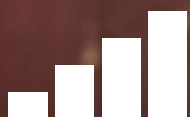


The Digital Worlds of Displacement-Affected Communities

A cross-context study of how people affected by displacement use mobile phones



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The UN Refugee Agency (UNHCR) works to ensure that all fleeing violence and persecution have the right to seek asylum and find safe refuge. UNHCR is mandated to lead and co-ordinate international action to protect refugees, safeguarding their rights and those of other forcibly displaced persons.

UNHCR believes that forcibly displaced people and their hosting communities should have equitable access to digital technology and channels and can use them to pursue opportunities for lifelong learning, inclusion in the digital economy, leisure, and solutions.

For more information go to:

www.unhcr.org/innovation/digital-inclusion/



The Research People is an independent research consultancy that works with humanitarian organisations.

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Definitions

Cash-in: The process by which a customer credits their mobile money account with cash. This is usually via an agent who takes the cash and credits the customer's mobile money account with the same amount of e-money.

Cash-out: The process by which a customer deducts cash from their mobile money account. This is usually via an agent who gives the customer cash in exchange for a transfer of e-money from the customer's mobile money account.

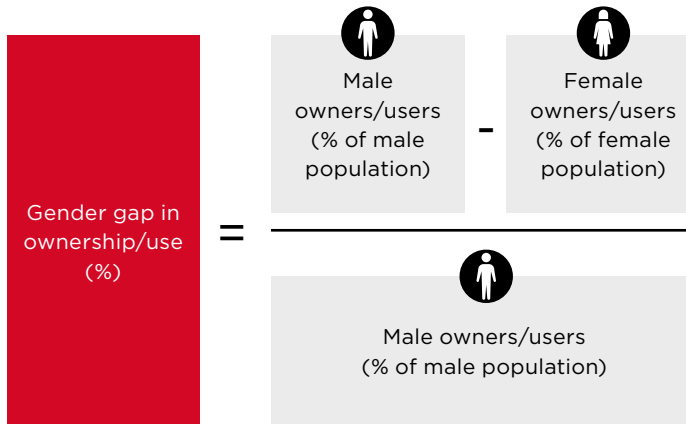
Feature phone owner: A mobile owner who has sole or primary use of a feature phone. A feature phone is an internet-enabled mobile phone with a small screen and basic keypad with several letters per button. A feature phone may have some preinstalled apps but does not have the ability to download apps from an online app store, such as Google Play or the App Store.

Forced displacement: Occurs when individuals and communities have had to flee their homes or places of habitual residence as a result of, or in order to avoid, the effects of events or situations such as armed conflict, generalised violence, human rights abuses or natural hazard disasters.

Humanitarian context: A setting where a singular event or series of events (such as an armed conflict, natural hazard disaster, epidemic or famine) has threatened the health, safety or well-being of a large group of people.

Internally displaced people (IDP): People forced to flee their homes who have remained within their own country.

Mobile gender gap: An analysis that assesses how much less likely women, in comparison to men, are to have access to and use a mobile phone. The analysis shows the difference as likelihood/proportion, as opposed to gross difference. The formula can also be used to look at other markers of potential exclusion, such as disability status, age or primary language spoken. These gaps are calculated using the following formula:



Mobile financial services (MFS): The use of a mobile phone to access financial services and execute financial transactions. This includes both transactional and non-transactional services, such as viewing financial information on a user's mobile phone. Mobile money, mobile insurance, mobile credit and mobile savings are all mobile financial services.

Mobile internet user: A person who has used the internet on a mobile phone at least once in the past three months. Mobile internet users do not have to personally own a mobile phone, and therefore can be non-mobile phone owners who use mobile internet by accessing it on someone else's mobile phone.

Mobile money: A service is considered a mobile money service if it meets the following criteria:

- It includes transferring money and making and receiving payments using a mobile phone.
- The service must be available to the unbanked, for example, people who do not have access to a formal account at a financial institution.
- The service must offer a network of physical transactional points, which can include agents outside of bank branches and ATMs, that make the service widely accessible to everyone. The agent network must be larger than the service's formal outlets.

- Mobile banking or payment services (such as Apple Pay and Google Pay) that offer the mobile phone as just another channel to access a traditional banking product are not included.
- Payment services linked to a traditional banking product or credit card, such as Apple Pay, Google Pay and Samsung Pay, are not included.

Mobile money agent: An agent outlet is a location where one or several provider-issued tills are used to conduct mobile money transactions for clients. The most important are cash-in and cash-out. In many instances, agents register new customers, too. In some markets, an agent outlet can also operate tills issued by several providers, which are generally referred to as shared or non-exclusive outlets. Typically, agents will conduct other kinds of business in addition to mobile money. The individuals or businesses that can serve as agents will sometimes be limited by regulation, but small-scale traders, microfinance institutions, chain stores and bank branches serve as agents in some markets.

Mobile phone owner and phone owner: These terms are used interchangeably in this report to mean a person who has sole or main use of a mobile phone.

Mobile phone user and user: These terms are used interchangeably in this report to include anyone who has had access to a mobile phone in the past three months, whether they own it themselves or borrowed it.

Natural hazard disasters: Any extreme naturally occurring event, such as flooding, earthquakes or tsunamis, that disrupt a community and exceed its ability to cope using its own resources.

Refugees: People who have fled war, violence, conflict or persecution and have crossed an international border to find safety in another country.

Smartphone owner: A mobile owner who has sole or primary use of a smartphone. A smartphone is a mobile phone with a touchscreen display, an advanced operating system (Android or iOS) and the ability to download apps from an online app store, such as Google Play or the App Store.

Executive summary

Mobile phones are changing the way displaced people and the communities that host them interact with the world. The pace of this change was accelerated by the COVID-19 pandemic when humanitarian organisations and other service providers turned to digital solutions to meet people's needs during worldwide lockdowns and restrictions on movement.

For a person displaced from their home, a mobile phone can be a lifeline, allowing them to access humanitarian services, speak with loved ones, send and receive money, or simply relax while listening to music or watching a movie. Over time they create a digital world in which they can meet their needs and explore personal interests and activities. However, the ways in which displaced people interact with their mobile phones depend on the local political, economic and socio-cultural environment. Policy and regulation, social barriers and political realities all influence what people can and cannot do with their phones.

Through in-depth qualitative research and a survey to confirm and quantify findings, this study aims to provide a more holistic understanding of how displacement-affected communities in three humanitarian settings are using their mobile phones.

These settings were chosen to provide a variety of perspectives on the research questions:

- **North and Akkar governorates in Lebanon**, which host tens of thousands of Syrian refugees and are the most economically underdeveloped regions in the country.
- **Iowara refugee settlement in Western Province, Papua New Guinea (PNG)**, which hosts between 2,500 and 3,000 refugees from West Papua, Indonesia. Iowara is an extremely remote settlement that is hard to reach from the nearest town of Kiunga and has a host population of only about 200 people.
- **Bor Protection of Civilians (PoC) site in South Sudan**, which hosts about 2,687 internally displaced Nuer people and is located 7 kilometres from the urban centre of Bor Town.

Deep qualitative engagement and surveys with refugees, internally displaced people (IDPs) and host communities revealed complex digital worlds in which people use their mobile phones to navigate and cope with difficult daily realities. Connecting with friends and family, staying up to date on news and information from home or relaxing with music are all ways for people to respond to the challenges they face. However, these complex uses also present risks for mobile phone users. The research highlights the impacts of low digital literacy, online scams, misinformation, disinformation and hate speech (MDH), and how humanitarians, mobile network operators (MNOs) and other digital and financial service providers can help protect people from those risks.

Part 1: context

The first half of the report explores the ways in which people in the three humanitarian contexts use their mobile phones.



For Syrian refugees in **northern Lebanon**📍, mobile phones were important for connecting with family and for digital entertainment. People spent time every day speaking or messaging with friends and family, especially those still living in Syria. Lebanon has a relatively developed mobile ecosystem despite fuel shortages that cause frequent power outages, including cell towers in the North and Akkar governorates. Compared to the other contexts, refugees and host community members in northern Lebanon had the widest variety of phone uses, including social media, news and online education. Mobile phones were also used heavily to find information about humanitarian services. Still, concerns about privacy, being monitored by authorities and anti-refugee sentiments in Lebanon have led many Syrian refugees to maintain a low digital profile and footprint, often using aliases or connecting only with a close network of family and friends.



Refugees in **Iwara, PNG**📍, overwhelmingly used their mobile phones to keep in contact with family and friends in West Papua, Indonesia or elsewhere. Some users also reported that playing music and videos helped them stay connected with Papuan culture. Although the refugee and host communities in Iwara were primarily farmers and extremely vulnerable to climate hazards, there were few examples of people using their mobiles to access information or support related to food security, farming or climate hazards. In fact, there was some resistance to using phones in this way. Most people in Iwara had basic mobile phones, so access to the internet, online apps and, until recently, mobile money, was limited to a small group of people in formal employment, such as teachers. These individuals have played an important role in introducing other members of the community to more advanced mobile phone uses, especially helping them to send money or pay school fees. Basic phone ownership swelled over the course of this research following a distribution of free basic phones by Save the Children. However, low digital literacy and the cost of charging and airtime meant that 26 per cent of mobile phone owners had not used their phone in the past three months, if at all. There were also significant cultural barriers to women using mobile phones as it is believed that they contribute to extramarital affairs, and there were concerns that increased phone ownership could lead to gender-based violence.



Mobile use among IDPs in **Bor, South Sudan**📍 was characterised by frequent communication with friends and family, as well as creative cost-saving measures and offline use. People with basic phones used them for calling and texting friends and family within South Sudan. Those with feature phones and smartphones accessed a great deal of offline games, music and videos, particularly in the camps where there are no employment opportunities and where young people emphasised the importance of finding ways to pass the time. The high cost of making calls meant that apps such as Facebook and WhatsApp, which can be accessed for free over Wi-Fi, were especially valued for staying in touch with family in the diaspora and finding relatives that had been displaced. Although South Sudan has one of the lowest rates of connectivity in the world, mobile access and ownership in Bor were unexpectedly high: 79 per cent of the IDPs surveyed owned a phone and 90 per cent had access to one. Women, people with disabilities and older people had much more limited access to smartphones and the internet, and women in particular needed family approval to own a smartphone.

Part 2: thematic areas

The second half of the report discusses findings related to three overarching themes: financial well-being, digital leisure and misinformation, disinformation, and hate speech (MDH). These themes were explored in at least two of the research contexts.



Financial well-being → was investigated because research has shown that access to financial services, such as mobile money, can contribute to the well-being of refugees and IDPs. There are no mobile money deployments in Lebanon where there is a well-developed banking sector, so these research questions were only asked in Iowara, PNG and Bor, South Sudan. Overall, the research found low market penetration for mobile financial services (MFS) in both contexts: 41 per cent among refugees in Iowara and six per cent among IDPs and the host community in Bor. People cited a range of barriers to using MFS, particularly inconsistent income, poor access to cash, low digital literacy and low trust in mobile money and mobile banking. Those who did access MFS did so to meet their immediate needs for food, education, travel and airtime. Still, there is interest and optimism about future access to MFS, including for receiving humanitarian cash assistance. The ability to transfer money between friends and families can be lifesaving in areas with limited employment opportunities and high levels of food insecurity.



Humanitarian organisations have typically emphasised the functional benefits of connectivity for displaced people, such as being able to access information and services. However, **digital leisure** → is known to have a wide range of benefits for these groups, including helping them to express aspirations, to pass time while waiting, to escape from harsh realities and to feel empowered. This theme was explored primarily in northern Lebanon and Bor, South Sudan, where people described a wider variety of phone uses, including entertainment, social interaction, news and information (especially from home) and practising their faith. Overall, people felt that being able to use their phones for social interaction and entertainment had a positive impact on their well-being, including feeling more connected, worrying less about family in other places, overcoming discontent and feeling relaxed, motivated, inspired and restful. While these benefits are incredibly important in their own right, the research found that digital leisure also helps to build digital skills, especially among young people who learn how to navigate phone settings, use different apps and explore the internet.



The final thematic chapter explores people's concerns about the high levels of **misinformation, disinformation, and hate speech (MDH)** → they encounter via their mobile phones. Although this was an issue across the three contexts, the concerns varied. Refugees in Tripoli and Akkar were most concerned about hate speech online and its impact on relationships between communities. In Iowara, refugees described their concerns about phishing scams and how this leads them to distrust digital services providers. In Bor, conversations with IDPs focused on the prevalence of false political information online. There were negative impacts on financial and mental well-being in all three contexts, including losing money through online scams, increased community tension due to false information and hate speech and, in Tripoli and Akkar, fear of authorities. People also explained that this has fostered distrust of mobile apps and services, particularly Facebook (in Lebanon and South Sudan) and digital service providers (in PNG).

Mobile technology connects communities affected by displacement to an ever growing and more meaningful digital world. The digital worlds of individuals and communities look very different depending on their goals, desires, aspirations and needs, as well as the structural factors that shape how they can access and use technology. For humanitarian organisations, a deep understanding of the local dynamics around technology is essential to designing relevant and impactful digital programming.

The report ends with brief **conclusions and recommendations** for humanitarian organisations, MNOs, digital providers and regulators to gain a better understanding of the local technology landscape, the benefits of leveraging mobile technology and how to minimise risks for mobile phone users.

Mobile phones have fundamentally changed how displacement-affected communities interact with the world.



01 Introduction



Mobile phones have fundamentally changed how displacement-affected communities interact with the world. From accessing humanitarian services and information to exploring personal interests and activities, mobile phones allow these communities to create their own digital worlds. For a person displaced from their home, a mobile phone is a vital part of daily life, allowing them to speak with loved ones, manage their finances or simply relax while listening to music or watching a movie.

