



Australians For Women's Health

12th February 2021

I am the Director of the volunteer aid organisation *Australians for Women's Health*. For the past 11 years my teams and I have provided surgical and obstetric services to rural and remote areas of Nepal. Most of these areas have limited electricity supplies and experience frequent blackouts, largely due to the energy grid-sharing system of that country.

Performing surgery or assisting with childbirth become dangerously complicated when electricity fails. This is due to both lack of lighting and the inability to use medical equipment that relies on power (heart and oxygen monitors, suction machines and other essential equipment.)

A unit such as the *Rotary Solar Case* would make a major difference to the lives of our patients in Nepal. The solar power and chargeable batteries could provide life-saving power during times of electricity blackouts. Our organisation is currently building a Mothers & Babies Hospital in eastern Nepal. The *Rotary Solar Case* would provide an extremely valuable resource to deliver greater safety to our operating theatre and labour ward.

I wholeheartedly endorse the *Rotary Solar Case* for our work in Nepal and in other countries suffering from unreliable power supply.

A/ Professor Ray Hodgson
Director, *Australians for Women's health*

Case Studies to highlight the need for solar lights for aid posts in remote areas of PNG

By Sara David AM

Founding CEO Living Child Inc.

1. **March 2020** – Since 2017 Living Child has been supplying small solar lights to the village birth attendants in Keram LLG (population of 40 000) for use when supporting a woman to give birth in the village. Sadly the quality of the lights has been very poor and most of them stopped working within 12 months. While on an outreach trip in March 2020, all of the VBAs requested better lighting. I had 3 lights spare with me and unfortunately this created a huge dilemma, and the women were not happy if they did not receive a light. Lights are precious in the remote areas, especially solar ones. People do not have money to buy torches and batteries – these are luxury items that only village leaders and people travelling up and down the rivers to the main towns have access to (usually the men only). The high humidity and rustic bush material housing mean that any lighting has to be robust, able to withstand the conditions. Unfortunately, many of the Chinese-made lights are not made for these conditions. There is a huge need for better sources of light, particularly for health workers and VBAs supporting women in labour and assisting during birth.
2. **Why lights are needed for aid posts in remote villages of PNG – perspectives of a Midwife volunteer in East Sepik Province since 2012.** When I first went to the remote village of Yamen in ESP, I felt as if I'd been transported to another planet. The village was so remote that the children had never seen a white person and were very afraid of me initially – they thought I was a ghost. There was no power, fresh running water or any basic luxuries such as lights, furniture, bedding. Houses are built out of bush materials. Toilets are dug in the ground – pit toilets. Water is sourced from the river – for washing and drinking.

The death rate of mothers and babies in this area was very high and that was why I had been asked to visit the place and provide some training to the village birth attendants. There were no statistics about the deaths. No records. As no records were taken. Only stories. Everyone had a story to tell of a mother, sister, auntie, daughter who had died in childbirth during the last 5 years. It was horrific to listen to.

There were no health services. I saw remnants of health facilities – old dilapidated buildings, doors locked. When I peered inside there was nothing. Rusty, dusty trolleys and other supplies left from the old days'.

Babies usually come at night. Ask any midwife – most labouring women will arrive at the hospital at night. This presents a unique challenge for the VBAs and other health workers trying to assist a labouring woman in a remote village of PNG. Lighting is imperative to be able to watch the woman, see whether the baby is coming and then provide some assistance and support as the baby is born. Critically, lighting is essential for being able to assess the amount of bleeding once the baby is born, to be able to check the placenta and make sure all the parts of the placenta are intact, because if they're not then the woman is in danger of bleeding to death or dying from severe infection. Lighting is needed to check the mother for tears after giving birth and to help with cleaning her up. Lighting is also needed to check the colour of the baby and make sure he is breathing, and to assist with ensuring the baby is breastfeeding well.

Can you imagine doing all those things without a good source of lighting?

Ref TM

27 April 2021

Dear Sir/Madam

Re: Solar Case

I am the Principal Midwifery Advisor at the Department of Health Western Australia and the Program Manager for the Global Health Alliance WA program and am writing in support of the Solar Case for funding.

As a nurse and a midwife who has volunteered in developing countries and worked in many remote areas of Australia, I cannot express the gratitude at having a consistent continuous light source when all power supplies have ceased to work – including the backup generator. Having adequate light means as a midwife I can provide optimum care for mothers and babies during labour and birth and in the early postnatal period.

I have experienced this first hand in Tanzania when a storm took out several powerlines and the hospital backup generator failed. I was working with Tanzanian midwives and Australian volunteers in teaching maternal and newborn care. We were in the labour and birth suite with 10 labouring women and no light to see by. Using pencil torches and mobile phones we managed to birth all the women but not without some serious complications including post-partum haemorrhage, severe perineal trauma and babies that were born flat. With adequate light we would have minimised these complications.

I also experienced what it meant to live in darkness in Angoram District PNG when the only source of power, the generator is turned off at 7pm to save fuel. Having to navigate across the compound to check on pregnant women, new mums and babies created a number of challenges not least of all avoiding the nocturnal wildlife especially snakes. This scene is replicated across some 2000 communities in PNG alone. The challenges experienced by these communities has been further exacerbated by the Covid Pandemic.

I believe there is a great need for the Solar Case in PNG, with a successful pilot having been trialled. I am happy to be contacted if you would like any further information at tracy.martin@health.wa.gov.au

Yours sincerely



Mrs Tracy Martin
Principal Midwifery Advisor
GHAWA Program Manager

Kula Spirit Spacim Pikinini, PNG, Inc



Spacim Pikinini, PNG, Inc has been providing health services, family planning and vaccination services to the Milne Bay Province and remote islands of the region for over 10 years.

With one of the highest maternal and child mortality rates in the region, the conditions under which remote medical and health centres operate leave much to be desired. While the PNG Government has plans for electrification of the nation, the reality in these remote regions is many years, if ever, away.

The geographic nature of the region, the inability to maintain supply lines (diesel for generators) exacerbate the challenges faced daily by the health workers in these regions.

The Rotary Solar Case will enable babies to be delivered using a solar light source rather than relying on torches or spirit lanterns, aiding in deliveries and treatment of other medical issues. The end result is a better experience both for the mother and the child, that is delivered into light rather than darkness.

Based on our local, on the ground experience, Spacim Pikinini, PNG, Inc, supports the Rotary Solar Case.

Wendy Stein, OAM, PP, PHF
9 March 2021