

**TATA**  
COMMUNICATIONS

trickleUP

**mpowered**

## Upwardly Mobile

Mobile Connections to Promote  
Women's Economic Development



# Overview

What happens when the world's poorest women have a wealth of information at their fingertips?

In 2015, Trickle Up began testing that hypothesis by putting the power of mobile phones into the hands of 1,000 women in India who strive daily to overcome conditions of extreme poverty and vulnerability. Could the addition of smartphones to our time-tested Graduation Approach provide new tools to help women manage their Trickle Up livelihoods and establish connections to government programs, banks, and markets? Could a smartphone increase women's status within their communities and reduce the risk that they would be further marginalized?

Trickle Up launched the MPOWERED (Mobile Connections to Promote Women's Economic Development) project with Tata Communications and the state branches of the National Rural Livelihoods Mission in Odisha and Jharkhand. Our shared goals were to improve the lives and livelihoods of some of India's poorest families and generate valuable lessons for Trickle Up as we enter our next phase of expansion and product enhancement for MPOWERED.

Based upon evaluations by Trickle Up and an independent consultant, MPOWERED demonstrated that smartphones, especially when coupled with effective coaching, can help women gain access to information that can boost the productivity and profitability of their livelihoods, connect them to government social programs, and overcome barriers of geographic isolation and illiteracy.

## Trickle Up's Graduation Approach

Graduation provides women risk-free start-up capital, livelihoods skills training, and follow-up coaching to strengthen financial literacy, build successful livelihoods, and create the means to save and access credit. The goal is for Trickle Up participants to develop sustainable livelihoods, save on a regular basis for business expansion and household needs, access affordable credit, and gain skills and confidence that last a lifetime.

Through MPOWERED, women can manage their businesses more effectively, link to bank accounts and financial systems, report emergencies, learn online, and communicate with family and friends using a smartphone.



Participants use **seed capital** to jump-start a sustainable livelihood

Participants receive a **smartphone** & digital training



Participants receive **livelihoods training** & regular **coaching** to support their businesses

An **interactive coaching app** provides steps & guidance for crops & livestock



Participants **join a savings group** where they save, access credit, share advice, & build relationships

Participants digitally **connect to their bank accounts** & government social programs



Participants **graduate** out of extreme poverty & continue to grow their businesses

Using mobile phones, women can contact peers, coaches, markets, services, report emergencies, & access online tools, such as Youtube, to learn skills

# Connectivity is Crucial

MPOWERED addresses one of the key challenges to improving livelihoods in remote locations—real-time access to information.

While livelihoods coaches visit participants regularly to provide trainings and support, these visits only occur weekly or every other week, creating information gaps in the interim.

Trickle Up designed a mobile application that provides tailored “just in time” information about crop choice, planting strategy, pesticides, feed, vaccinations and money management.

With this coaching app pre-loaded on their smartphones, participants carried a livelihood guide in their pockets. They were also able to directly connect to their bank accounts and government programs and receive digital alerts on upcoming opportunities.



Connectivity is crucial for responding to unexpected crisis. When a tobacco caterpillar threatened the tomato crops of Bangamunda in Odisha, participants used their mobile phones to take pictures of the crops and sent them to staff for support. Quick advice on organic pesticides saved crops and livelihoods. The immediate reporting of outbreaks threatening crop or livestock also allows local government to alert other villages of a potential epidemic and procure vaccinations to combat significant losses.



## Pocket Coach

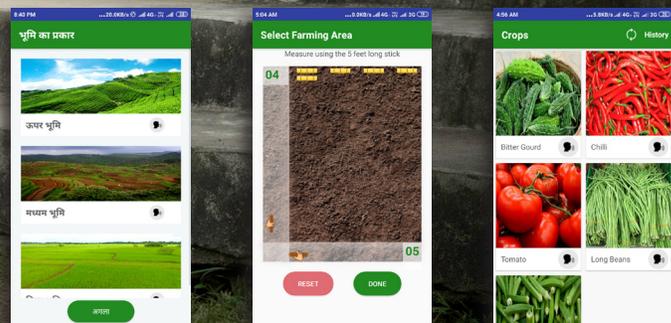
Trickle Up developed a digital application providing interactive guides and automated calculations of the quantity and type of inputs needed for cultivating crops and rearing livestock. With the coaching app installed on their smartphones and available offline, participants had livelihood advice available anytime in the palm of their hands. Design features to help low-literacy users include visual instructions, instead of text, and step-by-step voiceover guidance in local languages.

**80%**

of participants were using the app to support crop cultivation\*

**77%**

of participants reported improved agricultural yield & livelihood conditions\*



\*After 18 months, according to independent KPMG report.

# Powering the Poorest

Mobile technology provides new solutions to one of the oldest challenges of building sustainable, rural livelihoods—direct access to information and resources. However, simply providing phones is not enough to integrate these new users into the digital world. To connect the poorest women and improve program delivery, MPOWERED had to address not only technical implementation challenges, but also deeper fundamental barriers linked to the cycle of poverty.



## Connectivity

**Challenge:** Trickle Up's programs generally target remote communities where extreme poverty tends to be concentrated and connectivity is often limited. This creates difficulties for

large data use activities such as application updates.

**Solution:** Field staff identified high connectivity locations to perform batch updates for all participant phones in their area. This was effective in the pilot, but poses problems for scaling. In the second stage Trickle Up is partnering with mobile network providers to expand connectivity and provide pro-poor data and voice calling plans.