However, the ways in which displaced people can interact with their mobile phones depend on the local political, economic and socio-cultural environment. Policy and regulation, social barriers and political realities all influence what people can and cannot do with their phones. To better understand how mobile phones are shaping people's realities within humanitarian contexts, it is important to recognise both the individual and structural factors affecting their digital worlds.

For humanitarian organisations, recognising the importance of technology is no longer optional.

The near ubiquity of mobile around the world means that, with or without their intervention, people in humanitarian contexts are and will be using mobile phones. It is therefore in the interest of humanitarians to understand how people are using their phones and the local implications of connectivity. This will allow them to better leverage mobile technology – not just to deliver programming, but also to maximise the benefits of mobile for people in humanitarian contexts and minimise the very real risks.

The COVID-19 pandemic demonstrated that connectivity can be a lifeline for people affected by humanitarian crises, connecting them to services at a time when much of the world faced restrictions on movement and face-to-face interaction. It also demonstrated the risks of increased connectivity, as misinformation and disinformation spread faster than organisations and governments could counter it and concerns around data privacy grew.

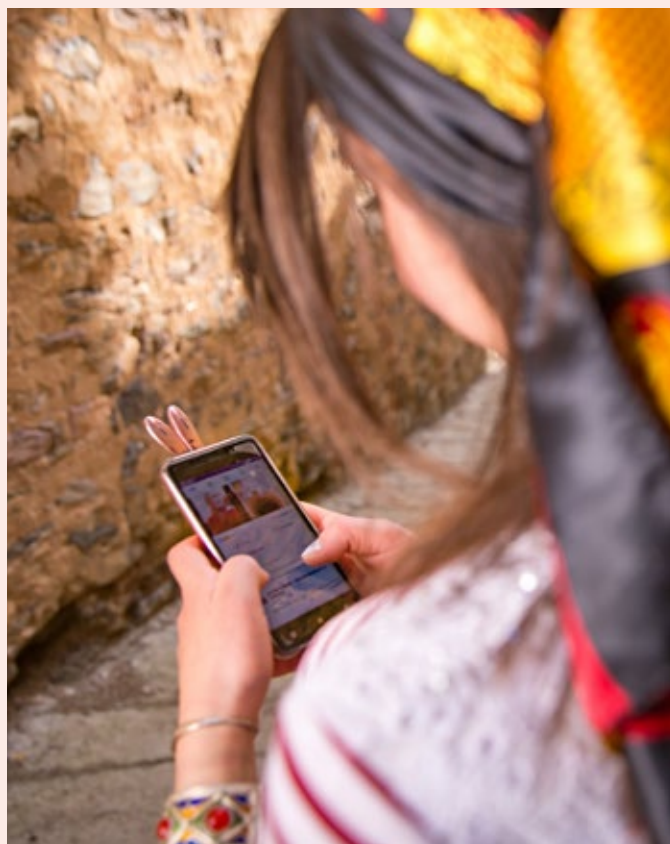
In a post-pandemic world, it will be important to understand the trends, uses, benefits and risks of mobile technology in humanitarian settings. This research seeks to do just that for three humanitarian contexts: northern Lebanon; Iowara, Papua New Guinea (PNG); and Bor, South Sudan. This study focuses on displaced people, who often have unique connectivity needs and encounter greater barriers to accessing mobile phones and internet. While these three contexts are unique, they share some characteristics with other displacement settings and may provide insights into the needs, barriers and connectivity preferences of displacement-affected communities in other parts of the world.



This research is aimed at policymakers, mobile network operators (MNOs), humanitarian organisations and others who want to understand the role and opportunities of mobile in humanitarian settings, as well as how they vary across different contexts. The study was designed to inform both policy and practice and to help decision-makers consider the opportunities and risks associated with mobile-enabled technologies in a holistic way.

The research focused on people's personal experiences and stories of using mobile phones, as well as patterns of mobile ownership, access and digital exclusion.

It explored five emerging themes in digital humanitarian action: financial well-being; COVID-19; digital leisure; climate change; and misinformation, disinformation and hate speech (MDH). This list is not exhaustive, but provides insights into some of the current trends, uses and risks associated with mobile technology in humanitarian settings.



The research had two main objectives:

- To provide a comprehensive understanding of the impact of mobile technology on people's lives in humanitarian contexts. This included gathering data on the experiences of displacement-affected communities accessing and using mobile technology, and the benefits, challenges and risks of using mobile-enabled services.
- To provide information on emerging themes and priorities to help humanitarian organisations and MNOs design digital interventions with, and for, displacement-affected communities.

Three humanitarian settings were selected to represent a diversity of humanitarian challenges and connectivity environments. Within these three settings, research was user-led and focused on the perspectives, experiences and priorities of mobile phone users. It started with participative, relatively open-ended qualitative research that allowed researchers to gain a deeper understanding of how people relate to their mobile phones overall. Then, a representative survey probed the specific thematic areas, allowing researchers to further explore trends and identify opportunities for stakeholders working in humanitarian contexts.

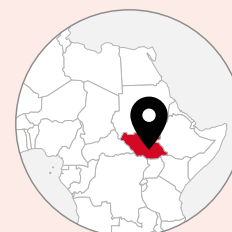
Figure 1
Research study locations













Northern Lebanon



Iowara, Papua New Guinea



Bor, South Sudan

 Location	Tripoli and Akkar in northern Lebanon	Iowara refugee settlement in Western Province	Bor PoC site (IDP camp), Jonglei State
 Displacement context	Urban refugees	Rural refugees	Internally displaced people
 Displaced population	236,736 registered Syrian refugees ¹	2,500–3,000 West Papuan refugees	2,687 IDPs ²
 Nature of crisis	Economic insecurity, political tensions, mass international displacement, port explosion	Economic insecurity, political tensions, high risk of natural hazards	Protracted conflict, seasonal flooding
 MNOs in study area	Alfa MTC Touch	Digicel	MTN Zain
 Nation-wide mobile connections (% penetration)³	65%	35%	22%
 National Mobile Connectivity Index (MCI)⁴	Index score: 63.9	Index score: 51.1	Index score: 14.4
 Percentage of population covered by 3G	99%	73%	66%
 National Mobile Money Prevalence Index (MMPI)⁵	n/a	Low	Low
 Thematic focus of the research	COVID-19 Digital leisure MDH	Financial well-being Climate change MDH	Financial well-being Digital leisure MDH

1 UNHCR. (2022). [North \(Tripoli and Qobayat\) Profile](#).

2 UNHCR. (2021). [Camp Coordination and Camp Management Cluster – Site Profile | Bor IDP Camp, December 2021](#).

3 GSMA national-level data on market penetration and unique mobile subscribers.

4 [The GSMA Mobile Connectivity Index \(MCI\)](#) measures the performance of 163 countries against four key enablers of mobile internet connectivity: infrastructure, affordability, consumer readiness and content and services. It was developed to support the efforts of the mobile industry and the wider international community to meet the goal of universal internet access. The MCI includes 39 indicators across 13 dimensions that provide an aggregate score for four different enablers. Scores fall within the range of 0–100.

5 GSMA. (2021). [The Mobile Money Prevalence Index \(MMPI\)](#).

Structure of the report

Following a brief chapter outlining the research methodology ([chapter 2](#)), the first half of the report ([chapters 3-5](#)) provides an **overview of the findings from each of the three humanitarian contexts**. Drawing heavily on the qualitative analysis, these chapters outline how people use mobile phones in each of the contexts, who is excluded from accessing mobile phones or mobile internet and the barriers they face. The chapters on northern Lebanon and Iowara, PNG, integrate the thematic areas that were particularly relevant: the effects of COVID-19 on connectivity and the use of mobile phones to manage climate risks, respectively. More detailed findings from each context can be found in stand-alone reports on [northern Lebanon](#), [Iowara, Papua New Guinea](#) and [Bor, South Sudan](#).

The second half of the report ([chapters 6-8](#)) focuses on **three thematic areas** that were explored in more than one context: financial well-being, digital leisure and MDH. Each chapter outlines how the research participants experienced the theme and the implications for humanitarian organisations, MNOs, digital service providers and donors and governments.

The report ends with overarching **conclusions and recommendations** ([chapter 9](#)). Specific recommendations for each humanitarian context and thematic area can be found at the end of each chapter ([chapters 3-8](#)).



Drawing heavily on the qualitative analysis, these chapters outline how people use mobile phones in each of the contexts, who is excluded from accessing mobile phones or mobile internet and the barriers they face.



This research is aimed at policymakers, mobile network operators (MNOs), humanitarian organisations and others who want to understand the role and opportunities of mobile in humanitarian settings, as well as how they vary across different contexts.

02 Methodology



The research was conducted in three phases, allowing researchers to closely adapt the methodology to emerging findings from each context, both in terms of the research questions that were explored and the tools that were used. In each of the three phases, the GSMA worked with a team of researchers and local research associates from The Research People (TRP) and received a great deal of support from UNHCR colleagues from country and field offices in Lebanon, PNG and South Sudan, as well as the global UNHCR Innovation Service.

It was important to select a range of contexts that would provide different insights into displaced people’s experiences of using mobile phones. The GSMA and UNHCR worked together to identify 16 candidate countries and then shortlisted them

based on: (1) geographic spread and risk factors; (2) interest and capacity of the UNHCR country office; (3) mobile penetration; and (4) humanitarian situation. The teams selected three final contexts: northern Lebanon, Iowara in PNG and the Protection of Civilians (PoC) site near Bor Town in South Sudan.

During Phase 1, key thematic topics for each context were selected based on desk-based research and key informant interviews. During Phases 2 and 3, these thematic areas were explored in depth (along with broader topics of mobile access and use) using interview templates, participatory group activities, survey questions (which were adapted and updated significantly in response to implementation realities) and emerging findings.

Table 1

Thematic topics in the three research study locations

Thematic topics	Northern Lebanon	Iowara, PNG	Bor, South Sudan
Climate change		✓	
COVID-19	✓		
Digital leisure	✓		✓
Financial well-being		✓	✓
Misinformation, disinformation and hate speech (MDH)	✓	✓	✓

Approach

Phase 1

Desk research and key informant interviews

The research began in June 2021 with a detailed scoping exercise to finalise the main research questions and key stakeholders for each study site. Introductory calls were held with the UNHCR country offices and sub-offices. A literature review of 111 documents was conducted to explore existing research related to each of the thematic areas, as well as to understand the displacement contexts and existing research on the use of mobile technology by displaced people in the three contexts. This was complemented by 32 key informant interviews with humanitarian agencies, MNOs and other actors working in the digital humanitarian sector.

Phase 2

Qualitative research with displacement-affected communities

Qualitative research was conducted between January and February 2022. In-country research associates from the three study countries led this phase to ensure the research was contextualised, conducted in the most relevant local languages and to minimise the risk of spreading COVID-19. The research lasted approximately three weeks in each context and involved gathering the following data: service maps, user interviews, non-user interviews, digital day diaries, key informant interviews, user research group tasks and discussions.

Phase 3

Quantitative data collection

The final phase of data collection lasted approximately four weeks in each context and involved collecting data through surveys, user interviews with host community members in lowara and user research group discussions.

Data analysis

Data analysis was multi-stage using MaxQDA, Excel and Tableau. Qualitative data was coded using a collaboratively developed and refined coding framework while quantitative data was analysed using descriptive statistics against the research questions.

The analysis was done collaboratively with the research associates, the research user groups drawn from the communities participating in the research and an external advisory group consisting of one representative from a local NGO in each research context.

Full details on the methodology, including links to the tools used and details on risk management, can be found in the [methodology report](#).



03 Northern Lebanon

Context

Lebanon is facing a complex humanitarian crisis.

For a decade, the country has hosted the most refugees per capita in the world, including an estimated 1.5 million people displaced by the conflict in Syria. Nine in 10 Syrian families and one in three Lebanese families currently live in extreme poverty,⁶ and since 2019 the economic crisis has been compounded by a deteriorating currency, inflation, political instability, an explosion in the Beirut port and COVID-19. For Syrian refugees, these challenging conditions have created an even more volatile environment.

This research study captured the perspectives of Syrian refugees and the Lebanese communities that host them in the Tripoli Metropolitan Area and Akkar Governorate in seven urban locations.⁷ The North Governorate (where Tripoli is located) and the Akkar

Governorate are underdeveloped and economically fragile regions with less infrastructure and higher poverty rates than the rest of the country. It is estimated that a quarter of residents are refugees.

Lebanon has a developed mobile ecosystem with two MNOs, Alfa and MTC Touch, roughly splitting market share.⁸ There are 4.5 million unique mobile subscribers and 2.9 million unique mobile internet subscribers out of a population of 6.9 million.⁹ Internet connectivity in Lebanon is among the most expensive in the Middle East,¹⁰ and repricing in July 2022 increased tariffs by up to four times.¹¹ Nationwide fuel shortages have led to some mobile towers losing power, and in 2022 a plan was announced to **phase out 2G networks**, leaving 3G and 4G. This will likely **impact around a quarter of a million people who only have a 2G connection.**

⁶ UN OCHA. (2021). [Lebanon Emergency Response Plan 2021-2022](#).

⁷ Mina Jardin, Trablous-Ezzeitoun, Trablous-Alqubba, Halaba, Berkayel, AlMehamara and Benien

⁸ GSMA Intelligence.

⁹ GSMA Intelligence.

¹⁰ UNHCR. (2020). [Displaced and Disconnected](#).

¹¹ Reuters, Beirut. (2022). ["Lebanon telecom price hikes threatens migrants' link to jobs, safety"](#). Al Arabiya News.



