

Impact Assessment: Rural Household Devices Project

Program of the Uganda Communications
Universal Service Access Fund (UCUSAF)

JANUARY 2024



Acknowledgements

This report was written by Evelyn Namara and Ingrid Brudvig, who also developed the research instruments. Fieldwork was led by Evelyn Namara, assisted by Rita Kiyai and Tom Kabali. The team also received support from GDIP's Executive Directors, Sonia Jorge and Onica Makwakwa.

The UCC team, led by James Beronda, provided all the reports, background material, and field support. Special thanks to Arnold Mujuni and James Mpango for supporting community mobilization and coordination.

The study was commissioned by the Uganda Communications Commission (UCC) and co-funded by UCC and Global Digital Inclusion Partnership (GDIP).

Copy editing and design by Kenneth Dimalibot. Photos by Evelyn Namara.

Suggested citation: GDIP (2024) Impact Assessment: Rural Household Devices Project. Global Digital Inclusion Partnership.

This report is made available under a Creative Commons Attribution 4.0 International (CC BY 4.0) license. For media or other inquiries, email press@globaldigitalinclusion.org

About Global Digital Inclusion Partnership

The Global Digital Inclusion Partnership is a coalition of public, private, and civil society organizations working to bring internet connectivity to the global majority and ensure everyone is meaningfully connected by 2030. Founded by a global team of experts who successfully championed affordable and meaningful connectivity around the world, GDIP advances digital opportunities to empower and support people's lives and agency, leading to inclusive digital societies.

About Uganda Communications Commission

The Uganda Communications Commission was established by the Uganda Communications Act No. 1 of 2013, which consolidated and harmonized the Uganda Communications Act of 1997 and the Electronic Media Act of 1996. UCC is thus a converged regulator for telecommunications, data communications, broadcasting, postal communications, radio communication and infrastructure. The Uganda Communications Commission is also tasked with supporting and implementing the Uganda Communications Universal Service Access Fund (UCUSAF).

Table of Contents

Executive Summary	5
Introduction	11
Methodology and Purpose of the Study	12
Demographics of Participants and Internet Access	13
Stories of Emerging Socioeconomic Impacts	15
Use by Family Members	19
Information and Communications	20
Income Generation and Time Use	21
Health and Education	23
Training Program Effectiveness	25
User Experience (Usability, Functionality, and Reliability)	26
Reporting Faulty Devices and Getting Repair Service	26
User Satisfaction, Complaints, and Key Recommendations	28
Key Initiatives by Uganda Communications Universal Service Access Fund	33
Conclusion	34
ANNEX 1: Report from Observation of Tablet Distribution Program in November 2023 (Gomba)	38
ANNEX 2: Districts and Number of Households Reached (December 2023)	43



**Bridging The Digital Divide
A Household At A Time**

Bertcom

Executive Summary

The Uganda Communications Universal Service Access Fund (UCUSAF) is a strategic initiative established under the Uganda Communications Act 2013. Its primary mission is to bridge the digital divide and extend information and communication technology (ICT) services to unserved and underserved parts of Uganda.

The project under assessment involves distributing grid and solar-powered tablet devices loaded with six months of data bundles to low-income households in villages nationwide. At the time of the study, the project had implemented two pilot phases, with a third phase of distribution and implementation ongoing. **By December 2023, the project had reached 54 districts and 10,706 households (see Annex 2).**

The project's core objectives include enhancing connectivity, digital literacy, and access to information for communities, ultimately bridging the digital divide and empowering beneficiaries to participate in the digital age. This assessment involved collecting qualitative and quantitative data through a survey, focus group discussions, and observations within beneficiary communities, including during the phase 3 distribution cycle with Uganda Communications Commission (UCC) staff. This report assesses the **socioeconomic impact, the effectiveness of the digital skills training provided to the beneficiaries, user satisfaction and experience, and the devices' usability, functionality, and reliability.**

The initiative has been an ongoing learning experience. UCC identified several challenges along the way in the pilot phases of implementation, some of which were addressed in the third phase. This report aims to document the positive outcomes as well as past and current ongoing challenges.

Emerging Outcomes

The impact assessment underscores the commendable achievements of the Rural Household Devices project. By December 2023, the initiative had successfully reached 54 districts and impacted 10,706 households. The outcomes are multifaceted and transformative, with a substantial number of beneficiaries experiencing internet-enabled devices for the first time.

Low literacy, lack of affordability, low dominance of some telecom providers, and poor quality of service are cited as some of the major challenges. As a result of these systemic affordability, connectivity, and skills barriers, the majority of beneficiaries had never used the internet prior to the project.

At the time of the study, a third of the participants interviewed now use the internet daily, 20% use it weekly, and 10% use it on a monthly basis. However, 22% indicated that they have never used the internet due to various barriers discussed in the report.

Devices distributed through the program are predominantly used by children and household members for education, income generation, saving time for business, discovering new business opportunities (e.g., using Google Maps to carry out business in distant towns), entertainment, information access, and communicating with family. **Two-thirds or 65% of participants reported increased income due to the use of the device for business activity, which was made possible by participating in the program and owning a household device. Participants also reported the benefits of saved time and money.**

Use of device for small business activity

“I use the device to do my small mobile money business. I have been able to save 30,000 UGX to help buy uniforms for my kids. It is a source of income for me.”

Use of device for saving time and money in transport costs

“It has helped me deal with my businesses. I create documents using my device and send them to my customers without using transport, so it saves me money from time to time.”

“It has simplified business; sometimes instead of using transport to go to a place, I use a camera to take a picture and run transactions online.”

Positive Outcomes:

1. **Educational Empowerment:** The project has significantly contributed to improving access to education, with households reporting increased engagement in educational activities. Children, in particular, have benefited from enhanced learning opportunities, and assessing if this will lead to improved academic performance will be important.
2. **Economic Upliftment:** Small businesses within beneficiary households have witnessed positive transformations. Participants reported notable improvements in business efficiency, cost savings, and increased income generation facilitated by the integration of digital tools.

3. **Communication Enhancement:** The devices have become pivotal in fostering improved communication among family members. Zoom calls, video conferences, and online connectivity have brought families closer, overcoming geographical barriers and fostering a sense of unity.
4. **Health and Information Access:** Some survey respondents have embraced the devices as valuable tools for health-related information. The ability to access information about diseases and medical conditions has empowered them to make informed health decisions, showcasing the broader societal impact of the project.

