



# Rural Charging Services, Uganda

How to Stay Powered Up Without Access to Mains Power

Jan Chipchase, Indri Tulusan

# Introduction

Uganda is a country coping with a severe energy crisis resulting in frequent power cuts. In addition, access to mains electricity in rural locations is limited. **Given that mobile phones require power, and access to power can be unpredictable – how do people keep their mobile phones and other electrical devices charged?**

For many Ugandan rural communities with no access to mains power **car batteries are the primary means of providing electricity to the home.**

Businesses such as bars also run off car batteries but they are more likely to have their own power generator. A used car battery costs 30 to 40 dollars and can keep a **household powered for a month.** In a bar the same battery might last a week. The homes we visited ran electrical items included radios, CD players, television and domestic lighting.

It can take **3 to 5+ days to have a car battery recharged** and the process is as follows:


Deliver the car-battery to a charging service, often tens of kilometers away the nearest town with mains electricity access. The battery is taken and returned by a trusted and friendly taxi driver or trader

It takes 3 days to charge a battery, longer if the town where the service is based itself experiences power cuts

The cost of charging a battery around 1,000 Ugandan shillings (0.4 Euro), not including delivery. As a comparison a mobile phone battery costs half as much to be recharged

The following photos were taken as part of a Nokia study into shared phone use in Uganda