Population

 North and Akkar Governorates

Lebanese host community

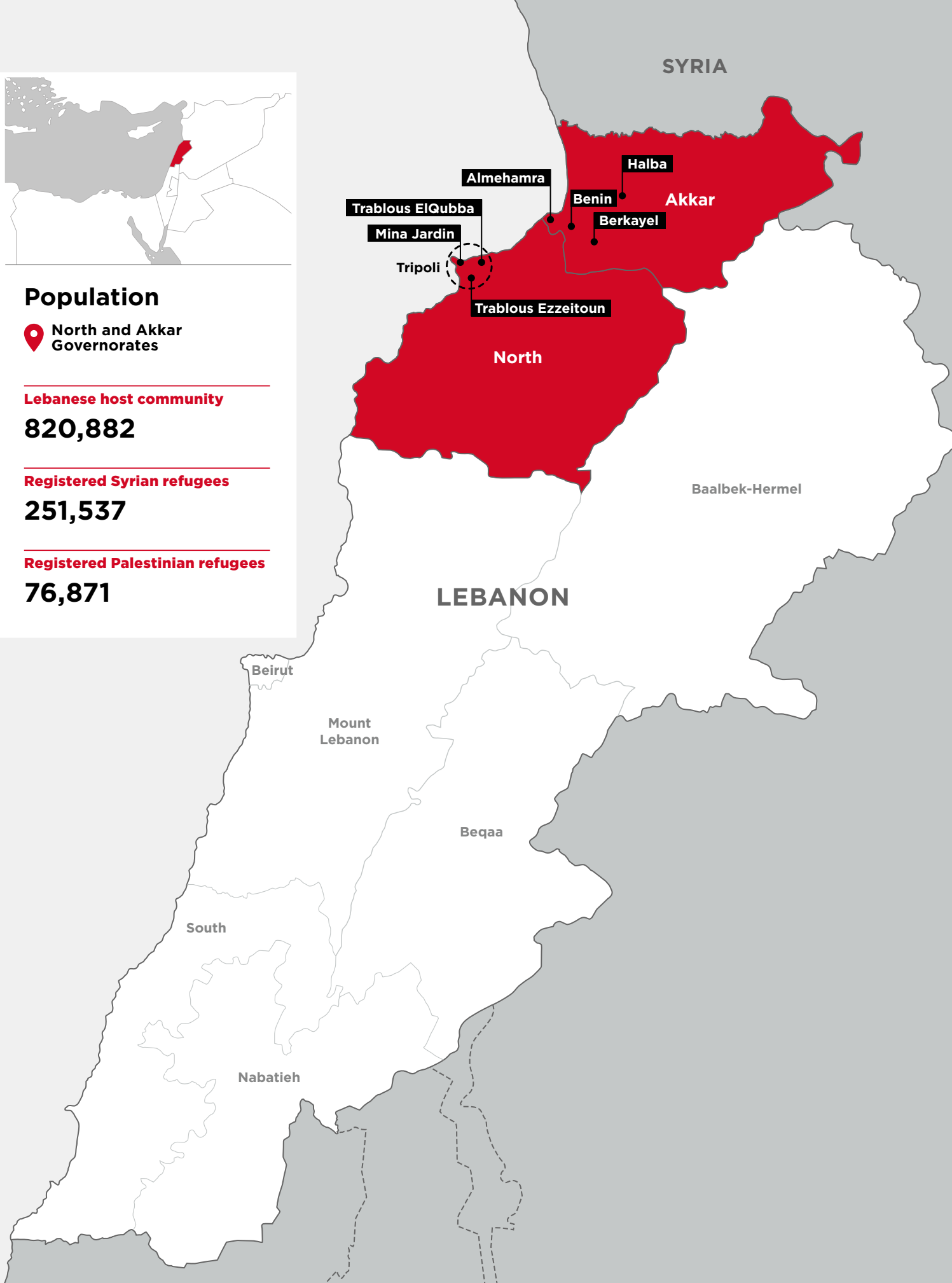
820,882

Registered Syrian refugees

251,537

Registered Palestinian refugees

76,871



Mobile access

In interviews, Syrian refugees said that **mobile phones were central to their lives**, and that they purchased their phone soon after moving to Lebanon to communicate with their friends and families or to register for humanitarian services. Similar research has found that **households rank mobile phones as important an asset as identity documents**.¹²

Households typically owned two to three mobile phones with members taking turns using them. **Most people owned an internet-enabled handset**

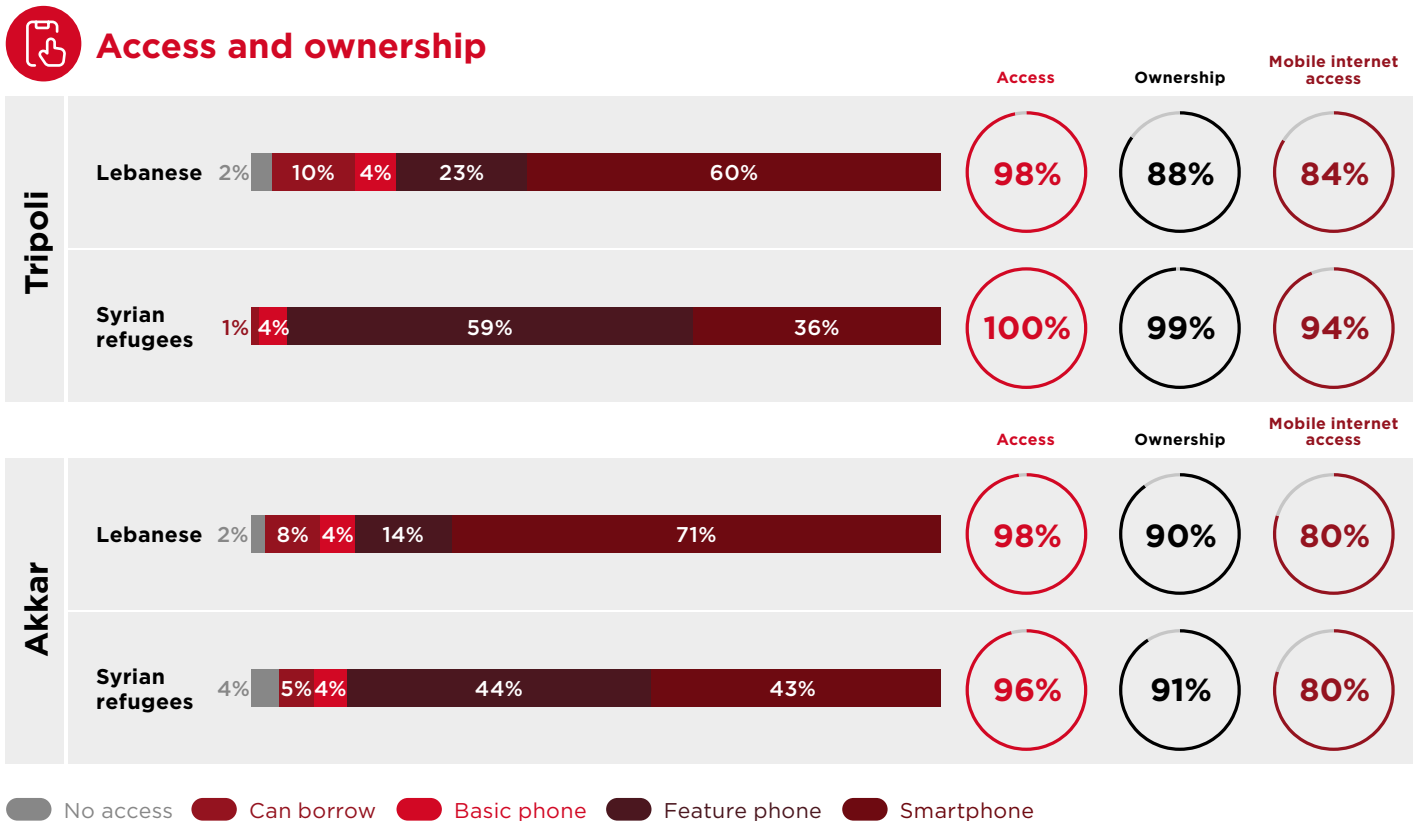
(smartphone or feature phone). Host community members were much more likely than Syrian refugees to own smartphones, and **if 2G networks are shut down, the four per cent of survey respondents who still rely on basic phones will likely be cut off from connectivity** if they cannot upgrade their handsets.

“As soon as I arrived to Lebanon, I got a phone to be able to register with the UN. I came in early 2013.”

- Female Syrian refugee, Akkar

Figure 2

Mobile ownership and access by research location



Q: What kind of phone do you personally own? (None, Basic phone, Feature phone, Smartphone);

Q: Do you have access to someone else's mobile phone? Base: All respondents: Akkar (Refugees: 210, Lebanese: 210), Tripoli (Refugee: 209, Lebanese: 211)

Q: Do you use mobile Internet (social media, apps, and websites like WhatsApp, Messenger, Facebook, etc)?

¹² Uzelac, A. et al. (2018). The untapped resource: Protecting and leveraging refugee social capital in protracted displacement. Clingendael.

Digital exclusion

High levels of mobile access and ownership (Figure 2) mask the digital exclusion of women, older people and people with disabilities. **Although there was only a small gender gap in mobile phone ownership, women were much less likely to have internet access.** Syrian women in Tripoli, for example, were 80 per cent less likely to own a smartphone than their male counterparts. Interestingly, everyone who said their SIM card was registered in the name of an NGO was a woman, indicating that the humanitarian

sector could play an important role in facilitating digital inclusion for women. Older people and people with disabilities were also less likely to own a mobile phone than younger people or those without disabilities. While rates of phone sharing were high among households in these groups, **people who do not own a mobile phone are less able to access information or communicate with friends and family whenever they need or want to.**





Digital diary of a Syrian refugee in northern Lebanon

Fatema* is a 36-year-old Syrian woman with a smartphone (Samsung 21C) who lives with her family in Akkar. She is the primary caregiver for her son who lives with a disability. She recently started a home-based small business making dairy products. Her diary captures the different ways mobile phones are used in her community for communication, education, seeking humanitarian assistance and building a new business.

**Not her real name*

Day 1	How you used your phone	Detail
Morning	I used WhatsApp.	When I first woke up, I communicated with my family and relatives on WhatsApp. I also spent a bit of time on Facebook checking some posts.
Afternoon	My son had school online, so he used my phone to study.	I helped him read as well because he has some eyesight issues. Similarly, my daughter also has her online lessons.
Evening	Spent some of my free time on WhatsApp and Facebook.	I was able to get in touch with friends and family. Also, because I recently started working on a new project for myself - making dairy and cheese products - I was told that it would help to promote it and share about it on Facebook, so I spent some time doing that.
Day 2	How you used your phone	Detail
Morning	When I woke up today, I sent some good morning messages and greeting texts. After that I opened Facebook where I read a bit about the economy.	My morning reading is very important to stay updated on what is happening in the country and to stay informed, especially about the economy and the USD/Lira rate, which is changing day by day.
Afternoon	I tried this afternoon to get in touch with the UN.	I think I tried around 40 times to call, but unfortunately no one answered back. The call never connected. It can be frustrating to want to connect and talk to someone that you can't reach.
Evening	I connected a bit with friends and family over Facebook and WhatsApp.	It is very good that we are able to connect and communicate with the people that are close and far. However, what is making it harder is that the coverage is becoming weaker by the day because of the electricity problems. We get it for an hour in the morning, and at night it will be gone soon. This is causing us a lot of issues, as we can't charge our phone or use the internet.
Day 3	How you used your phone	Detail
Morning	In the morning when I woke up, I spoke with my relatives over WhatsApp.	I also contacted some relatives of mine to go over and visit them. When I was at their place, I was able to connect to the internet again and I used my phone there to talk to some friends.
Afternoon	In the afternoon, I called my husband.	I was also asked to open a page on Facebook and Instagram for the new project that I am hoping to embark on.
Evening	I spent some time on Facebook and WhatsApp.	I looked at different pages to check how my project page should look, I also communicate with friends and family.

Mobile use

Figure 3

Mobile phone use among Syrian refugees in Akkar and Tripoli



The digital world of displacement-affected communities in northern Lebanon

The study identified **a broad range of phone uses, a sign of the important role mobile phones play in peoples' lives in northern Lebanon**. These included calling, video calling or messaging friends and family, taking videos and photos and using the handset as a torch (flashlight). While many people reported using the internet and social media, internet access was neither ubiquitous nor always readily available. Forty-one per cent of Syrian refugees and 24 per cent of host community members surveyed would like to use the internet more than they currently do.

Mobile phones were primarily used for communication. For the most part this was with friends and family, which was especially important during COVID-19 lockdowns (see Box 2). Many Syrians spent hours every day calling, texting and video calling, allowing them to **maintain day-to-day relationships with family members in Syria**. **WhatsApp** was the most widely used and popular mode of communication for both Syrian and Lebanese respondents.

Mobile phones were also used to interact with humanitarian service providers. Survey respondents stated that they were happy to receive SMS messages from humanitarian organisations because they were free of charge. However, they preferred to respond using WhatsApp whenever possible. **They also preferred to access humanitarian information on social media platforms or through personal communication rather than official websites.**

Frequent electricity cuts have meant that many people rely on their **phones for entertainment** rather than TV, including to watch series, news and sports. Both Syrian refugees and host community members commonly use Facebook and YouTube for entertainment, learning languages, watching motivational videos and discovering life hacks and skills.

Both the refugee and host communities were active on social media, although the ways they use it seem to be quite different. Syrian refugees tended to have a small public digital footprint and fewer contacts, with **most of their online activity concentrated on their own communities**. Many people used an alias or a nickname (such as "Abu Fares", the father of Fares) to conceal their identity.