Overall, survey respondents provide a nuanced perspective on the diverse ways in which the devices have been integrated into daily life. Noteworthy insights include the positive impact on family dynamics, education, and communication.

Challenges such as device sharing conflicts and concerns about surveillance highlight the need for tailored solutions to enhance the user experience. Below are some of the key issues the assessment noted. This evaluation targeted beneficiaries who received gadgets in the first distribution phase. It is worth noting that most issues have been resolved, and some are under review by the Uganda Communications Universal Access Fund (UCUSAF) team. Key Initiatives by UCUSAF can be found in the report.

Key Issues Raised:

High Personal Costs of Device Repairs:

- Beneficiaries face significant financial burdens for repairing devices.
- Repair expenses, often high, contribute to additional costs borne by the users.

Long Waiting Times for Repairs:

- Delayed device repair services result in extended periods without device functionality.
- Participants reported prolonged waiting times for UCC assistance, affecting user satisfaction.

Absence of Local Technicians or Service Centers:

- Lack of local support infrastructure contributes to challenges in addressing device malfunctions.
- Participants highlighted the absence of nearby service centers for prompt repairs.

Limited Ongoing Support:

- Lack of champions or trained individuals within communities hinders ongoing support.
- Users require sustained assistance for device maintenance, data uploads, and functionality.

High Cost of Data:

- Affordability issues related to data costs pose a challenge for consistent internet usage.
- Users expressed concerns about the financial strain caused by data expenses.

Low Literacy and Awareness of Apps and Usage:

- Beneficiaries face challenges in understanding and utilizing available applications.
- Limited literacy levels contribute to difficulties in maximizing the potential of the devices.

Concerns About Program Selection:

- Beneficiaries raised concerns about the random selection process for device distribution.
- Doubts and suspicions regarding government surveillance were expressed by those not included.

The high cost of repairs at personal cost, long turnaround time (TAT) for repairs when devices are sent to the device suppliers for repairs, absence of local technicians, high cost of data are cited as **key challenges**.

Most households reported large families with many children (up to 13 or more). It is unclear if all these children live in the same household or are distributed between different households (men with other wives). A concern raised was that the device is often shared between many household members, with mixed reports of both positive outcomes and emerging conflict regarding who gets to use the device. More than one device per household was reported as needed to resolve this issue.

In addition to the emerging positive outcomes on socioeconomic status, children's education, and use of the internet for communication, information, and income generation, it is also important to note the unintended consequences, continued costs to users, and concerns about trust in devices and in this program as raised by the participants.

The study identifies key ICT interventions and community consultation processes recommended to make strides towards a more significant desired impact in study localities and to expand the program across Uganda. The recommendations will support UCC in developing digital skills and driving demand, adoption, and usage through sustained ICT and public access infrastructure investments, public-private partnerships to maintain data subsidy beyond the program duration, and community education, sensitization, and ongoing technical peer support to beneficiaries in future implementation.



UGANDA
COMMUNICATIONS
COMMISSION

0277271
72380000

Call: 0800211046
SMS: 8080

FRAGILE
KEEP DRY
DON'T DROP

ITEM NO:
QTY:
N.W:
G.W:
MEAS: 43 X 25 X 37 CM

PCS
KGS
KGS
CM



Introduction

The Uganda Communications Universal Service Access Fund (UCUSAF) is a strategic initiative established under the Uganda Communications Act 2013. Its primary mission is to bridge the digital divide and extend information and communication technology (ICT) services to unserved and underserved parts of Uganda. UCUSAF plays a pivotal role in facilitating the deployment of ICT infrastructure and services, ensuring that even remote and marginalized communities gain access to the benefits of modern communication technologies. By implementing projects and initiatives like the mobile connectivity project assessed in this study, UCUSAF is dedicated to advancing digital inclusion and fostering socioeconomic development across the nation.

This evaluation report outlines the research findings for an Impact Assessment of UCUSAF's mobile device connectivity initiative in low-income households in Uganda. The Evaluation Study was conducted as part of the Memorandum of Understanding (MoU) between the Uganda Communications Commission (UCC) and the Global Digital Inclusion Partnership (GDIP).

The project under assessment involves distributing grid and solar-powered tablet devices loaded with data bundles to low-income households in villages nationwide. The devices included a data plan that was topped up monthly for six months by UCC. This is a one-time “start-up” data plan; the high cost of data to continue using it is cited as one of the main challenges for beneficiaries.

At the time of the study, the project had implemented two pilot phases, with a third phase of distribution and implementation ongoing. **By December 2023, the project had reached 54 districts and 10,706 households between phases 1-3 (see Annex 2).** The size of households varied, with the average household including two female learners and two male learners. However, some households reported between six to more than ten learners. The selection of villages is in part determined by the availability of resources.

The project's core objectives include enhancing connectivity, digital literacy, and access to information for communities, ultimately bridging the digital divide and empowering beneficiaries to participate in the digital age.

Methodology and Purpose of the Study

The project involved collecting both qualitative and quantitative data:

- The survey was completed individually with 40 male and 23 female participants.
- Four focus group discussions with male and female participants in four different localities.
- Observations within the beneficiary communities, including during Phase Three Distribution cycle with UCC staff.

This report is intended to review and analyze existing data already collected by UCC and collect new data to support the assessment of outcomes to shape project design. It is also designed to provide illustrative insights into the outcomes and impact of the tablet connectivity project.

The study was designed to evaluate the extent to which the project has achieved its intended objectives and how it has influenced the lives of its intended beneficiaries.

Data was collected in November 2023 by GDIP local researchers.