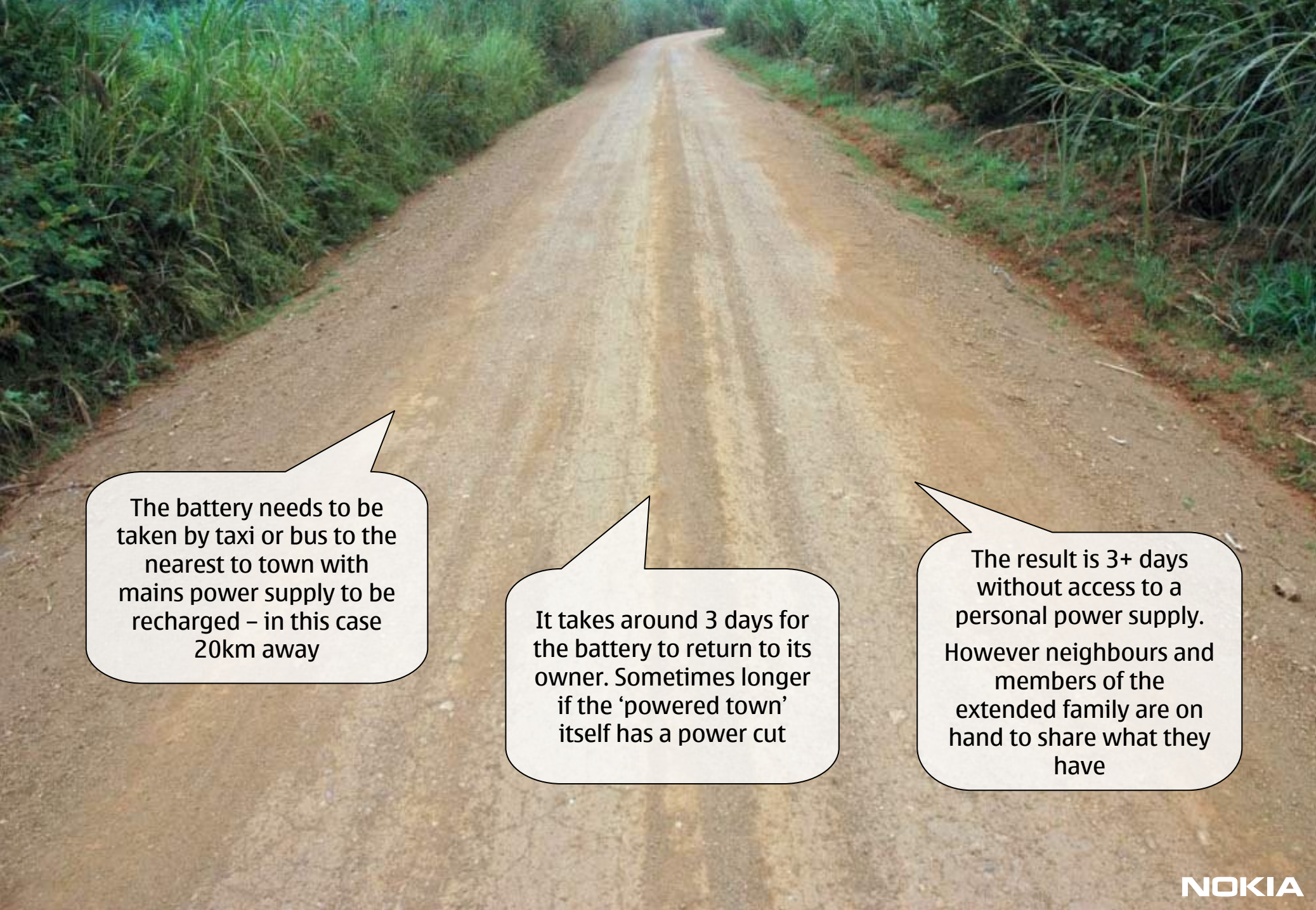




In rural locations car batteries are widely used to power the home

A battery such as this might last one month in the home before needing to be recharged (in a busy bar it might last one week)





The battery needs to be taken by taxi or bus to the nearest town with mains power supply to be recharged – in this case 20km away

It takes around 3 days for the battery to return to its owner. Sometimes longer if the 'powered town' itself has a power cut


The result is 3+ days without access to a personal power supply. However neighbours and members of the extended family are on hand to share what they have



Battery  
charging  
service  
provider







It costs 1000 Ugandan  
shillings (0.4 Euro) to  
recharge a battery.  
Delivery is not included.









Indicating whose  
battery is belongs to  
whom



Battery delivery is not included in the price, but for an additional charge the boda boda (motorcycle) drivers can make a delivery

Phone number of delivery service

07537 7058 Juvoo

**DO YOU WANT GOOD SERVICE OUT OF YOUR AUTOMOTIVE BATTERY? FOLLOW THIS:**

**DO'S**

- Always fill new battery with acid of proper strength i.e. 1.25-1.30
- Always top up with distilled or de-ionised water
- Check electrolyte level regularly at least once in two months
- Keep battery terminals protected with petroleum jelly (Normal)
- Ensure that the battery is firmly clamped in its seat
- Once in a while, have your charging system checked by recommended Auto Electricians. The charging range should be between 13.80 volts - 14.50 volts. Corroded cables and loose or uninsulated wires should also be checked, especially when installing batteries
- Always use slow charging if and when a battery is flat or U/E & water discharged. 075946791

**DO NOT'S**

- Never fill a new battery with acid of strength lower than 1.25 or higher than 1.30
- Never top up a battery with mixed acid. Use De-ionised / distilled water to top up
- Never drain a battery or change the acid or electrolyte of the battery once filled, even when it is not going to be in use for some time. Never change the acid even if it goes flat
- Never fill the battery above the upper level or below the lower level indicated on the battery
- Never apply grease to the terminals as it will contaminate the battery electrolyte
- Never connect your car radio directly to the battery
- Never charge a battery that is flat at high currents. Use slow charge at 8 amps for 10-12 hours
- Never let your vehicle charging system be adjusted without proper meters or tools i.e. Voltmeter (Digital)

**MUGONZA LABEDIVA**  
077340381  
071667601  
07730224  
075946791

**UJAL**  
077453603

**FEDERO 2003**

**CULTURAL LEADERS**

075252327  
07760917409  
075455202

**THE FDC**

**DRACHY**

**ONE UGANDA**







LUGAVE  
BATTERY CHARGERS






**BANNAKALUNGU**

**BATTERY CHARGING  
REPAIR, & GOOD ACID.**







Lack of access to power is comparable to access to mains water

Water delivery costs 200 Ugandan Shillings (0.1 Euro)





/end

NOKIA