Concerns, frustrations and barriers

Many Syrian refugees were suspicious of social media due to the long history of censorship and surveillance in Syria. Concerns over being watched online have led some to **choose to only engage heavily with a limited number of people**. Women were particularly concerned about revealing their names, photos or identity over social media. Many people also discussed **fears of experiencing abuse, confrontation or hate speech online**.

There were also concerns about the negative consequences of using mobile phones. **More than 20 per cent of users had been targeted by scammers, almost two-thirds of whom experienced direct harm**. People reported adapting their mobile use and behaviour to protect themselves.

Despite high mobile penetration in both the refugee and host communities, there were persistent barriers to mobile ownership, internet access and use among some groups. These included:



Costs

The deteriorating economic situation and widespread poverty in northern Lebanon have increased financial barriers to mobile access, ownership and use.



Connectivity

Only 54 per cent of survey respondents had mobile network coverage at home. Slow networks were cited as a key barrier to internet use in both locations and by all groups.



Charging

Fuel shortages and frequent electricity cuts have made it more difficult for users to charge their mobile phone batteries reliably.



Literacy and digital literacy

For some users, particularly older people, a lack of literacy or digital skills limited their access to and use of mobile phones.



Social barriers

For women, obtaining family approval was the second greatest barrier to using a mobile phone, after cost.



Northern Lebanon: conclusions and recommendations

Mobile technology was readily available and widely used in northern Lebanon, both by Syrian refugees and the Lebanese communities that host them. Access was not uniform, however. Groups traditionally at risk of being marginalised were less likely to have digital access, and the increasingly fraught economic situation has been pricing people out of connectivity. Those who have a mobile phone considered them a vital part of their day-to-day lives and have created digital worlds in which they connect with friends and family far away, enjoy leisure or down time and engage with humanitarian services and information, especially in the wake of the COVID-19 pandemic (see Box 2).

While people were keen to use the internet to find information, spend down time and access services, there was a great deal of concern and hesitation about the potential risks and harms of being online. This was especially true among Syrian refugees who worried about sharing too much information about themselves online and have deliberately curtailed the boundaries of their digital worlds. Since this protective behaviour is a response to broader concerns about personal security and intercommunal harmony, it is not something that is likely to be resolved online.

Recommendations

For humanitarian organisations:

- **Humanitarians** should consider the ways in which they share information with people in need of their services. In particular, they should recognise the concerns of Syrian refugees about the types of information they feel comfortable or uncomfortable sharing online, and communicate with communities through preferred channels, such as WhatsApp. It is particularly important that people have the choice to access humanitarian assistance through offline channels without being required to share personal information online.
- Similarly, **humanitarians** should explore ways to ensure that preferred communication channels are used. WhatsApp used free over Wi-Fi is the preferred mode of communication for both refugee and host communities, rather than traditional hotlines that require the use of increasingly expensive networks. An example from Lebanon is the Solidarités International Solis bot, which uses WhatsApp as an automated messaging platform for the communities they serve.¹³

¹³ Pegram, G. (2021). "In conversation with Solidarités International: Artificial Intelligence in a humanitarian context". GSMA.

- Importantly, **humanitarians** should coordinate communication across **all** sectors to ensure a range of channels are harmonized and consistent for those receiving assistance. This could be done through the **various sector Working Groups**¹⁴

- **Humanitarians** should acknowledge the role they could play in supporting the digital inclusion of Syrian women, given that every survey respondent whose SIM card was registered in the name of an NGO was a woman.

- **Humanitarians** should consider what programming they could implement to increase digital access and inclusion in the communities they serve. Examples may include digital literacy training (it would be important to include training on recognising and responding to online harms) or providing sites where communities can charge their phones and access free Wi-Fi. This would help to overcome some of the key barriers identified in the research.

For donors:

- **Donors** should investigate ways to provide funding to programmes that facilitate digital access and inclusion in Syrian refugee and Lebanese host communities. Funding earmarked specifically for digital development and inclusion could have significant positive impacts on the lives of people who are digitally excluded.

For humanitarian organisations and MNOs:

- **Humanitarians** and **MNOs** should consider partnerships to raise awareness of digital risks and how to mitigate them, especially scams and online harms. For example, humanitarians could monitor and track rumours to identify common scams and share information about them with communities, both online and offline.¹⁴ See chapter 8 for more details.

For government/regulators and MNOs:

- **Regulators** and **MNOs** should investigate how they could provide more predictable connectivity within current economic constraints. As the 2G network is phased out, it will be vital that connectivity remains reliable and predictable for all customers.

For all stakeholders:

- **Government/regulators, MNOs, humanitarians** and **donors** should consider ways that barriers to affordability can be overcome, particularly given increasing economic pressures and the recent rise in tariff prices. This might include reducing some taxes, providing tailored bundles for people receiving humanitarian assistance or using donor funds to cover some costs for those most in need.

- **Humanitarians, MNOs, digital providers** and **government/regulators** should work together to identify who will be affected by the phase-out of the 2G network and limit the repercussions of this decision. It will be essential that this is communicated to affected mobile customers as early as possible. It may also present a commercial opportunity for MNOs if customers are given the opportunity to upgrade to 3G- and 4G-enabled handsets through tailored packages and bundles.

- **All stakeholders** should understand who has access to mobile phones and who does not, especially internet-enabled ones. Only paying attention to the high overall access figures masks disparities among groups already at risk of being marginalised.

➔ **More information about findings in northern Lebanon can be found here.**

¹⁴ Internews. (2019). *Managing Misinformation in a Humanitarian Context: Internews Rumour Tracking Methodology*.

The importance of connectivity during COVID-19 in northern Lebanon

The COVID-19 pandemic had a severe impact on Lebanon. Beyond the health implications, economic hardship pushed tens of thousands into extreme poverty.¹⁵ Mobile technology played a critical role during this challenging period.

Importance of mobile technology

Restrictions on movement were in place in both Tripoli and Akkar during the pandemic, which meant mobile technology became a vital part of everyday life. Six in 10 people reported increased phone use during the lockdowns. Schools moved online. Some used their mobile phones to request help from family or friends with shopping for their basic needs while those who could afford to ordered from online food delivery services. Many Syrians and Lebanese reported that using mobile phones for digital leisure contributed to their well-being and reduced stress.

“It helps me relax and teaches me new things.”

– Male Syrian refugee, Akkar, Lebanon

The pandemic also exacerbated the risk of digital exclusion. This was evident among people who struggled to afford to charge or buy data for their phones and was felt more acutely in Syrian households. For example, despite reliance on mobile education during lockdowns, only 22 per cent of Syrian households accessed it compared to 42 per cent of Lebanese households.

Mobile technology in humanitarian services

As COVID-19 spread, the humanitarian sector had to change how it operated. In Lebanon, in-person humanitarian activities were suspended, except for essential services. Many Syrian refugees felt confused about how to access remote services, which was likely made worse by interrupted connectivity. Eleven per cent of respondents used mobile phones to actively look for information from humanitarian organisations, but most waited for direct communication on new ways to access services. Still, Syrians reported new and

widespread use of WhatsApp groups to engage with their neighbourhood and community or humanitarian organisations.

Information, vaccines and services

Many Syrians and Lebanese had limited options for COVID-19 testing or treatment, making online information critical. Most people used their phones to seek information. Humanitarian agencies shared information on common signs and symptoms via SMS and WhatsApp, and many Syrians reported sharing information on prevention and protection with their families back home. A great deal of information about COVID-19 on social media was believed to be misinformation. Syrians said they had trusted UNHCR and other humanitarian organisations as their main source of information, rather than national authorities or public news.

The lockdown, which imposed restrictions on movement for unvaccinated people, encouraged many to seek vaccination but, for refugees, a significant gap remains.¹⁶ Almost everyone we interviewed had received information on their mobile phone from humanitarian organisations, particularly UNHCR, promoting the COVID-19 vaccine and providing instructions on how to register.

“UN directly sent us the information messages, and they were sent via both WhatsApp and direct SMS services. There was also an email that was shared and spread over Facebook whose main source was also the UN, so we were able to directly trust it.”

– Male Syrian refugee, Akkar, Lebanon

¹⁵ World Bank. (2020). Compounding misfortunes.

¹⁶ Kaloti, R. and Fouad, F.M. (2022). “The politics of COVID-19 vaccine equity among refugee populations in Lebanon”. *Journal of Global Health Economics and Policy*, 2.



04 Iowara, Papua New Guinea

Context

Papua New Guinea (PNG) is a **diverse lower-middle-income country that faces several humanitarian risks**, including economic insecurity, political tensions and high risk of climate hazards. As of August 2022, UNHCR estimated there were 11,800 refugees and asylum seekers in PNG, largely from West Papua, Indonesia.¹⁷ The research site, **Iowara, Western Province, is a refugee settlement** consisting of 10 villages. It is home to approximately 2,500–3,000 West Papuan asylum seekers and refugees¹⁸ living alongside a host community of around 200 people. West Papuans across PNG consider themselves “forgotten refugees of the world”, as they have been offered very little assistance from the humanitarian community.

Mobile use in PNG is growing but is far from universal, especially outside urban areas. GSMA Intelligence data indicates that 35 per cent of the population have a mobile phone and 21 per cent have a mobile internet connection.¹⁹ **The country’s digital ecosystem faces many challenges.** Physical barriers such as challenging terrain, natural hazards and low population density can make it prohibitively expensive for MNOs to build and maintain mobile infrastructure. Eighty-seven per cent of the population live in rural areas, inhabiting 600 islands.²⁰ Additionally, with more than 800 languages spoken in PNG and low levels of digital literacy,²¹ it is complicated to create digital products and services that can be scaled across the country.

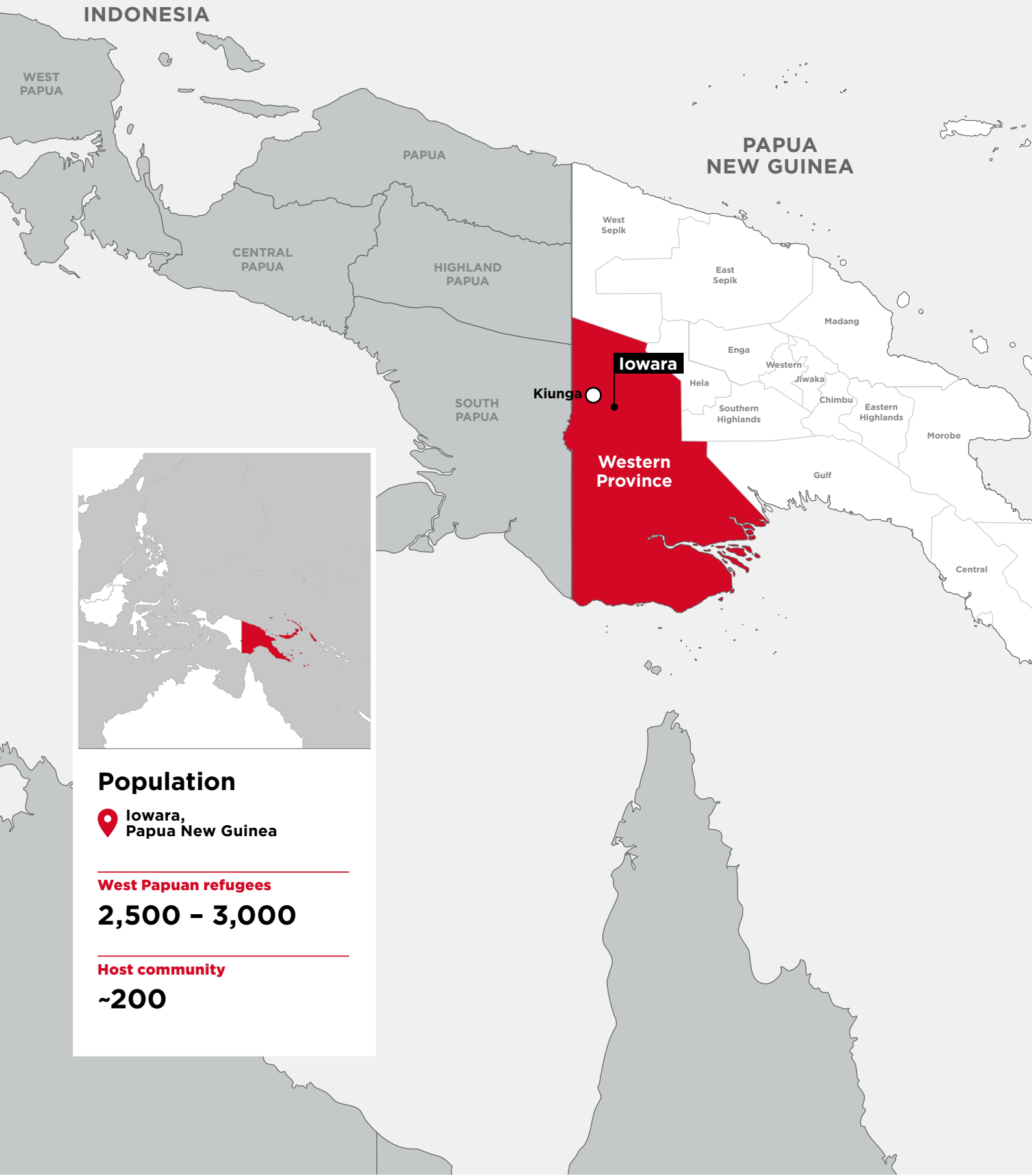
17 UNHCR. (2022). “Where we Work: Papua New Guinea”.