The impact assessment study addresses:

- the **socioeconomic impact** of the mobile connectivity project on the beneficiary communities, including attributed changes in economic opportunities, education, healthcare, and social interactions
- the **effectiveness of the training** provided to the beneficiaries upon the setup of tablets and beneficiaries' knowledge, skills, and confidence levels in utilizing the devices for communication and accessing information
- **user satisfaction and experience** concerning the mobile connectivity initiative, including assessment of the provided **devices' usability, functionality, and reliability**, training, and outreach

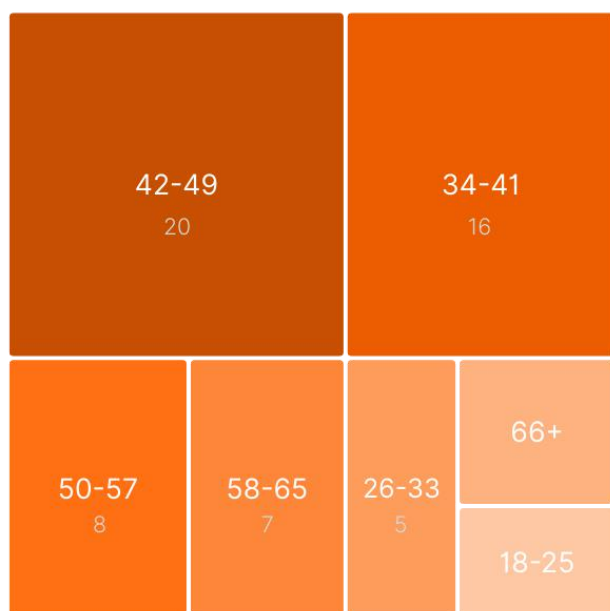
Demographics of Participants and Internet Access

The study participants were 63% male and 37% female.

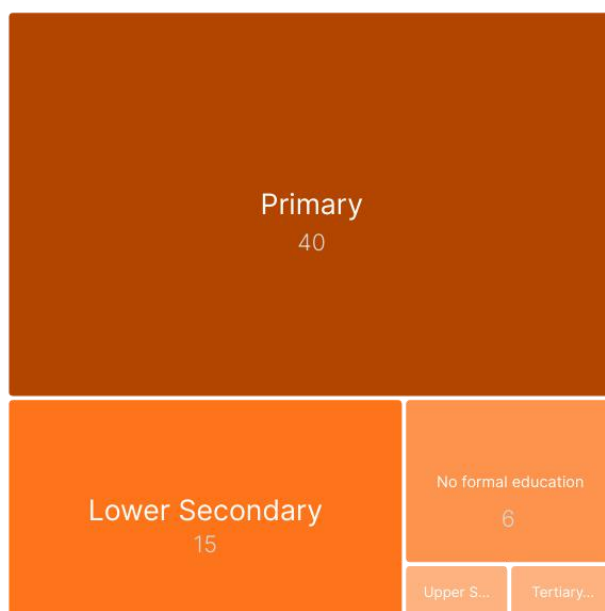
The age group of the research participant sample reflects the profile of program beneficiaries, primarily adults over the age of 34 and up to 60, and elderly populations, as the main recipients of devices in the target villages.

- 25% of the study participants were between 34-41
- 31% of the study participants were between 42-49
- 12% of the study participants were between 50-57
- 11% of the study participants were between 58-65

Graph 1: Age of Study Participants



Graph 2: Education Levels of Study Participants



The majority of participants (87%) reported having completed only primary education (63.5%) and lower secondary school (23.8%), while 9.5% reported having no formal education or schooling. Most participants' livelihoods include farming, small trades, and supply and distribution in the informal sector.

Most of the study participants (93%) had owned a basic mobile phone before the program but had never owned a smartphone. **Only three individuals reported having a smartphone prior to the program.**

The majority of study participants had never used the internet prior to the program. At the time of the study, a third now use the internet daily, 20% use the internet weekly, and 22% claim to never use the internet despite receiving the data plan and device in their household.

The main barriers to more frequent internet use include:

- The high cost of data for internet (e.g., data top-up, app fees, monthly bills) (24%)
- Literacy and difficulties reading and writing (25%)
- Slow connection speed and quality of services (11%)
- Time scarcity, not having enough time to use the internet (11%)
- Digital skills and confidence (11%)

“I left the device to my 13 children because I didn’t know how to use it.”



Stories of Emerging Socioeconomic Impacts

The majority of study participants reported that they had never owned a device previously, and engagement in the program was the first time for them to use the internet. Low literacy and high costs of data and device costs are cited as systemic barriers to digital access and inclusion.

“I love that it has auto-complete; sometimes, when I don’t even know a word, I press three characters, and it auto-completes for me; I find it so useful. So I teach myself most times.”

Several respondents were not aware of what an app means. Instead, they reported using FM radio on the device because “it is easy to use”.

Most study participants use the device mostly at home with their children. They reported that children mainly taught themselves how to use the device first and then shared knowledge and skills within the household.

“We need our star kids trained so they can come and train us.”

Most respondents shared the same views about sharing the devices with their children and family members. In some cases, the communities were allegedly briefed that the device was for children’s education, and therefore, they allocated the device to their children.

“I would ask that they give each household about two devices. Most of us have about four kids, and they are in different grades and they come back home at the same time, so there is always a conflict in terms of who should use the gadget. One gadget is not enough for us.”

However, some raised suspicions about why the government selected a particular community and individuals. There is widespread concern by the beneficiaries about why they received devices while some villages did not. Some people still fear using the devices to their full potential due to perceptions about surveillance. This concern is, however, being resolved by UCC in the current distribution phases with the involvement of local district leadership, including law enforcement.

“There is also misinformation. The villagers were told that these devices were tracking us. Every time we speak, they keep recording us. That is why mostly it’s the kids who use it. There is fear that we are being recorded, so people fear using the devices for real business. This is another limiting factor for using the internet or the device.”

Most respondents talk about access to information, being able to communicate with their friends and family in other countries, and children’s education.

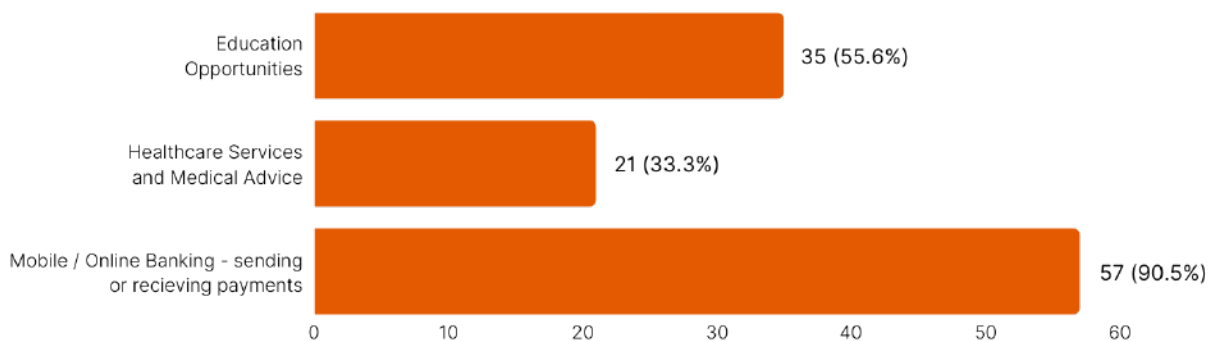
“The best thing for me was that I got it free, so it was a big catalyst.”

