

First Place

Andrea Masini
Sam Aflaki

case 1-429-384
April 1, 2014

African Solar Rise: Electrifying Rural Tanzania

Introduction

In September 2012, Daniel Uphaus—a young German entrepreneur and founder of the nongovernmental organization African Solar Rise (ASR)—was in his office in Dar es Salaam, Tanzania, reading this passage from *The Economist*:¹

Which plastic gadget, fitting neatly in one hand, can most quickly improve the lives of the world's poorest people? For the past decade the answer has been clear: the mobile phone. But over the next decade it will be the solar-powered lamp, made up of a few light-emitting diodes (LEDs), a solar panel, and a small rechargeable battery, encased in a durable plastic shell. Just as the spread of mobile phones in poor countries has transformed lives and boosted economic activity, solar lighting is poised to improve incomes, educational attainment, and health across the developing world.

As the head of an organization distributing solar products, Uphaus had personally observed the potential benefits of such technology for the local population in Tanzania. He thought about Micah Rukenya, a Maasai schoolteacher from Langaⁱ whom he had recently met. An amicable fellow and a typical young man living in rural Tanzania, Rukenya trusted Uphaus enough to share his problems. "One night my daughter was sick, you know. She is very naughty, you know, she laughs all the time. But she was sick. Very sick." Unbeknown to Rukenya, his daughter had inhaled fumes from the kerosene lamp they used to light their home—a common practice in rural Tanzanian families.



Rukenya desperately needed to call a doctor but his mobile phone, an old Nokia, was completely uncharged. Charging the mobile phone involved a litany of challenges. It is extremely difficult for Langa's people—just as it was for some 85% of the country's population—to obtain electricity (see **Figure 1** for an overview of electrification levels in Tanzania).² Charging his phone required that Rukenya undertake an arduous journey

ⁱ A small village near Simanjoro, one of the five districts of the Manyara region in northeast Tanzania.

Published by WDI Publishing, a division of the William Davidson Institute (WDI) at the University of Michigan.

© 2014 Andrea Masini and Sam Aflaki. This case was written by Andrea Masini (associate professor of operations management and information technology at HEC Paris) and Sam Aflaki (assistant professor of operations management and information technology at HEC Paris) in collaboration with a team of HEC Paris MBA students: Anamaya Bajpai, Fouad Khalife, Veronica Lin, Yamini Naik, Taras Ostapchuk, Alexandros Papapetropoulos, and Samuel Rocha. The authors are grateful to QNRF for providing financial support to the project through NPRP grant 5-873-5-133.

This case was prepared exclusively as the basis for class discussion and is not intended to illustrate either effective or ineffective handling of a situation. The case should not be considered criticism or endorsement and should not be used as a source of primary data.