18 While some refugees have been given access to naturalisation, official numbers are unavailable.

19 GSMAi data, 2022.

20 DFAT. (2021). [Papua New Guinea Country Brief](#).

21 Nique, M. et al. (2019). “[Papua New Guinea: How can mobile be harnessed for digital transformation?](#)” GSMA Mobile for Development Blog.



Population

 Iowara,
Papua New Guinea

West Papuan refugees

2,500 - 3,000

Host community

~200

Mobile use in Iowara

While mobile ownership in Iowara was much higher than the national average at 89 per cent, mobile use was relatively limited and intermittent overall. In fact, 26 per cent of mobile phone owners had not used their phone at all in the past three months.

This high penetration rate is likely due in part to a recent distribution of basic phones by Save the Children PNG (see Box 6).

Users tended to rely on their mobile phones for simple tasks like calling or messaging rather than more advanced functions. Interviews suggested that a small group of individuals with higher income levels sometimes served as “digital connectors”. **People rely on these fellow community members and their mobile phones to perform more advanced tasks, such as paying school fees.** These people were important figures that the community depended on to mediate financial transactions and relationships with the world beyond Iowara.

“Anything regarding their children from school, they call me. They tell me they need this, so they bring cash, I also do SMS banking.. [...] When children need money in schools, parents come with money asking can you transfer me K 100.00 or K 200.00 or K 1000.00? I do that too. It’s a very important part.”

- Community health worker in Iowara



Mobile use

Figure 4
Mobile use among refugees in Iowara, PNG

Iowara
Papua New Guinea

ONLINE

 Money transfers

 Social media

 Information

OFFLINE

 Texting

 Calling

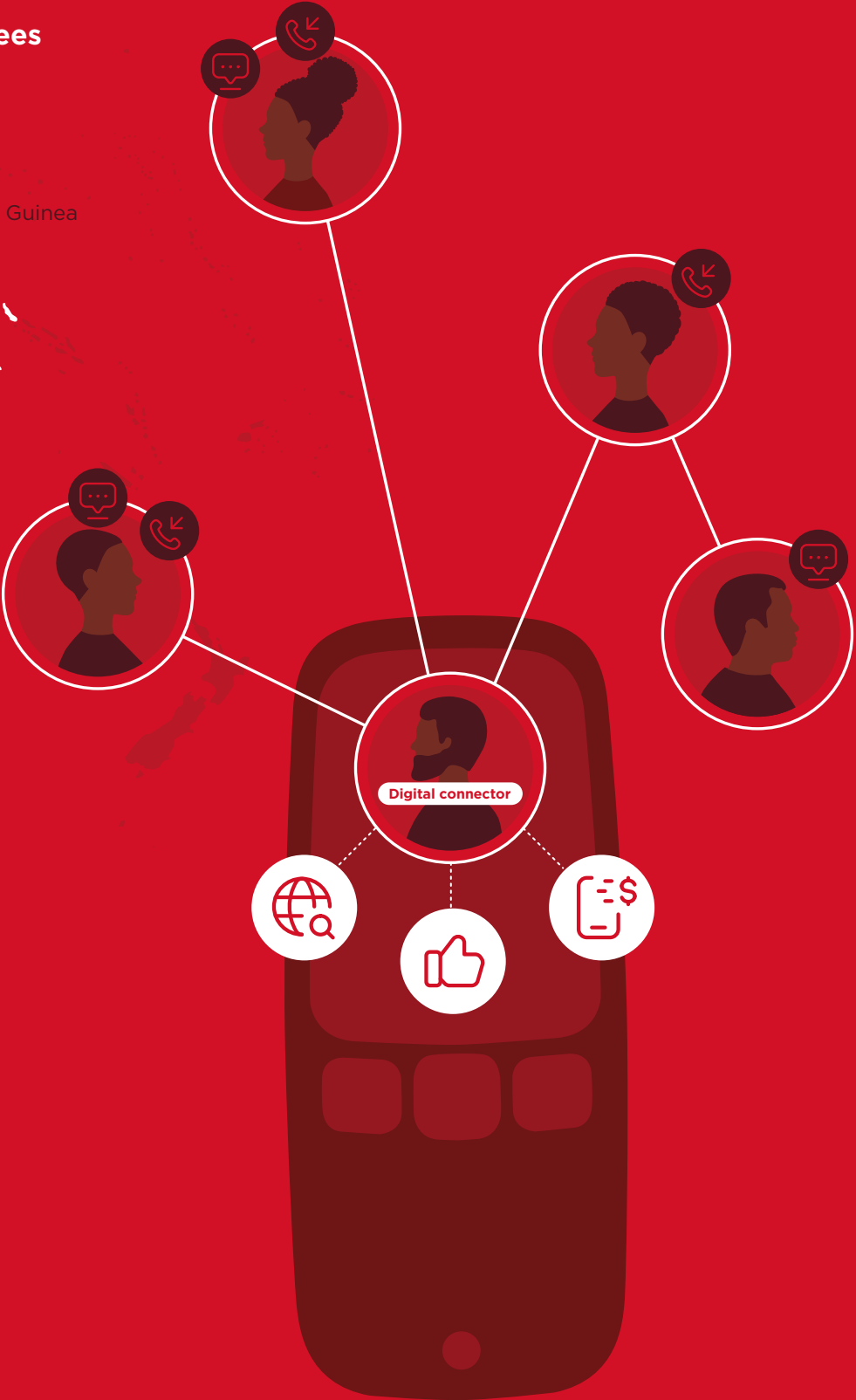
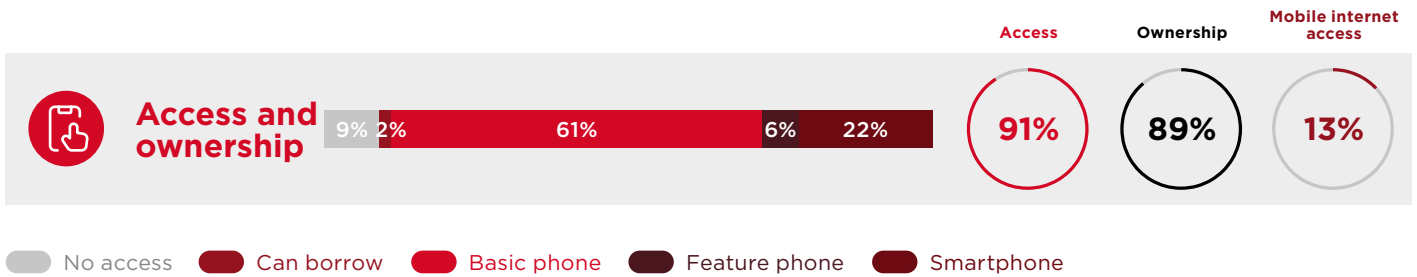


Figure 5

Mobile access and ownership in Iowara



Q: What kind of phone do you personally own? (None, Basic, Feature, Smart)

Q: Do you have access to someone else's mobile phone?

Q: Do you use mobile Internet (social media, apps, and websites like WhatsApp, Messenger, Facebook, etc)?

The most common use of mobile phones in Iowara was **keeping in contact with family and friends in Indonesia or across PNG**, with 94 per cent of users reporting that they used their phones in this way. The purpose of the calls was usually to maintain kinship and familial connections, and sometimes for economic support.

Despite the prevalence of basic phones with limited functionality, fun and entertainment were cited as a primary use of phones in Iowara. Respondents either relied on basic phones to play games or shared smartphones to access films and music. Some interviewees suggested that music and films were both a way to connect with their home culture in Indonesia and to switch off and relax.

Eighty-five per cent of refugees in Iowara engaged in some form of farming and many expressed grave concerns about the impacts of climate change. However, mobile phones had not yet played a role in how they address these challenges. Eighty-three per cent of respondents had not used their phone to access information on the weather or climate-resilient farming techniques. Although there was some appetite for exploring how mobile technology could be used in this way, low levels of digital literacy and reliance on traditional trusted (offline) sources of knowledge mean this will need to be approached thoughtfully.

While the refugee community recognised the important role of mobile technology, members also expressed concerns about the trustworthiness of mobile services and MNOs, and **many felt there was a high risk of being exposed to scams.** These concerns are elaborated in chapter 8.





Digital diary of a refugee in Iowara

Maria* is a 27-year-old female smartphone user who lives with her father and brother. She is self-employed as a farmer and family is central to her life. She takes responsibility for a younger brother who studies in Port Moresby and has other family members who live even farther away with whom she wants to maintain close ties.

**Not her real name*

Day 1

	How you used your phone	Detail
Morning	I used Facebook.	My aunty from West Papua sent me a message that today is our grandpa's birthday. I felt happy talking with my aunt and I wished my grandpa happy birthday. They would ask about our situation here, how our family is doing, whether anyone is sick, etc. We also would ask them about the condition of our grandfather so we can maintain our connection and communication as families.
Afternoon	I listened to music.	Music makes me feel relaxed and happy.
Evening	I watched a movie and I used the internet data to download some movies.	The movie was in Bahasa. It is an Indonesian movie about a child who was being kidnapped. All of us watched the movie together, myself, my two nieces and their father and my father. Father does not actually watch it, but he would just listen to hear Bahasa spoken in the movie. When we watched it, it helped us to think about our families in West Papua and the life there in our villages.

Day 2

	How you used your phone	Detail
Morning	Phone off	Battery was dead. This affected my communication with my family. For instance, when the battery is flat, I cannot call my family in Kiunga.
Afternoon	Phone still off.	
Evening	I called my brother.	I was able to charge using a neighbour's solar charger. I called my younger brother in school in Port Moresby and he told me his phone was malfunctioning. It made me feel sorry for him. It is important for me to call him because we do not have our mother with us today, so he looks up to me as a mother. Every time he wanted to call or send a text, he would only send it to my phone. It is important also because he is in school and far away from us, so talking to him is always important.

Day 3

	How you used your phone	Detail
Morning	Going through the phone gallery and looking at the photos.	I saw my mum's photos and it made me feel sad because she had passed away already. The photos bring back memories of her.
Afternoon	I had a phone call with my boyfriend.	My boyfriend called and told me he was drinking. I got mad at him.
Evening	I had a phone call with my cousin.	My cousin said her daughter was sick, and I felt sorry for my cousin's daughter.

Digital exclusion

While mobile phone penetration rates appeared to be quite high in Iowara, these figures masked disparities in mobile access and use.

Survey data showed that **mobile ownership among women is almost even with men**. However, only 57 per cent of women had used a phone in the past three months compared to 76 per cent of men – a **mobile usage gap of 25 per cent**. There was also a significant gap in smartphone access. In interviews, women expressed more hesitancy about using mobile phones and revealed two main reasons for their comparatively lower mobile use. First, mobile use was seen as contributing to extramarital affairs and family breakdown, ranking second highest among users' concerns (22 per cent of users). Likely related to this fear, gender-based violence was the most-reported concern about the potential impacts of mobile use (24 per cent of survey respondents). This reflected a broader problem in PNG where as many as two-thirds

of women experience violence at home. However, the relationship between gender and mobile access is complex and would benefit from further research.

Old age also appears to affect mobile access and use. Men and women over the age of 60 were less likely to be phone users. It was this age group that other community members reported as likely to be marginalised by a shift towards greater reliance on mobile technology.

People with disabilities appear to be less likely to use a mobile phone. A significant proportion of the refugee population reported having a disability (18 per cent). A smaller number of this group owned a mobile phone and, importantly, none of them used the internet. This may indicate they are at risk of being excluded from the benefits of digital technology.

What are the barriers?

People in Iowara faced many barriers to accessing and using mobile phones. Twenty-two per cent of mobile phone owners in the sample had not used a phone in the past three months.

Those with limited access to mobile phones or the internet pointed to five main barriers they faced in addition to the gender-specific barriers outlined above:



Low purchasing power

The cost of purchasing a phone was the main reason people did not own a mobile phone (reported by 75 per cent).



The cost and difficulty of charging phones

Interviewees largely relied on solar-charging points that are regularly compromised by overcast weather.



Language barriers

Users who did not speak English often reported being unable to perform functions beyond phone calls.



Low digital literacy

Sixty-four per cent of users who did not access the internet cited “not knowing how to use it by themselves” as the main reason.



Social barriers

Women faced particular barriers in accessing and using mobile phones, as outlined above, due to concerns about family breakdown and gender-based violence.

“I don't know how to use it so I'm worried I'll spoil it.”

– Female West Papuan refugee, Iowara, PNG

Iowara, Papua New Guinea: conclusions and recommendations

While digital development in Iowara is still nascent and users' digital worlds are relatively small, mobile technology presents significant opportunities. To fully realise these opportunities, serious work needs to be done, both with users directly to develop digital literacy, and on the structural side to increase connectivity infrastructure in the region and tackle social and economic barriers to mobile ownership and use. Existing community structures, trusted leaders and those already helping their neighbours to connect should be leveraged to achieve these aims. By working together to dismantle local barriers, humanitarian organisations, digital service providers and MNOs can expand mobile access and use, enabling refugees and local populations alike to use mobile phones safely and autonomously.