Most respondents reported using messaging and content apps like WhatsApp, YouTube, and TikTok for videos and welcomed the ability to send and receive money for mobile banking purposes.

Overall, 55% reported using the devices for educational purposes, while 33% had sought healthcare services and medical advice. Over 90% used the device for mobile payments, including sending or receiving money.

65% reported increased income from participating in the program and owning a device.

Graph 3: Use of the device for education, health, and financial services





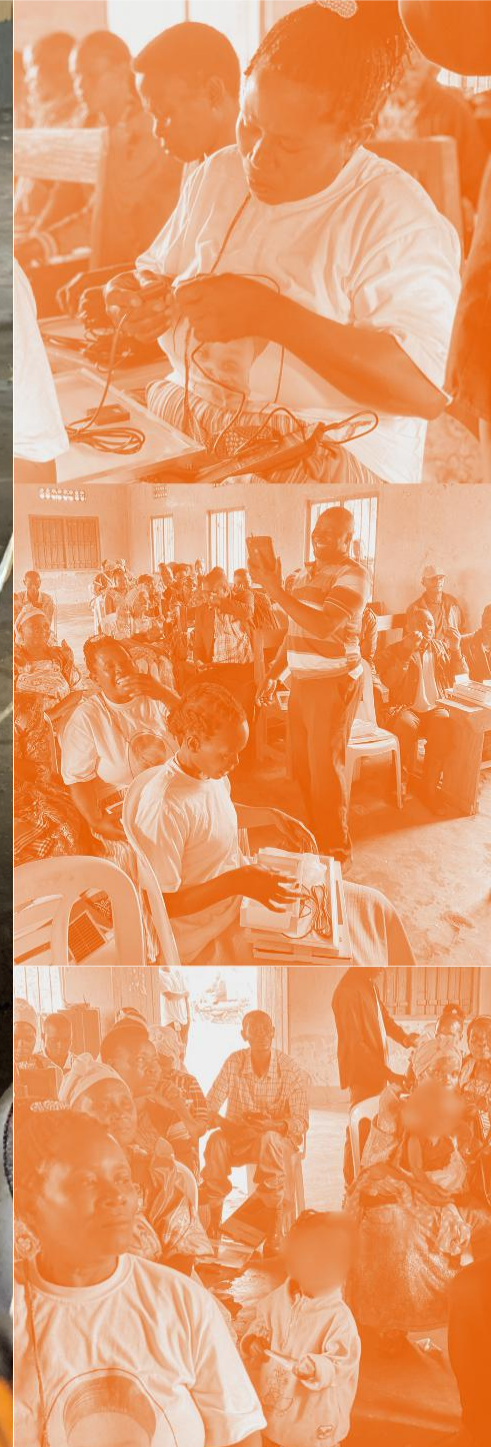
Several participants highlighted that peer-to-peer learning has benefited them and reported teaching each other aspects of the device that they were not taught in the digital skills training session.

However, further ongoing technical support and training are required in each village to ensure sustained usage and benefit.

“The older people also needed help understanding the device. For the older folks, they never really understood how to use the device. And since they had free data, they saw many things at the start and later had no idea how to add data for themselves.”

“I learn a lot from my kids, they teach me a lot about using the gadget. However, for me, my biggest learning is from my peers. I find friends who have had a smartphone for a long time, and they help me to use different aspects of the device.”

“We learn a lot from our peers. I, for instance, found a friend who already had a smartphone, and they helped me navigate the device a lot. It was so helpful for me to learn additional information.”



Several participants reported increased status acquired within the community.

“My status has really grown. People respect me a lot as a result of getting this device.”

“Status. It has contributed to raising my status in society. People respect me. However, for some people who didn’t receive the gadgets, we got a lot of hate from them. We ask you to extend the program so more people can receive the gadgets.”

Use by Family Members

“Mine is used by my wife, and then when the kids return from school, they also use it. I have nine children, so any child who is able to use it can use it. I also use it during the day.”

“I mostly use it in my house. I put it under the shade where everyone can access it. I have a special place in my house where we gather to watch the news or for the kids to study.”

“Education of my kids is the best experience for me. My kids being able to study is a priority for me.”

“I feared that everything would be in the English language and it would be hard for me to get meaningful information, but it has been useful for the kids. The kids have also helped us a lot in navigating the devices.”

“We also have family meetings, my kids use Zoom to call, and I get to see them on video. It makes me so happy to be able to see my kids and relatives via Zoom.” [response from one of the female participants]



Information and Communications

"I'm able to communicate with people so easily and in a timely manner. This has helped me a lot."

"We used to gossip a lot as women, but since getting these devices, we use them for productive purposes, like WhatsApp, finding information online, etc."

"I'm a person who has friends from near and far...the internet has helped me connect with my friends outside Uganda. I can send them voice notes, and I can also see them via video. So communication is key for me."

"I would love to be able to use the device to get all the information I need about farming, how to find the best prices, how to search for best practices in farming, etc. If I get all the information on farming, that is meaningful to me."

"I have discovered a lot of things on the internet. There are so many things I didn't know how to do, but now I get to know a lot about world affairs."

"It's something that connects you to the global world. I can get information about what is happening in other countries in the comfort of my house."

"They gave us an app for farming. After learning how to use the internet, I went online and searched and found a professor who gave me information about some crops. The information has been useful."

"The internet helps us to speak with people in outside countries. Using WhatsApp, we are able to see them on video, too."

"WhatsApp is very useful; I use it to do my business, and I can also see information online easily."

"TikTok, I use TikTok. I watch videos online which are entertaining. I also use Facebook to talk to my friends."

"WhatsApp and Play Store. I use the Play Store to find apps that give me sports information."

"I use Google a lot. No one can lie to me about anything. If someone tells me something I don't know, I ask Google to verify."



Income Generation and Time Use

“I use the device to do my small mobile money business. I have been able to save 30,000 UGX to help buy uniforms for my kids. It is a source of income for me.”

“It has helped me deal with my businesses. I create documents using my devices and send them to my customers without using transport to go there, so it saves me money from time to time.”

“I use the device mostly for financial services, so meaningful connectivity would mean I’m able to use the device to transact and do my mobile money business efficiently.”