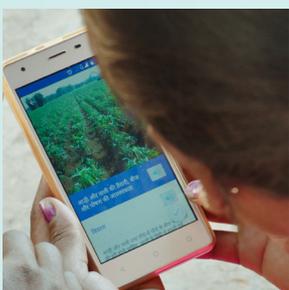


## Power

**Challenge:** Consistent electricity supply proved to be difficult. Seventy percent of households did not have their own electricity connection, making phone

charging uncertain, particularly during peak seasons when the grid was only intermittently available.

**Solution:** Staff mapped the electricity needs to create solar charging hubs in locations with acute electricity supply problems. In the next phase of the project, two participants will share a solar charger. Participants will be encouraged to build enterprises to provide for the charging needs of their increasingly connected communities.



## Hardware

**Challenge:** Phone damage and malfunction is inevitable. Trickle Up mapped local services centers that could provide maintenance, however the manufacturer withdrew

the model limiting the availability of parts. During the project, 70 of 1000 phones had to be replaced,

**Solution:** Hardware must be durable, including being able to withstand uneven electricity supply and high temperatures. Late in the project, participants were willing and able to pay for repairs, so staff organized drives to bring nearby repairers to villages at fair prices. Trickle Up plans to train future participants in basic phone maintenance and create local repair hubs that can contribute to household livelihoods, while meeting the growing mobile needs of their communities.



## Mobile Adoption

**Challenge:** None of the target population had prior experience using smartphones and only 2% of participants had previously had access to an analog phone. How the women

would respond to the new technology was a major concern.

**Solution:** Despite some risk and after providing initial training on care and basic usage, it proved best to give the phones to participants as soon as possible so they could build comfort and confidence using the phones' basic functions. After 3-4 months, all participants were comfortable using the phones to make calls, with 82% able to take photos or videos. Staff then began trainings on the more advanced coaching application and additional mobile services.



## Reliable Support

**Challenge:** While many women quickly learned how to manage their new phones and the livelihoods app, others required more support to operate the

phone or understand incoming messages. These women often turned to their more tech-savvy peers for assistance between field visits by staff.

**Solution:** Peer support proved effective and reliable and was incorporated into the program. Trickle Up recruited 69 Smart Sakhis, or “wise sisters,” from among participants and women in the community who demonstrated success with the phones and apps. They were almost all literate and each committed to supporting a group of 25 peers for a modest stipend of USD \$21 per month. They were trained and mentored by project staff, and effectively complemented—and sometimes even replaced—the work of livelihoods coaches. The Smart Sakhis began to train 2,500 additional women who are members of the same savings groups as MPOWERED participants, thereby extending the use and reach of the app in the community. Smart Sakhis provided important regular feedback on the livelihood app, enabling iterative improvements in design.



## Gender

**Challenge:** Trickle Up primarily works with women. However, men traditionally dominate or control household finances and decision-making. In one case, husbands barred

their wives from receiving the phones out of fear that a phone would increase their wives’ autonomy.

**Solution:** During household visits, staff engaged and counseled men on the potential benefits to their entire family. The majority of women maintained primary control over the phones, while the remainder maintained access. With increased profits, savings, and access to information, women became more influential in both the household and the community. Many also reported having increased self-confidence simply from possessing the phone.



## Education Gap

**Challenge:** With little or no formal education and low literacy levels, many participants are unable to record information from trainings for future use,

possibly leading to mistakes or missed steps. Mobile technology can provide the just in time information to fill these gaps, but literacy also presents barriers to mobile engagement.

**Solution:** Trickle Up’s mobile coaching application is designed to be useful for people without literacy, while enabling extra functionality for those with some literacy or with literate support networks. The app services English, Hindi, Bengali, Oriya, Ho, and Santhal. Visual cues and voiceovers in local languages provide detailed guidance, and participants can check off each step as they complete it. The app was designed to mirror existing practices used by those with limited literacy or numeracy, such as a money counter that used visual denominations of rupee notes and electronic images of sticks used by farmers for land measurement. By tailoring the app to be accessible and familiar to low literacy users, Trickle Up has been able to overcome a major barrier to the digital world to put the power of just in time information into the hands of women without formal education.

*None of us had ever dreamed of owning a mobile phone, let alone smartphones that operate on touch. The feeling of owning a smartphone completely changed the attitude of the project participants.*

**Snehalata Soren**  
Smart Sakhi  
Abhua, Jharkhand



## New Connections

**Connectivity promotes learning & understanding.** MPOWERED participants used smartphones to better inform their livelihood decisions. Using the specialized coaching app, women were able to access instant information on crops, solve problems, and ultimately strengthen their businesses. Many used other apps or websites, such as YouTube, to solve unforeseen problems, analyze local markets, seek information, or learn new skills.

**Connectivity creates new opportunities.** Women who were once disconnected can now access their personal bank savings, connect to government programs, and link to markets. Formerly unavailable government programs, such as the distribution of seeds or grants promoting nutritional gardens, become accessible resources for the most remote women. Coaches and staff were able to be in easy contact with the community and more effectively provide services such as hosting mobile bank drives to integrate participants into formal banking structures. Additionally, phones have the potential to create new local earning activities such as phone repair and charging stations.

**Connectivity is more than practical, it's empowering.** Owning a mobile phone creates a sense of identification for the women who are often denied their rights and individuality. The program is empowering a new generation of leaders. Many MPOWERED participants have become agents of change in their own communities. Graduation participants who did not receive phones looked to participants with a smartphone for support or communications needs. Mungli Lohar, a Smart Sakhi in Chhota Nagra, Jharkhand, said she is committed to improving her life, but also those of her neighbors and their families. "I'm a leader," says Mungli. "My goal is to lift us out of poverty."

*We support each other.  
Our future is bright.  
We won't back down.*

Mungli Lohar  
Smart Sakhi  
Chhota Nagra, Jharkhand



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