Recommendations

For humanitarian organisations:

- **Humanitarian organisations** should recognise that they are well positioned to improve the digital literacy of marginalised groups and support targeted interventions for women, older people and people with disabilities. Community members who are already helping their neighbours can be trained to support others in developing digital skills to use their mobile phones autonomously.
- Training should also focus on accessibility features, like screen readers, which might help older populations, people with disabilities and people with low literacy levels.
- Functional literacy also has a direct impact on users' ability to use mobile technology effectively and safely. **Humanitarian organisations** can support literacy and education programming alongside digital programming. Actors designing digital programming should take low literacy levels into account by ensuring that icons and other visual aids are available.
- **Improving financial literacy and mobile financial literacy** are an important component of mobile-money enabled cash assistance programming. Ensuring users are comfortable and familiar with the products and services available can advance financial inclusion and reduce risk of harm.
- **Humanitarians** should also mainstream gender programming in any digital intervention, given concerns over gender-based violence. This training should include men and male gatekeepers to explore the uses of mobile and socially acceptable use cases for women. This would help to combat perceptions of "misuse" for extramarital affairs and promote the benefits and positive use cases for women. For example, Save the Children found that distributing phones as part of cash-based assistance may have changed the perception of mobile phones and mobile ownership in the short term.
- Climate-smart agricultural practices informed by data including satellite imagery, weather information and other sources could boost farmers' resilience to climate change. Accessing information on such practices may benefit communities in areas where network connectivity is strong, along with information on soil and water quality and climate-resilient crops. These practices will support how

farmers adapt to and mitigate the challenges posed by climate change and increase their productivity and profitability. However, any digital intervention should be accompanied by in-person support and complement traditional approaches, as communities expressed some resistance to the idea of receiving farming support via mobile phones.

- **Humanitarians** could explore providing solar charging kits or supporting solar entrepreneurs to set up charging points in central market areas.

For MNOs and digital providers:

- **MNOs** could consider additional public awareness efforts on fee structures and available bundles to reduce financial barriers to mobile use.
- **MNOs** could also consider partnerships with development and humanitarian organisations to provide digital literacy training, given the vital importance of connectivity in PNG and the potential for long-term return in terms of increased revenue.
- While tower construction, maintenance and fuel remain mobile infrastructure challenges in PNG due to geographic barriers and low population density, **MNOs** should communicate these challenges clearly to raise public awareness.

For donors:

- Some MNOs in PNG are already engaging in alternative financing models with government for tower construction and infrastructure maintenance. Considering the key role connectivity plays, **donors** could consider providing additional support to this type of initiative.

For all stakeholders:

- **Digital service providers and humanitarian organisations** should consider how to work together to build the digital ecosystem. Service providers could work with merchants to ensure digital payments are accepted, and humanitarian organisations could help communities learn how to access and use digital savings and digital payments. This has

a dual benefit of reducing cash-out fees for users, connecting them directly to the goods and services they need and increasing financial inclusion. Over time, this can have broader impacts on well-being.

- **MNOs, digital service providers and humanitarian organisations** should build effective collaborative partnerships to ensure they leverage one another's strengths. Challenges around identity documents (IDs), cash programming logistics, connectivity and power, for example, can be solved more effectively if partners are working together. Lessons in digital programming should be shared regularly between stakeholders.
- **Stakeholders** should be aware of the growing mistrust and discontentment towards digital service providers, with community members in PNG noting concerns around Facebook in particular. Authorities like NICTA could be engaged to help combat misinformation and scams on social media. Additionally, stakeholders could consider partnerships to provide training on digital protection and identifying scams.
- Lack of IDs is a barrier to accessing financial services and cash-based humanitarian support for displaced populations. **Stakeholders** should work together to explore digital identity solutions to creating verifiable forms of identity for both humanitarian support and to access other services.
- **Government** could consider advocating for more translated content from global players like Google and Facebook to make services accessible in the languages of PNG and the wider Pacific region. While the vast linguistic diversity of PNG poses a significant challenge to making digital services available in all languages, the government could consider advocating jointly with other regional actors for translation into key languages.

➔ **More information about findings in lowara can be found here.**



05 Bor, South Sudan

Context

South Sudan became independent on 9 July 2011 after decades of conflict. Since then, the population has continued to suffer from **conflict and intercommunal tensions**, most notably in December 2013 and July 2016. **Bor, the capital of Jonglei State**, was an epicentre of conflict in 2013 where tribal clashes between Nuer and Dinka groups resulted in the widescale displacement of civilians. Some still reside in an IDP camp – one of many former Protection of Civilians (PoC) camps in the country.²² The camp is currently home to more than 2,687 IDPs (more than 1,047 households, mainly Nuer) seeking protection.²³ Bor County is susceptible to flooding in the rainy season, which can displace residents of the camp into urban centres or neighbouring highlands.²⁴

IDPs in Bor are economically vulnerable with extremely limited opportunities to work due to being confined to the camp. All are dependent on humanitarian aid and remittances from relatives within and outside South Sudan.

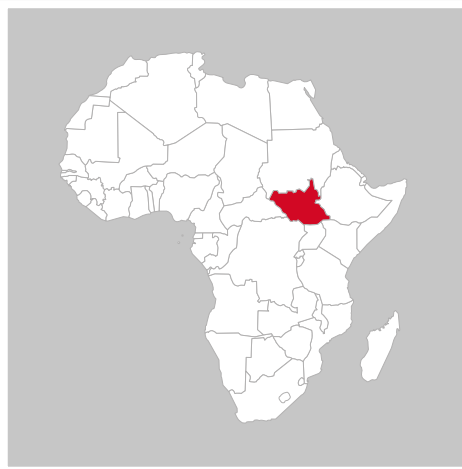
South Sudan has **one of the lowest rates of mobile access and connectivity in the world**, with market penetration of just 22.12 per cent.²⁵ Connectivity and infrastructure vary across the country, with transport conditions, fuel prices and conflict all creating major barriers for MNOs to implement and maintain infrastructure.

22 REACH. (2022). Infographic: "South Sudan Displacement Crisis: Bor Town Port and Road Monitoring – Bor South County, Jonglei State, South Sudan (May, 2022)".

23 IOM/DTM. (6 May 2022). South Sudan Biometric registration update: Bor IDP Camp (December 2021).

24 IOM DTM event tracking report.

25 GSMA Intelligence, 2022.



Population

Bor, South Sudan

Bor Town
300,000 Approximately

PoC camp
2687

Mobile access and ownership

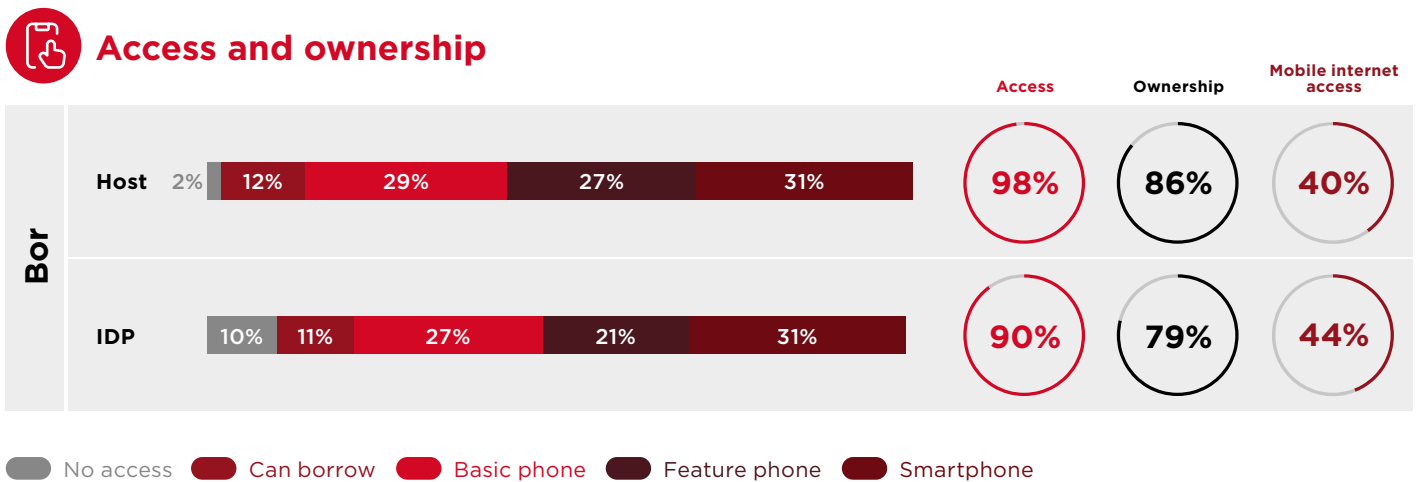
As the Jonglei state capital and with close proximity to Juba, Bor residents are likely to have more access to phones. Moreover, conflict and seasonal flooding has led many residents of Jonglei state to move to Bor town for shelter and acquire phones to cope, stay informed and keep in touch with their relatives. Residents of Bor Town, the host community and the PoC camp have strong ties to the diaspora, which

also creates a strong drive to stay connected and prioritise mobile ownership.

Mobile access and ownership in Bor Town and the PoC camp were much higher than the national rate of 22 per cent and smartphone ownership was also high at 31 per cent in both Bor Town and the PoC camp (Figure 6).

Figure 6

Mobile access and ownership in Bor Town and the PoC camp



Q: What kind of phone do you personally own? (None, Basic, Feature, Smart)

Q: Do you have access to someone else's mobile phone?

Q: Do you use mobile Internet (social media, apps, and websites like WhatsApp, Messenger, Facebook, etc)?

Smartphones were most often owned by men and younger people. However, among other groups, basic phones were valued for their affordability, durability, longevity and battery strength.

“Most importantly, basic phones are affordable and easily accessible. Basic phone battery can last for one week after it has been charged.”

- User research group, Bor Town, South Sudan

Digital exclusion

Overall, **mobile ownership was relatively even among men and women of all ages**. However, this data masked several issues of exclusion in Bor.

- **Although the gender gap in mobile ownership was relatively small, women had less access to the internet and less control over their phones.** Several women told researchers that they relied on their husbands to purchase their phones, to replace a lost phone or upgrade an existing phone.
- **Younger women and girls often needed their parents' approval to own a smartphone.** Still, owning a mobile phone is perceived as prestigious, and it was suggested that **some men often want their wives and daughters to own phones as a status symbol.**
- **A significant proportion of IDPs in Bor (22 per cent) reported having at least one disability.** There were lower rates of mobile ownership and lower rates of access to the internet among this group, and a **43 per cent smartphone gap**. People with

disabilities were twice as likely to say that they do not access the internet as much as they would like (24 per cent of those with a disability compared to 12 per cent of those without).

- In the host and IDP communities combined, **older people** had a significantly lower rate of mobile ownership, including a 76 per cent smartphone gap. One explanation is that it was common for older people to associate internet use and digital entertainment with youth.

“Young people enjoy leisure time with phones, while older people use very few applications, especially basic phones for music or songs for leisure.”

- User research group, Bor Town, South Sudan

Barriers

Despite high mobile penetration in Bor Town and the PoC camp compared to other parts of the country, there were still significant barriers to mobile ownership. The three main barriers cited in the research were:



Costs

The vast majority of people in the PoC camp had no source of income and relied on relatives for support. Sixty-three per cent of the host community and 51 per cent of IDPs cited this as a barrier.



Charging

Access to charging was a major barrier to mobile use in both locations. Ninety-seven per cent of users in Bor and 99 per cent in the PoC camp cannot charge their phones from home.



Low literacy and digital literacy

These were emphasised as particular barriers for those in the PoC camp, older people and people with disabilities.

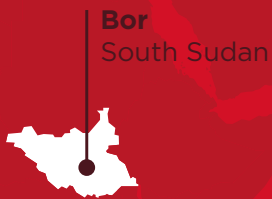
“I’m an illiterate old man who can’t be able to make a call or chat with SMS message.”