“This device has been useful for my businesses. I can now go to places like Mombasa using Google Maps and get to places so easily.”

“What is meaningful for me is the simplicity within which businesses are run.”

This study participant gave an example of when he wanted to complete a plot-selling transaction, and he used his device to send quick information to the chairman to verify some critical information about the plot of land. He took pictures of the land plot agreement and was able to get a quick verification and complete his business in no time.

“It has simplified business. Sometimes, instead of using transport to go to a place, I use a camera to take a picture and run transactions online, which has helped reduce the transport I would have used to go from point A to point B. It helps save me a lot of time and money, and that is meaningful to me.”

“I use WhatsApp a lot, nearly every day. I also use Firefox and Gmail every day. There are forms I use online for my clients, and I can send them these using the internet. It’s fast and simple.”

“I used to put my items online, and people would ask about my products, and I would sell products on WhatsApp. But they stole my device, and I can no longer use it every day.”



Health and Education

"I have always had issues with my health, e.g. I have ulcers. I was able to search about ulcers and got a lot of information about them. When I went to the doctors, I told them some of the things I had learned about my disease, and they were surprised that I had all this information. I credit the internet for this kind of knowledge."

"We learn a lot about health, how to search for different diseases, what we need to do, e.g. wash our hands, what we need to do or what we need to avoid. It is a good source of health information."

"For me, it is about health. If I'm able to reliably search about health and diseases, I find that so helpful for me."

"A child of one of the device recipients says he uses the Internet to search for his work using Google. He uses it a lot to research his schoolwork."

"Our kids are no longer dormant. They are busy, which has helped them stay disciplined."

"I saw an improvement in my kids' education. They were weak in Maths, but when they used the app, they were able to improve their grades."

"The internet has also helped my kids to study; they are no longer idle, and I only have to use little data for my kids to study."





25
UGANDA
COMMUNICATIONS
COMMISSION

FRAGILE
KEEP DRY
& DON'T DROP

ITEM NO:
QTY.
N.W.
G.W.
MEAS. 431 X 25 X 37 CM

PCS
KGS
KGS
CM

Training Program Effectiveness

The majority of participants attended digital literacy classes provided through the program and reported the experience was good (68%) or excellent (5%).

However, it was reported that the training only covered basic skills, and more sustained support and learning are needed to use the device effectively and confidently.

In many cases, the participants rely on their children to teach them or relinquish the device to their family members entirely. Daily support is required to address device repairs, maintenance, uploading data, functionality, and safety concerns.

A graphic titled 'INTRODUCTION TO TABLET DEVICES AND APPLICATIONS'. It features a grid of icons representing various applications. Below the grid, there are two sections: 'DESCRIPTION Hardware' and 'Software'. At the bottom, there is a section titled 'How to power on the tablet device.' with a power button icon and a list of four steps: 1. Locate the Power Button, 2. Press and Hold the Power Button, 3. Wait for the Tablet to Start, 4. Unlock or Enter Your Passcode.

INTRODUCTION TO TABLET DEVICES AND APPLICATIONS

DESCRIPTION Hardware
Hardware is any physical part of the tablet for example the screen and the charger. These are things on the tablet that you can touch.

Software
Software are the parts on the tablets that you cannot touch but help you use the tablet like the applications

How to power on the tablet device.

1. Locate the Power Button
2. Press and Hold the Power Button
3. Wait for the Tablet to Start
4. Unlock or Enter Your Passcode

User Experience (Usability, Functionality, and Reliability)

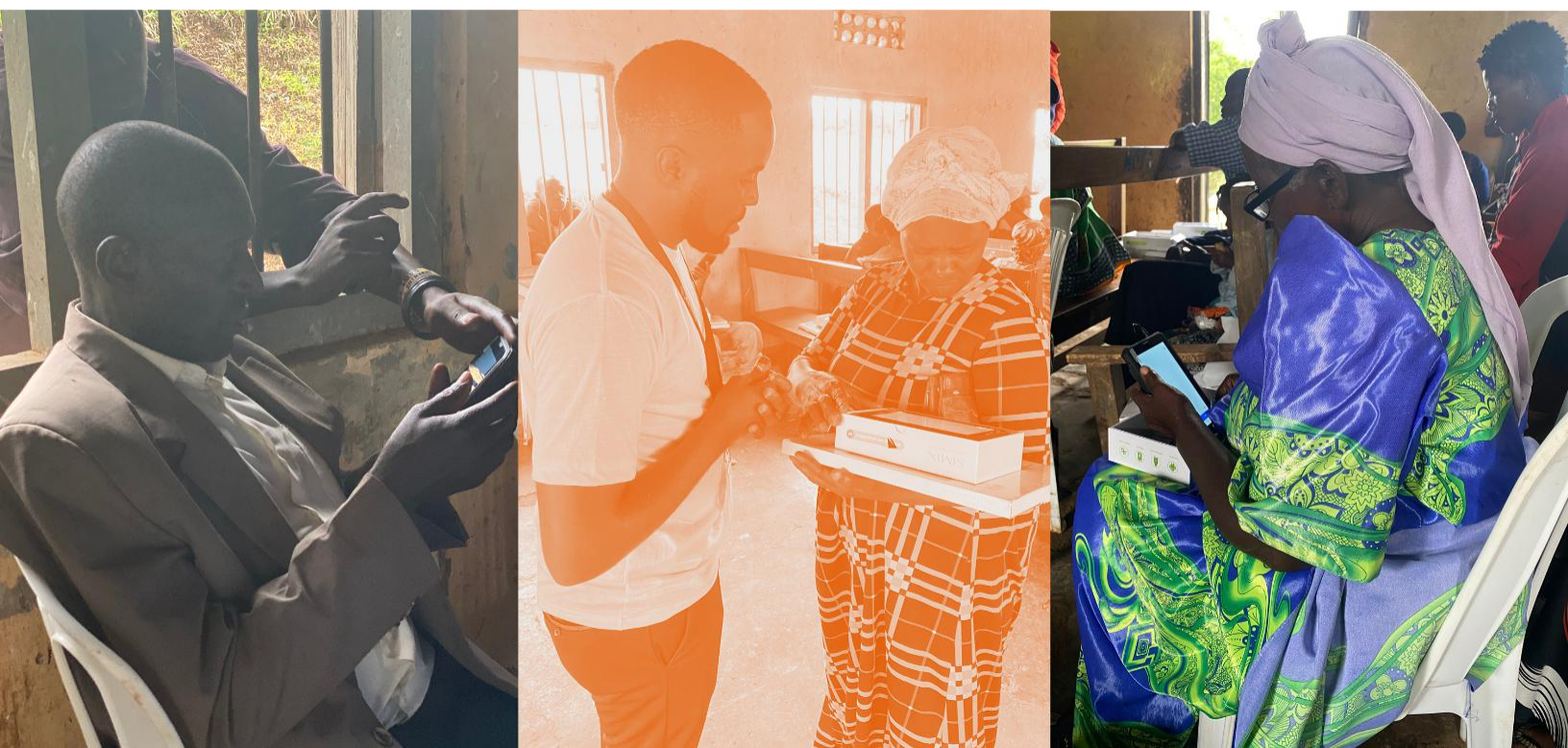
Reporting Faulty Devices and Getting Repair Service

“We need a service center near here to be able to deal with the issues of the devices malfunctioning.”

