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# An entrepreneur lights the way in Africa



By Jayne Brocklehurst

**Sameer Hajee (MBA '04D) has the indefatigable energy and solid optimism that entrepreneurs need to succeed. These days he is also breathing a bit easier. A major investment player - Merrill Lynch-Bank of America - has just given him scale-up funding in the form of carbon credit purchases to move his Nuru Lighting company to the next tier. INSEAD Knowledge first started to follow Hajee's story in December 2009. This is the latest chapter...**

In February, an agreement that Nuru penned with Bank of America-Merrill Lynch gave the bank an option to buy several million carbon credits over a 10-year period, which they can then resell on the market. What it gave Nuru was a future - and a bright one. "This deal will provide us with the capital to scale up in five countries in East Africa: Rwanda, Kenya, Tanzania, Uganda and Burundi," Hajee explains.

"The potential exists for tens of thousands of entrepreneurs in East Africa who could sell hundreds of thousands of light cubes. The result: we are certainly expecting to be profitable within three years, and not five." Nuru

Energy is also looking to scale up in India, having tweaked the business model for this market, and is also talking to potential partners in other African countries, notably Ghana and Nigeria.

It marks a big leap forward, considering Hajee only officially launched his venture in Rwanda in 2009 to bring affordable lighting to nearly 10 million of the world's poorest. Now, with long-term revenue potential in the form of payments for carbon credits, he has ambitions for the social enterprise to help alleviate poverty among two billion people in East Africa, India and the developing world.

In 2008 he spent time in Rwanda as an MBA student and observed that 95 percent of the population had no access to grid electricity, reliant instead on kerosene for their lighting needs. Kerosene is not only expensive (consuming 40 percent of the average income) for most people in the region, it is unsafe, environmentally damaging and inefficient as a fuel source for lighting.

Hajee saw both the need to provide an alternative, accessible product to this rural market, and the challenges involved in doing so. "Ninety percent of consumers continued to purchase kerosene because of a few key factors," he explains. "First, kerosene is portable; second, it's reliable - you don't have to rely on the wind or the sun, you light it and it lights; and lastly, it can be purchased in increments.

"An observation we made in 2008 and we continue to make is that the majority of lighting needs are for task-based activities." Hence the Nuru POD Light was conceived: a battery-operated, hand-sized portable light "cube" that lasts for up to 40 hours and can be used individually (for reading) or connected to other Nuru POD lights to light a larger space.

## **Designing for the base of the pyramid**

The product's success depended on its affordability. "This is what FMCG (fast moving consumer goods) companies have been doing successfully for a number of years. They took the packaging of a shampoo soap, for example, and made it into bite-size chunks. We've done the exact same thing," says Hajee.

Nuru POD lights have enough capacity to provide 10 days' worth of light. Recharging the lights is done by pedalling a patented bike – the PowerCycle™ – which is capable of fully recharging five POD lights after just 20 minutes of pedalling. By setting up a network of rural entrepreneurs – who took out loans through micro-finance institutions to purchase the PowerCycle™ and then earn money through re-charging the POD lights for customers – Nuru Energy helped to create a sustainable livelihood for people in rural areas. Daily incomes have risen from US\$0.50 to as much as US\$13.50 a day through a combination of selling or renting Nuru POD lights and then offering a recharging service for the lights, roughly equivalent to the cost of recharging a mobile telephone.

There have been a few changes to the business model since its inception. “We realised that as we expanded we could approach a far greater number of entrepreneurs if we removed the power cycle generator from part of the loan package,” Hajee explains. “The loan size is much smaller and for the entrepreneur it is an appetising bite-size, because they perceive the risk to be much less.” Today, the cycle generators are still supplied to the entrepreneurs, but Hajee is in discussions with a number of multinational companies over corporate sponsorship deals to encourage them to bear the cost of the generators in return for brand awareness in rural areas.

## **The hard work begins**

Nuru Energy initially had two revenue streams: short-term revenues comprised the product margins on each sale of the lights and charger, and mid-term revenues comprised the micro-finance fees charged to the entrepreneurs each time they purchased more recharging credits. Now a third revenue stream has come on board with the carbon credits deal providing Nuru Energy's long-term revenue stream.

With Nuru's finances now secure for years to come, and as other inward investment takes hold in the developing world, the Nuru niche is increasing.

“Now is when the hard work really begins,” says Hajee. “For the last three years, we been refining the business model and specifically for the last year we've been working on raising this funding. So today is when we get to roll up our sleeves and take what we've done to the next level.”

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