- Male IDP, Bor PoC camp, South Sudan

Mobile use in Bor

Figure 7

Mobile use among IDPs in the Bor PoC camp

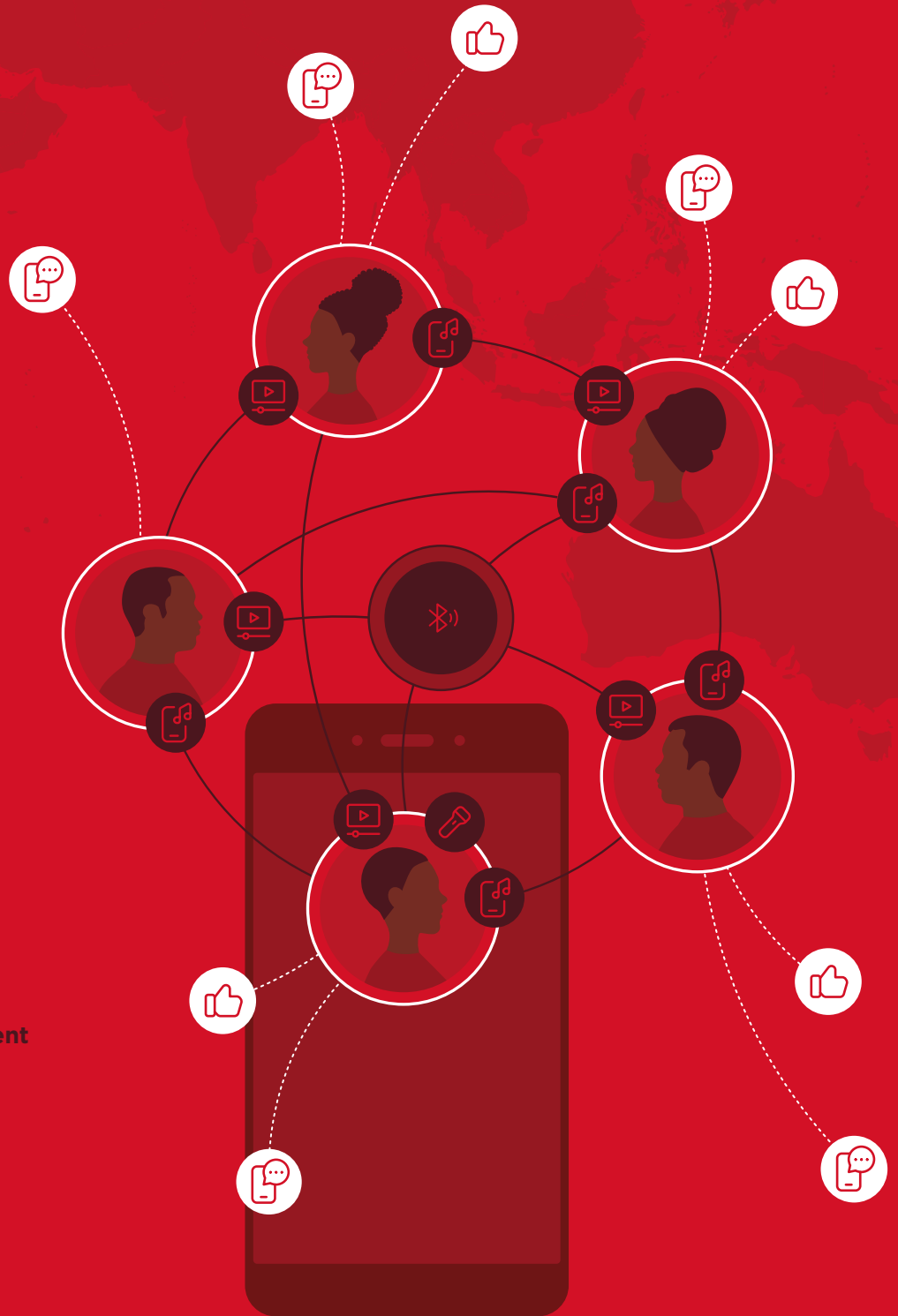


ONLINE

- Social media
- Communication

OFFLINE

- Games & Entertainment
- Music
- Torch
- Bluetooth



People's digital worlds in Bor are characterised by high levels of communication. The most cited use of phones was connecting with friends and family via calls and social media within Bor, in Juba and the diaspora. The diaspora includes those living in refugee camps or those who have resettled in other countries, such as Kenya, Uganda, Sudan, Ethiopia, Canada or the US, where **many have been displaced or migrated in search of work.**

Mobile phones were also often used for digital leisure, **including games, entertainment and music** (60 per cent in the PoC camp; 48 per cent in Bor). IDPs emphasised benefits of digital leisure including alleviating the challenges of unemployment, boredom and confinement. Correspondingly, internet access was higher in the PoC camp (30 per cent) than in town (25 per cent). Nevertheless, the high cost of data meant that **engagement in digital leisure was often offline.** Forty-one per cent of users reported listening to downloaded music, sharing media using Bluetooth sharing tools and watching downloaded videos on their phones. When using their phones to relax, they learned new skills, such as how to extend battery life and navigate settings to minimise costs.

The **torch** (flashlight) function was also a frequently cited use in both sites, with 94 per cent of users in host communities and 78 per cent of IDPs saying they used their mobile phone as a light source. This reflects the limited availability of electricity in people's homes.

Mobile money uptake was low (6 per cent of users had a mobile money account) **despite services being available and a significant theoretical appetite for it.** This was largely attributed to people not having enough money to send via mobile money and the high transaction costs, particularly among informal dealers.

Concerns and risks

While mobile phones have significant benefits, people in Bor shared concerns about false and fabricated information regarding the conflict and peace agreement. **Stories of ethnic, political and tribal conflicts often linger in public discourse for a long time and details are lost or altered with each telling.** There are many fabricated videos and images circulating on social media that depict a false interpretation of events, notably on YouTube, Facebook and WhatsApp groups. Many users, particularly younger people, had seen false information (45 per cent in Bor Town; 31 per cent in the PoC camp) or hate speech (43 per cent in Bor Town, 35 per cent in the PoC camp). Most people who had access to the internet reported seeing false information online, with Facebook being the least trusted source of information.





Digital diary of a female IDP in the Bor PoC camp

Nyatong* is a 26-year-old woman living in the PoC camp. She attended school until primary eight (14 years old) and does not have a job. She owns a smartphone, Tecno Pop 2, and shares it with her brothers and sisters.²⁶

*Not her real name

Day 1

How you used your phone

Detail

Morning	I made a phone call to my brother in Khartoum, Sudan.	I called him to ask about his well-being. He also wants to come to South Sudan and to Bor, so he wants us to send him money. I called to share with him our plans about his travels. I felt good because he said he was well and excited that he would come home.
Afternoon	I logged into Facebook and used Facebook Messenger to talk with my father who is in Ethiopia.	My maternal grandmother is not feeling well. So I called my father to find out how she was doing. I received assurance from my father that she is recovering. I then resumed household chores. I felt good, relieved and shared the good news with the rest of my family.
Evening	I listened to Nuer music (church songs).	I had finished with household activities, was tired and wanted to refresh my mind.

Day 2

How you used your phone

Detail

Morning	I used my phone to communicate with my relatives in Nasir, Upper Nile State.	My relatives wanted to know when my family and I in Bor PoC camp would go to Nasir to visit them there. They asked me in particular to come to Nasir, but I have no money for this visit. I felt good about this call. I would like to see them.
Afternoon	I used my phone on social media – Facebook Messenger and WhatsApp.	I watched more videos for entertainment. After watching the videos, I chatted with friends on Messenger and WhatsApp. I was just trying to entertain myself and to catch up with family and friends through chatting.
Evening	In the evening time I used my phone for communication on WhatsApp a lot.	I talked with my grandfather on WhatsApp who is living in America. He was trying to find out how we are all doing here in the Bor PoC camp. I assured him that we are okay. He promised that he would send us some money. He wanted to send the money through a bank. Unfortunately, there is no bank to send the money to us here in Bor. Maybe he will send it to us through Juba. ²⁷ I felt happy about this communication. At least we have hope.

Day 3

How you used your phone

Detail

Morning	I took my phone to charge at 9:00 am.	I did not make phone calls but took my phone for charging in the morning.
Afternoon	I communicated with my sister this afternoon after I took my phone out of charge.	I spoke with my sister who lives in Kenya about how she is. It was a good call. We are both happy to know about how our family is doing.
Evening	I went online on Facebook, WhatsApp and Messenger to chat with friends.	I spoke with my aunt who is now in Uganda. We were all trying to learn about how our families are doing. It is always good to speak to family.

²⁶ This diary has been edited for readability.

²⁷ Juba is the capital and largest city of South Sudan. JubaExpress is a money transfer service that facilitates overseas remittances.

Bor, South Sudan: conclusions and recommendations

Mobile phone use and connectivity in Bor is higher than in other areas of South Sudan, a reflection of both demand and uneven infrastructure development in the country. People's digital worlds centre around communication and entertainment, both online and offline, and often the two overlap through shared content. **Mobile phones are particularly important for displaced people to connect with friends and family given the importance of connections between the widely displaced South Sudanese population within the country, the region and globally.** Using phones for digital leisure, often offline, is prevalent among residents of Bor who reported that it contributes to their well-being in an environment of high unemployment and lack of opportunity.

Recommendations

For humanitarian organisations:

- **Humanitarian organisations** should recognise that mental well-being and community resilience can be enhanced through interventions that support access to digital leisure and should be factored appropriately into community-based humanitarian programming and local protection activities.
- To facilitate equal access to mobile technology and its benefits, **humanitarians** could consider programming to support digital inclusion in the communities they serve and address the barriers facing women, younger people, older people and people with disabilities. This could include digital literacy training (which should also include training on recognising misinformation and raising awareness of potentially harmful content) or providing Wi-Fi and charging at key locations to help those with Wi-Fi-enabled devices take greater advantage of the internet. However, the impact on local phone-charging services must be considered, and humanitarians should work with local entrepreneurs to make charging more affordable for community members.
- Considering the low levels of employment in the PoC camp, **humanitarians** should leverage their position to expand access to livelihoods through private-sector partners, with a focus on digitally enabled livelihoods and remote work opportunities through enhanced digital access and skills. For IDPs, this would extend the value of mobile financial services beyond receiving money.



For humanitarian organisations and MNOs:

- **Humanitarians and MNOs** should explore partnerships to pilot the delivery of humanitarian cash assistance through mobile money as well as digital literacy programming.
- **Humanitarians and MNOs** could work in partnership to raise awareness and provide training in online misinformation, disinformation and hate speech, especially in relation to ethnic, political and tribal conflicts.

For MNOs:

- **MNOs** should explore possibilities for network expansion and ways to reduce costs for customers, for example, through tailored fees, tariffs and bundles for marginalised customers such as people with disabilities.

For donors and governments/regulators:

- Given the vital role of connectivity in South Sudan, **regulators** should support the telecommunications industry to expand coverage in South Sudan through more sustainable models, potentially with support from **international donors**.

For all stakeholders:

- **Governments, MNOs and humanitarian organisations** should work to develop digital literacy programming to help users reap the full benefits of mobile technology. For MNOs, partnerships with humanitarians also have potential for long-term return in terms of increased revenue. While this could (and should) be done alongside any digital humanitarian programming, it should also be explored as an outcome in its own right.
- **Humanitarians and MNOs** should explore potential partnerships that would help de-risk and incentivise network expansion in areas of South Sudan that are currently underserved, often where there has been conflict and insecurity.
- **All stakeholders** should ensure they understand who has access to mobile phones and who does not, especially internet-enabled ones. Only paying attention to the high overall access figures masks disparities among groups already at risk of being marginalised.

➔ **More information about findings in Bor can be found [here](#).**

Emerging trends in digital humanitarian action

The second half of this report covers three emerging trends in digital humanitarian action that were relevant in more than one of the research contexts. The chapters on **financial well-being** and **digital leisure** highlight the potential positive impacts of owning and using a mobile phone. For example, with the right digital skills and tools, mobile phones can facilitate financial inclusion through mobile financial services, as well as help people to relax, connect with friends and family and stay in touch with culture from home. Mobile phones can play an important role in overall well-being and mental health,²⁸ especially for people displaced far from home or in particularly challenging circumstances like being confined to a camp setting.

Developments in recent years have highlighted the risks associated with increasing mobile access and use. This research highlighted the role of

misinformation, disinformation and hate speech (MDH) and the risks they pose in humanitarian contexts. While this is not a new phenomenon or unique to mobile channels, the reach of mobile technology has allowed harmful speech and information to spread faster and farther than ever before.

This part of the report demonstrates how these risks manifest in vastly different ways depending on the political, social and economic issues in an area or community. Humanitarian organisations should pay close attention to these trends and make it a priority to understand local risks and address them. While this may extend beyond an organisation's programmatic goals, these issues affect the digital worlds of people within humanitarian settings and, in many cases, shape their offline realities as well.

28 Carboni, I. (2022). [Mobile Internet Use, Well-being and Gender: Understanding the Links](#). GSMA.

06 Financial well-being



Key findings from Iowara, PNG and Bor, South Sudan:

- Overall, there was very low uptake of mobile financial services (MFS) in both locations. Although there was a spike in Iowara, likely because of a recent cash assistance pilot, there was little evidence of recipients using mobile money after being introduced to it.
- Due to low and inconsistent incomes and pressing need, when people use MFS, it is almost entirely to meet their basic needs, such as food, education and airtime, and not in transformative ways that could improve their well-being.
- The greatest value users see in mobile money is the ability to transfer money over long distances and receive vital assistance from friends, family and humanitarian organisations.
- Key barriers to using MFS include inconsistent income, poor access to cash, digital literacy and low trust in digital services and service providers.
- There is interest and optimism about future access to MFS, including cash assistance. The recent pilot in Iowara demonstrated the opportunities and potential barriers of digital cash assistance in remote communities.



What is financial well-being?

Financial well-being is achieved when people are in control of their finances (income, savings and credit) and their lives. A wide range of mobile-enabled services can support financial well-being for displaced people, including financial services (such as mobile money), cash assistance and enhanced livelihood opportunities.²⁹

Research indicates that access to and use of financial services can improve the well-being of people living in poverty.³⁰ For displaced people, financial services can provide the ability to cope with negative shocks accentuated by humanitarian crisis.³¹ Financial services like mobile money can help meet a variety of needs, support livelihoods, enable people to save and transfer money with lower risk of theft and provide the financial security needed to deal with unforeseen circumstances.³²

In Iowara the economic situation is very challenging, and most people have **very low and unpredictable incomes** with little access to employment or services. The vast majority of the refugee and host communities are farmers and particularly vulnerable to food insecurity. A small proportion are employed in education and health within the settlement.

Similarly, **unemployment is extremely high in Bor** among both IDPs and the host community. Restrictions and confinement to camps mean that IDPs do not have formal employment opportunities. A small number earn money through small-scale businesses, informally reselling mobile money and airtime. While the host community has some opportunities for formal work, unemployment is high and there are high levels of food insecurity across the state, with people often forced to resort to negative coping mechanisms.³³ All IDPs and some members of the host community are dependent on humanitarian assistance.

29 El-Zoghbi, M. et al. (2016). *The Role of Financial Services in Humanitarian Crises*. World Bank.

30 Klapper, L., Lusardi, A. and Oudheusden, P. (2015). *Financial Literacy Around the World: Insights from the Standard & Poor's Ratings Services Global Financial Literacy Survey*. World Bank.

31 El-Zoghbi, M. et al. (2016). *The Role of Financial Services in Humanitarian Crises*. World Bank.

32 Casswell, J. (2019). *The Digital Lives of Refugees: How Displaced Populations Use Mobile Phones and What Gets in the Way*. GSMA and UNHCR.