Many participants reported that there is no option to get devices repaired locally and suffer long waiting times for the respective coordinators to engage with device suppliers.

“Another issue we have is that we don’t have a service center near here. When the devices malfunction, we have to send them to Kampala, and the process takes a long time for us to receive back our devices. It would be nice for us to have a service center near us.”

“We always report to the chairman, and he communicates with the UCC team. The UCC people came back once and took the faulty devices, but they have never come back again. For most of us, we keep the gadgets in the house and wait for a time when they will return to repair them.”



Most respondents say this process takes a long time, and in one focus group, five people in the meeting did not have their devices because they were taken for repairs.

Several women reported they couldn't afford the cost of repairs, and they didn't know if their device would be returned to them. The general feeling is that no help is given to them, so they keep devices after malfunctioning.

Many study participants feel that the program is costing them more money, as they have an obligation to repair the devices and do this out of pocket.

Study participants were instructed that the devices could only be repaired by the company authorized by UCC. For context, this is influenced by warranty provisions in the supply contract.

"We should not tamper with them, so when they get a fault, we simply keep them."

"The money they ask us for repairs is really a lot, especially for us ladies. We spend a lot of money repairing devices; sometimes, we can't afford to get the devices back. For instance, I was asked about 120,000 UGX for my device repair, and I simply can't afford to pay that money. As a result, my device is stuck at the service center."

"They brought these devices to help the poor, but we end up spending a lot of money on repairs. When we take the devices to the chairman, we are expected to pay service fees for repairs, and most of us end up never getting our devices back because we can't pay them."



User Satisfaction, Complaints, and Key Recommendations

Most complaints revolve around the high costs of data and repairs, literacy and skills to use the devices, network challenges, and batteries and charging.

In one village, most respondents did not have enough information about the Internet and how to use it, but most used FM radio and TV apps for entertainment.

One respondent suggested that the UCC team should cover the costs of repairs for devices that have been in servicing for a long time so that the beneficiaries can eventually use them once repaired. The device supplier has honored warranty issues and continues to provide support where applicable.

“They should give us other devices. These are very weak and not resilient for our village life.”

“These devices are so weak and can not be used in our village setup. They should manufacture harder versions of these devices to handle the village life. We need resilient devices.”

Issues were raised around the screens cracking, faulty charging system, unreliable battery, screen freezing, and weak sensors. It is important to highlight that some respondents indicated that they use their devices as mobile phones - moving with them for work instead of using them as household devices. This could also affect the durability of the devices.

“They die so easily. They are also a bit bulky and very delicate. When they take a small fall, they crack immediately, so most of them are dead. Also, we don’t have a service center to repair them quickly.”

“They are not portable. They also have a very dim camera. I want to use it to take pictures for my business, but the camera is not so good. So this limits my usage.”

“The ones who have kept these devices well are women who stay at home. For us who move around, it is very delicate. When it falls, it dies, and it has a very weak sensor. It only requires us to stay in one place. For us mobile people, it is a challenge using this device.”

Issues around device functionality

“My issue is with the battery. If you are connected to the internet, the device uses a lot of battery, so it gets off.”

“The device has a weak charger, and the battery is weak, so they easily malfunction”.

Cost of expensive data and unaffordable device repairs.

“If I had consistent data, I would stay online more often.”

“Apart from the price of data, data also depletes very quickly. We buy data, and within a few days, it is used up. So there is that problem of data depleting fast.”

“You are helping the poor but also punishing the poor.” This was a powerful statement from a male respondent expressing his grievances on how much they have to pay for repairs and keeping the devices functional.

No repair facilities nearby. The need for local service centers in each village to handle faulty issues timely.

“We need to get a service center close to us.”

“We do not receive timely information from device suppliers when we send complaints. Sometimes, it takes a long time.”

A reliable solution having all dominant networks fully functional in villages

Many beneficiaries reported poor network quality, slow speed, and low connectivity. It was evident that some network operators are stronger in some villages than others.

“For me, it is the unreliability of the Airtel network that prevents me from going online all the time. It is not reliable. If we had MTN on these devices, we would be more consistent and reliable online. We would want a network change on these devices.”

A refresher training with more information about the device and skills needed to utilize them.

“We need our star kids trained so they can come and train us.”

“The older people also needed help understanding the device. For the older people, they never really understood how to use the device. And since they had free data, they saw many things at the start and later had no idea how to add data for themselves.”

Support needed to help with tracking stolen devices.

Several respondents reported stolen devices and received no assistance in finding them.

“The ability to track the devices should be easy when they get lost or stolen.”

“The devices don’t have a way to be tracked. When they stole my device, I could not track it. Even when I went to the police, they could not track it. I think they are locked by UCC, so this poses a challenge for us when the gadget is stolen.”

More information on how to use the apps. Many have education and farming apps but don’t know how to use them.

“When we got the first information about this program, the person delivering the devices told us we could have access to a farmers app whereby if we took a picture of a plant and, let’s say, it had a disease, we would easily be able to send information of that picture online and get information about what is causing the disease and how we can prevent it. This is the information we received one year ago while receiving these devices. However, to date, we have never got anything that was promised. There is no farmer’s app on this gadget to help us farmers do our work better.”

“Before receiving these devices, we were promised that they would come and take two to three young kids to teach them how to use the devices, and they would come back to our village and teach us all the basics of these devices. But no such training happened, so it has been difficult for us using the devices.”

“They said the devices were for education, farming, and health. But no apps were put on the devices so we are not able to access the goodness of the devices.”

