashlights to earn my wages. I could spend IDR 50,000 (USD 3) per month only to Mrs. Damri, head of the Kerasian village buy batteries. When the battery suddenly ran said: "As the village government, we out, I had to survive in the middle of the dark are grateful for this assistance through sea. Moreover, my boat usually runs aground 20by2020. Previously, our people, especially because the beach is not visible, especially those who made a living at the sea such as in the rainy season or bad weather. For fishermen and klotok drivers could only use household activities, I was previously using flashlights that were easily damaged. Now candles every day."

"Now my life has become easier. I can charge lighting for praying at night." the T200 flashlight during the day and then benefit from it at night when I venture out to the sea. With the solar powered torch, my wife and I can cook our food easily as well. I also have two children in my house and now they can study with proper lighting."

Bobi, a local boat service driver from the Kerasian Village, said: "I work as a klotok driver, or "sea taxi", to pick up guests and residents who want to cross between islands. Prior to the solar-powered lights, we used small flashlights that run on batteries. At most, the battery would last up to four days and the monthly cost was very high for me."

The 20by2020 deployment has had a Bobi added that the lighting distance of the beneficiaries in 17 villages in the Kotabaru and other ships, making it safer to work. "I am now more confident to pick up passengers district governments, and other local even at dawn because the light has lessened usually carried one passenger per day, and the fare was around IDR 50,000 (~USD 3). Sarmadian, is a fisherman and direct Now, I can carry up to three times or more,

> they can work comfortably and safely. We are also happy that our local mosque has good



Since the start of the 20by2020 deployment, found it hard to study at night because of there has been a significant impact on the weak lighting in our house. We also used students in fishermen families, with a kerosene lamps that produce black gas, and remote learning policy in place due to the it smells bad. Now, my brother and I can pandemic. There are more assignments study comfortably because the lights are when studying from home than the usual inbright and that motivates us and keeps us person classrooms, with inadequate lighting excited. After studying, I can use the solar light to help my mother fold clothes, cook, making things harder for students and parents alike. and wash the dishes in the evening."

Today, students from beneficiary villages On her part, Marda, a shop owner, and can study at night with the aid of solar headmaster of the local kindergarten in the technologies. Based on conducted surveys, Kerasian Island said: "I am a housewife who 69% of respondents stated that they are owns a shop at home and I also work as the witnessing notable improvements in their principal at the Kerasian kindergarten. The children's learning. In addition, the use solar-powered lantern makes it easier for of solar-powered lamps also significantly me to do many activities. In the past, our reduces the children's risk of respiratory shop used ordinary flashlights that hung on diseases since families previously used the wall; however, I can now sell goods easily kerosene lamps that produced toxic gas to because my shop has sufficient lighting. provide lighting for studying. I also often need to go to school to collect documents at night and this lantern is very Andini, a 6th-grade elementary school useful to light up my way when I leave my student from the Kerasian Island, said: "I house."



### About d.light and Kopernik

#### d.light

manufactures and distributes solar lighting and power products targeting the 2.6 billion reduce poverty. Kopernik has distributed people globally without access to reliable more than 60,000 units of clean energy electricity. Through 10 field offices and four distribution hubs in Africa, China, South Asia home systems, water filters, and clean and the United States, d.light has sold more cookstoves, reaching more than 300,000 than 1.5 million solar lanterns, improving over 7.5 million lives.

modular, upgradeable solar systems for homes and small business, which combined with an affordable payment system, have solar power in the developing world.

d.light is the 2013 Zayed Sustainability Prize winner under the 'Energy' category.

#### Kopernik

As a for-profit social enterprise, d.light Kopernik delivers sustainable energy technologies to last mile communities to technologies including solar lights, solar people.

In Indonesia, Kopernik is also scaling up its d.light has leveraged its leadership in award winning 'Wonder Women' initiative, portable solar lanterns to introduce empowering women to become microsocial entrepreneurs by selling clean energy products in their communities. Apart from connecting remote communities the potential to revolutionise the adoption of with renewable energy solutions, Kopernik also incubates innovation by helping manufacturers develop affordable energy solutions for the poor.

> Kopernik is the 2016 Zayed Sustainability Prize winner under the 'Energy' category.







https://youtu.be/l1kSTOwYmBE

Scan QR code or click the link to watch the deployment video



#### ZAYED SUSTAINABILITY PRIZE

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