Community sensitization to address concerns about the purpose of the initiative and how and why beneficiaries were selected.

There is widespread concern about how and why the beneficiaries were identified to receive devices, why their village was chosen, and why some other villages were not included. The rumor in one village that was highlighted is that the government is trying to take rural villagers' land, and that's the reason, allegedly several believe, they were told not to walk with the device and only use it at home.

One village was concerned about why UCC gave them these devices, indicating that they were not provided with any reason. In another case, the community was told that the devices were only for kids to use in their studies.

Some people still have doubts about using the devices to their full potential for fear of "Why?"

"There is also misinformation. The villagers were told that these devices were tracking us. Every time we speak, they keep recording us. That is why it's mostly the kids who use it. There is fear that we are being recorded so people fear using the devices for real business. This is another limiting factor for using the internet or the device."



Key Initiatives by Uganda Communications Universal Service Access Fund (UCUSAF)

From most of the above concerns raised, Uganda Communications Universal Service Access Fund (UCUSAF) has already taken steps in addressing some of the main challenges identified by beneficiaries. Here are some major initiatives that UCUSAF has taken.

Local Champions for User Support:

- **Initiative:** Local champions were trained during the latest distribution cycle to assist beneficiaries with device usage.
- **Impact:** Empowering local champions ensures ongoing support within communities, addressing issues related to device functionality and user queries.

Literacy Training Programs:

- **Initiative:** Literacy training was provided in the latest distribution cycles.
- **Impact:** Enhancing literacy levels directly addresses challenges related to low awareness and understanding of applications, enabling users to use the devices better.

Enhanced Sensitization:

- **Initiative:** More enhanced sensitization efforts during literacy sessions in the latest cycles observed.
- **Impact:** Increased awareness and understanding of the project's objectives contribute to improved user engagement and participation.

Engagement with Local Government Leaders:

- **Initiative:** UCC engages more local government leaders, including the local council leadership, chief administrative officer, and law enforcement unit, in sensitization activities.
- **Impact:** Wider engagement ensures community leaders are informed, fostering a supportive environment for the project and addressing concerns about government surveillance.

Planned Digital Literacy Training:

- **Initiative:** UCC plans digital literacy training for all first and second-cycle beneficiaries this year.

- **Impact:** Continuous education and training initiatives ensure beneficiaries acquire the necessary skills, maximizing the benefits of digital tools and reducing challenges related to usage and understanding.

Conclusion

In conclusion, the Rural Household Devices project has undeniably made substantial strides in positively impacting the socioeconomic landscape of the targeted communities. The transformative outcomes in education, economic activities, and connectivity are indicative of the project's success in bridging the digital gap.

Key Recommendations:

However, it is imperative to acknowledge the challenges and areas for improvement identified during the impact assessment. To ensure the sustained success and optimal impact of the initiative, the following key recommendations are put forth:

Initiatives already started by UCUSAF and some suggestions for improvements

Digital Skills and Community Engagement

Community Sensitization: Conduct ongoing community sensitization to clarify the program's purpose, dispel misconceptions, and build trust.

Community Involvement: Establish mechanisms for ongoing community consultations, feedback collection, and active participation in program design and evaluation.

Tailored Digital Skills Training: Continue digital skills training, focusing on children and youth as primary trainers for their parents and elders.

Localized Approach: Tailor interventions for beneficiaries with varying education levels, incorporating localized language options.

Additional proposed recommendations

Infrastructure and Device Related	Affordability, Connectivity, and Local Support
<p>Localized Support Infrastructure: Establish local device repair centers to address malfunctions, providing economic opportunities within the communities promptly.</p>	<p>Affordability Beyond Initial Phase: Partner with telecom operators to provide scaled subsidy data plans, ensuring continued affordability beyond the initial six-month period.</p>
<p>Public WiFi Infrastructure: Implement free public WiFi at accessible institutions, supplementing individual data purchases and fostering community-wide connectivity.</p>	<p>Enhanced Connectivity: Improve internet connectivity in underserved communities and explore low-literacy software for users with limited formal education.</p>
<p>Diverse Device Options: Explore partnerships with different device manufacturers to assess durability and address design issues.</p>	<p>Continuous Technical Support: Ensure sustained technical support through community leaders, addressing device quality issues and empowering users.</p>

All of these interventions are required for successful outcomes and should be addressed through ongoing and sustained community consultations to ensure the reliability, usability, and functionality of devices, to build trust with stakeholders, and to meet beneficiary expectations.

This may be achieved by:

- Outsourcing program distribution and implementation, including skills training initiatives, to a local NGO with a local presence in local communities. UCC is already implementing this recommendation, as observed during device distribution in cycle three;
- Creating a community advisory committee or feedback panels to gather regular input and insights on ongoing program design, device usability, and content;
- Organize consultation and design workshops that bring together target community members, including women and other marginalized populations, to routinely and actively participate in the program design and evaluation process and to raise emerging issues.

These recommendations, coupled with sustained community engagement, will enhance device functionality, build trust, and ensure the long-term success and sustainability of the Rural Household Devices project. The findings affirm the positive impact of the initiative while providing valuable insights for refining and expanding future endeavors. The UCUSAF and UCC, through continued commitment and adaptability, have the potential to further empower and uplift the communities they serve.



ANNEX 1: Report from Observation of Tablet Distribution Program in November 2023 (Gomba)

The entire tablet distribution process is done in different phases.

The Setup

There were three main stations, each with specific people handling the process.

Months before distribution day, the UCC team carried out a scouting process to identify eligible villages for the program (specific details to be obtained from the UCC team). They register all participants for the program and take down basic personal information, including name, age, village, etc.

Only participants registered through this process are eligible to receive a gadget on distribution day.

Step 1: Verification

The first table is the verification table. Here, three staff members handled the process. They have a register with the names of different participants. The process is manual: they must review the record and find a participant. Once the participant is identified in the register, they are asked to show their national ID card. After showing their IDs and being verified in the register, they are given physical vouchers to proceed to the next station.

Participants line up as they wait for their turn to be verified through this process.



Step 2: Receiving Tablet and Solar Panel

At the second table, staff handed over the tablet devices to verified participants with vouchers. They showed up individually and handed their vouchers to the staff member, who would take it from them, open a new SIM card, insert it in the tablet, and hand it to the participant. Participants are also given a solar panel to charge their tablets.

After the second station, the participants will then go to the third table.



Step 3: Activating the Tablet and making it functional

At the third station, the staff use an app on their gadgets to enter the details of participants. They will then scan the national ID, collect basic information about the participant, and create an email for the participant. They write the email and password on the box, take a picture of the participant holding their national ID, and set them up.

When participants leave this station, their gadgets are fully loaded and ready. They must now proceed to the literacy training center for the first comprehensive training about using the devices.



Step 4: The Literacy Training

The training session for all beneficiaries starts right after a beneficiary is added and processed into the system. The sessions are held in cohorts after the realization that single classroom teaching could not perfectly fulfill the purpose of the training, which is ensuring that the beneficiaries are given adequate knowledge of how to use the tablet device.

On each distribution day, the literacy head teacher is tasked with identifying two (2) smartphone-literate people at the venue who will be trained and shown all the steps during the training sessions. The participants are made aware of the day's session plan and the details of what's to be taught, which includes teaching them how to power the tablet device on, navigate the screen, and use different applications that appear on the screen.

Every session has time explicitly allocated to understanding the purpose of the preloaded applications such as ICT4FARMERS, Google Scholar, and Tutor View.

The training concludes with a Question and Answer session where the beneficiaries ask additional questions about the tablet device and receive immediate responses.

According to the facilitator, literacy training does not end on distribution day but continues even after the trainers leave the venue. The literacy trainers identified at the beginning are also part of the community. After each training, they are shown to beneficiaries so they can go to them in case they need help post-distribution day.



Step 5: Stakeholder Engagement

On the first day of each training, the UCC team mobilizes all the district leaders, including the Local Council I chair, Local Council II chair, police chief, and other district leaders, to speak to the participants about the importance of the gadgets. The stakeholders hold a session where they affirm the reasons and significance of the devices to the community.

They firmly highlight that the devices should be used in households and continue educating the participants on the benefits of being connected and how they can use them responsibly.

The session concludes with the official opening of the tablet distribution, with a few participants receiving their tablets on stage.

With that, the distribution day at each village ends, and participants take their gadgets home.



ANNEX 2: Districts and Number of Households Reached (December 2023)

The following table was provided to GDIP by UCC to document the number of program participants, selected districts, program phases, and distribution cycles.

Villages	Number of Households	Year of Distribution
Agago District	149	
Old Patongo Cell	149	2022
Alebtong District	191	
Angatoabir	57	2022
Fatima Ward	49	2022
Ongom	85	2022
Amolatar District	74	
Awigweng Central	74	2023
Amudat District	216	
Loroo	95	2021
Murut	121	2023
Amuria District	202	
Medical Cell	202	2022
Budaka District	599	
Budope I	172	2023
Budope II	113	2023
Kaajo	150	2023
Kabyoga	58	2023
Kabyoga	106	2023
Bugiri District	142	
Kapyanga	142	2023
Bukedea District	163	
Kachumbala	163	2022
Bulambuli District	158	
Bumulekhwa	158	2023
Buliisa District	181	
Muvule	181	2021
Bundibugyo District	194	
Bundimugayo	96	2022
Ngamba III	98	2023
Butaleja District	455	
Bubbinge A	124	2021
Malangha	176	2023

Villages	Number of Households	Year of Distribution
Musitu	155	2021
Butambala District	87	
Kalagala	87	2022
Buvuma District	127	
Bukaayo	127	2021
Buyende District	108	
Kiseege	108	2023
Dokolo District	756	
Acoobedo	69	2023
Angeta	55	2023
Aweiwot	64	2023
Chwagere	118	2023
Inang	100	2023
Okwor	102	2023
Olii Farm	94	2023
Otoro	56	2023
Oyirogole	98	2023
Gomba District	398	
Kakomo	196	2023
Kigulu	42	2023
Mpanga	37	2023
Mpenja	123	2023
Omoro District	160	
Lacenotinga	160	2023
Karenga District	311	
Katanga	152	2022
Lorukul	159	2022
Rubanda District	121	
Rwara	121	2023
Kaberamaido District	149	
Abedi	149	2022
Kagadi	153	
Kyanaisoke TC	153	2022
Kalangala District	82	
Kibanga Cell	82	2022
Kaliro District	293	
Londe Cell	128	2022
Namugera	165	2023
Kanungu District	203	

Villages	Number of Households	Year of Distribution
Kanyanshogyi	203	2021
Kayunga District	225	
Kyetume A	225	2021
Kibuku District	276	
Buganza	158	2023
Namawondo III Cell	118	2022
Kiryandongo District	135	
Pii-akeyo A	135	2023
Kitgum District	152	
Layik Koco	152	2023
Koboko District	66	
Opo	66	2023
Kotido District	136	
Loodoi	136	2021
Kumi District	202	
Otada	202	2022
Kween District	174	
Korya	174	2023
Kyenjojo District	112	
Nyakahama	112	2023
Lamwo District	158	
Atwol B Cell	158	2022
Manafwa District	293	
Khantsosi	113	2023
Sikundu Cell	180	2022
Maracha District	415	
Abaa	126	2023
Adimni	158	2023
Eyia	37	2023
Yebia	94	2023
Mayuge District	129	
Malongo A	129	2023
Moroto District	119	
Looreng	119	2023
Moyo District	148	
Elenderea Ward	148	2022
Kakumiro District	177	
Kakumiro Town West cell	177	2023
Nakapiripirit District	200	

Villages	Number of Households	Year of Distribution
Lobuneit	200	2023
Nakaseke District	162	
Kibose	162	2023
Namayingo District	138	
Nambugu Cell	138	2022
Nebbi District	178	
Abia	178	2023
Ngora District	135	
Juwai	135	2022
Ntoroko District	98	
Kyamutema	98	2022
Nwoya District	170	
Labyet Ward	170	2022
Otuke District	191	
Adwong Ibuto Cell	191	2022
Pader District	189	
Central Cell Acholi Bur	189	2022
Pallisa District	174	
Kawoken Cell	174	2023
Sironko District	123	
Bunambutye	123	2022
Yumbe District	205	
Odropi	205	2023
Zombo District	154	
Abibarem	154	2023
Total	10,706 Households	

Meaningful Connectivity for the **Global Majority**

Global Digital Inclusion Partnership

1199 N. Fairfax St. Suite 300
Alexandria, VA 22314
www.globaldigitalinclusion.org

Uganda Communications Commission

UCC House, Plot 42 - 44, Spring road, Bugolobi
P.O. Box 7376 Kampala, Uganda
www.ucc.co.ug