33 REACH. (2021). *Humanitarian Situation Monitoring, Jonglei State, South Sudan: April – August 2021*.

Access to mobile financial services

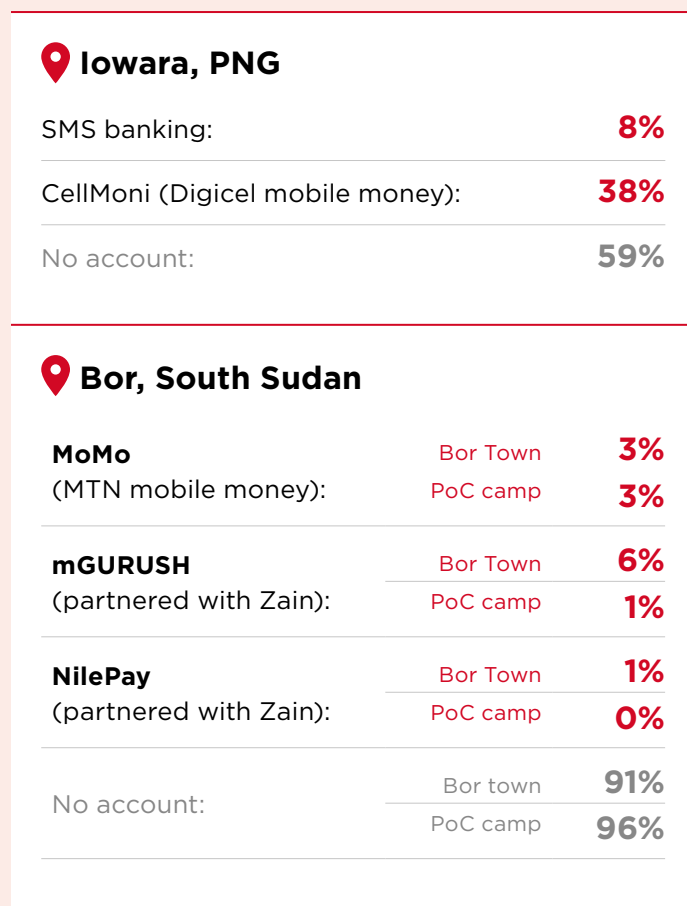
At a national level, both PNG and South Sudan are relatively nascent markets for MFS. Both rank 'low' on the GSMA Mobile Money Prevalence Index (MMPI) and there are only two live deployments in South Sudan and three in PNG.³⁴

PNG has shifted from a bartering economy to cash only relatively recently and has a low density of banks and low levels of financial inclusion. As of 2020, only eight per cent of the poorest 40 per cent of the population had a bank account, and this is even lower for women.³⁵ Similarly in **South Sudan**, less than 10 per cent of adults have a bank account.³⁶ There are efforts to accelerate adoption of MFS in both countries, but the effects have yet to be seen. Refugees face unique barriers to opening a bank account as they do not have access to valid, recognised ID.³⁷

It is therefore perhaps not surprising that **uptake of MFS in Bor and Iowara was low** (Figure 8). Limited mobile³⁸ and financial infrastructure, low or unpredictable incomes and low digital literacy have placed MFS out of reach.

Figure 8

Mobile financial services account ownership³⁹



³⁴ GSMA Mobile Money Metrics.

³⁵ Department of National Planning and Monitoring. (2020). Papua New Guinea's Voluntary National Review 2020: Progress of Implementing the Sustainable Development Goals.

³⁶ Altai Consulting and World Bank. (2019). Mobile Money Ecosystem Survey in South Sudan.

³⁷ Forthcoming UNHCR "Displaced and Disconnected" research.

³⁸ GSMA Mobile Connectivity Index.

³⁹ The total adds up to more than 100 per cent due to some people using multiple providers.

In Iowara, 41 per cent of survey respondents reported having an MFS account (either mobile money or SMS banking). The eight per cent using SMS banking were primarily those who had formal employment, such as teachers and health workers. SMS banking is a bank-led service used to check balances, transfer money, purchase phone credit and pay for food at the Iowara trade store. While there are no MNO charges, bank transaction fees are high, which customers say is a huge disincentive. Those with accounts reported that other community members ask them to make transactions on their behalf, often to pay school fees (eliminating a lengthy, costly and often challenging journey). Thirty-eight per cent of people reported having a mobile money account, however, the research suggests many were not using MFS before a recent cash transfer pilot in the area (see Box 4), indicating a potential role for humanitarian assistance in introducing people to financial services.

In Bor, only four per cent of IDPs and nine per cent of host community members had a mobile money account. The research found several reasons for this low uptake, including high transaction charges, the novelty of mobile money services and high levels of unemployment, which have left people feeling they do not have enough money. All three mobile money providers (MMPs) have a small number of official agents in Bor Town, but none in the PoC camp. While most people received money from relatives both within and outside South Sudan, this was mostly through money transfer companies and sometimes through banks in Bor Town and Juba, potentially a missed opportunity for MMPs. Most people with a mobile money account had used it to send or receive money within South Sudan or to purchase airtime.

Box 5



Digital diary of a male IDP in the Bor PoC camp

Chuol* is a 21-year-old male IDP living in Bor PoC camp. He goes to school and is in Senior One. He uses a smartphone, Infinix Smart 5, which he sometimes gives to his brothers and sisters to watch movies and listen to music.

**Not his real name*

Time	How you used your phone	Location	Detail
Morning	I got a call from my brother in Bentiu Unity State (UNMISS PoC).	At home, Bor PoC, Block 12	The call my brother made was about sending us money to buy food. I told him to send the money to the bank in Bor Town. I appreciated him and felt happy for his love.
Afternoon	I used my phone to call my uncle who lives in Uganda.	My aunt's home	The talk with my uncle was about my going to school in Uganda. I told him that I wanted to visit him there, but he rejected this due to lack of money for transportation. I felt ashamed about the situation we had in our family.
Evening	I used my phone just for chatting with my friends in Facebook Lite app, Messenger and WhatsApp.	In the market of Bor PoC	The chats with my friends online were about last night's football match, Liverpool versus Arsenal FC. I appreciated Liverpool for their great win.

Mobile money meeting basic needs

A combination of immature MFS, low levels of digital financial literacy and low-to-no incomes in both contexts mean that when people use mobile money, it is almost entirely for meeting their basic needs (Figure 9). Money transfers, either from family and friends or humanitarian cash payments, are the primary use. For example, everyone interviewed in the PoC camp in Bor reported receiving money transfers from friends or relatives via money transfer, a bank, through mobile money agents or informal dealers or with the help of someone who had a mobile money account. In the absence of official mobile money agents in the PoC camp, businesspeople load mobile money onto their phones (in Bor or in Juba) and resell it to people in the PoC camp, mostly as airtime (at a fee of eight per cent) or to send/receive cash (at a fee of 13.5 to 14 per cent).

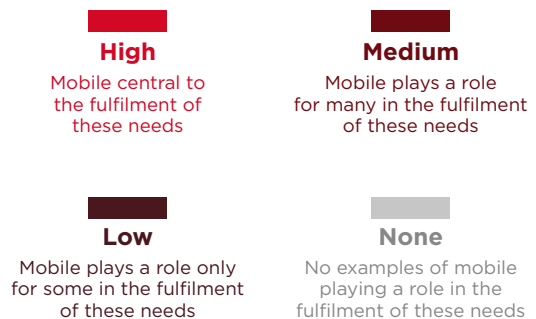
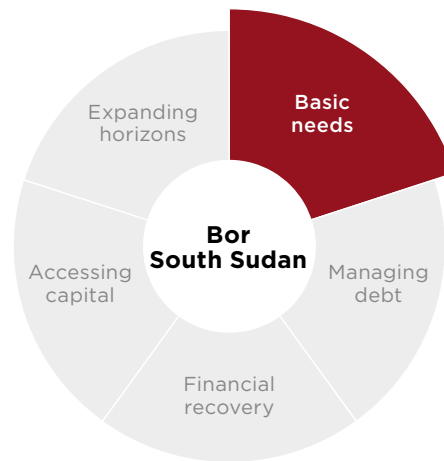
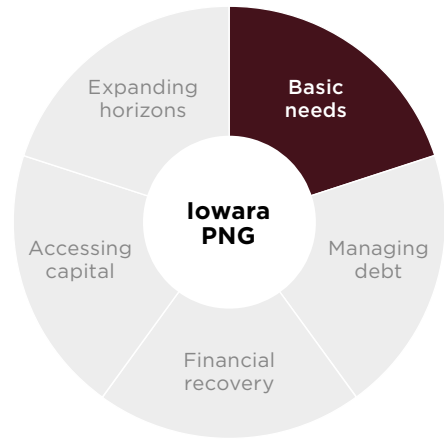
The ability to receive money is **potentially lifesaving for people with few other income opportunities and high levels of food insecurity.**

As one interviewee in the PoC said: “(my friend) sent me money through my telephone... I was really in deep financial need... whenever I needed any support from my colleagues I would go to the market and load my telephone with airtime to call them for any support.”

– Male IDP, PoC camp, South Sudan

Figure 9
Mobile financial services for financial well-being⁴⁰

Mobile-enabled services were used for...



⁴⁰ The Fletcher School of Law and Diplomacy at Tufts University recently proposed a financial health framework with five concrete measures that are indicators for assessing whether livelihood assets are sufficient to enable people to achieve resilience, self-reliance or integration. The financial health framework applies both to displaced and local populations and offers a way to explore how all people move towards financial health with the support of development and humanitarian actors. Five different types of services are illustrated in Figure 9.

There were no examples of people using MFS in more transformative ways, such as saving or investing in business. This is again due to both locations being very low-resource settings.

While cash assistance programmes have historically been rare in Bor and Iwara, there have been some pilots in both locations. In Bor it was found that the lack of enabling infrastructure for connectivity and supporting infrastructure like roads have been a huge challenge to implementation and will require investment to enable broader mobile money uptake.⁴¹

In Iwara, however, a first-of-its-kind mobile money pilot by Save the Children was conducted in 2022 (Box 6), and it is thought that registrations for this pilot are why mobile money account ownership

is now at 38 per cent. Two-thirds (67 per cent) of account owners reported using their account to receive humanitarian assistance. Account use was still low, however, with only a small number of account holders reporting that they had cashed out (13 per cent), cashed in (seven per cent) or purchased goods (four per cent). Since the research was conducted just two weeks into the pilot, it may be too early to assess its influence on the broader use of mobile money, but interviews captured how some anticipate it could help them in the future:

“It will help me to purchase food to sell and also to feed my family.”

– Male host community member, Iwara, PNG

Barriers to uptake

Two barriers to mobile money uptake came across strongly in both settings:

- **Inconsistent incomes and poor access to cash:**

Sixty-two per cent of respondents in Bor Town and 47 per cent in the PoC camp felt they do not have enough money for mobile money to be useful, and this was compounded by the high transaction fees of informal dealers. Similarly, before the Save the Children pilot, refugees in Iwara felt that mobile money might be less relevant for farmers without a predictable income. While distribution of humanitarian support via mobile money might address this issue, it can also create liquidity issues for agents in remote locations where people operate primarily in cash.

- **Low digital literacy and trust in the mobile money system and agents:**

In Iwara, poor understanding of mobile money has led many to fear for the security of their funds, personal information or personal safety. People reported confusion between authentic messages from Digicel and scams, which can make users concerned about trusting communications. In both Iwara and Bor, there was suspicion or concern about the integrity of mobile money agents themselves. Some women expressed some discomfort dealing with male mobile money attendants for transactions in South Sudan (12 per cent in Bor Town and 16 per cent in PoC).

“I don’t know much about phones, [let] alone mobile money. Even with the airtime transfer I don’t have much information. I could try to find out [if only] I had a phone.”

– Female IDP, PoC camp, South Sudan

⁴¹ CALP Network. (2021). [Good Practice Review on Cash Assistance in Contexts of High Inflation and Depreciation: Case Study South Sudan](#).

Optimism about the future of mobile money

Despite low uptake, people in both contexts felt very positive about mobile money. They told researchers about the benefits of allowing money transfers to be sent between distant places and reducing travel costs. It will be crucial to study the long-term use and impact of mobile money because of programmes like Save the Children's in lowara. This will contribute to a better understanding of not only the barriers that need to be addressed, but also the opportunities mobile money can offer to refugees in remote

settings such as lowara. It will also be important to understand whether the use of mobile money for cash transfers has a long-term impact on uptake and use of the service once transfers have stopped. Ultimately, it is hoped that these programmes will introduce users to a wider array of services that support their financial well-being. This is not a foregone conclusion, however, and will depend on how they are implemented.

Financial wellbeing: Opportunities and recommendations

Mobile financial services can play many functions in the lives of displacement-affected communities but will always need to fit local needs and aspirations. It was clear in both Bor and lowara that the main, and often only, need was receiving cash for pressing needs. There is currently no broader need for digital technology to play a role in people's financial lives. However, there is optimism about the future role of these technologies, especially in promoting greater financial well-being with easy-to-use, affordable and speedy financial services.

For humanitarian organisations and mobile money providers:

- **Humanitarians** and **MMPs** should recognise that humanitarian assistance is a pathway to greater use of MFS, since the main use at present is the receipt of emergency cash, regardless of its source.
- **Stakeholders** should consider how to link issues of digital and financial inclusion with the right to employment and livelihoods, given that very few people in either setting have incomes high or regular enough to see much value in MFS beyond receiving money.
- Where there is interest and a person has the financial resources, **humanitarians** and **MMPs** should work in partnership to understand specific barriers for displaced people and design pathways

for them to access mobile money. This could be through tailored fees and training and adapted agent networks.

- **Humanitarians** and **MMPs** should ensure cash assistance is delivered alongside tailored digital literacy campaigns to build trust and understanding with users and to help reduce the risks of people falling prey to scams or other digital financial harms.
- Pilots such as Save the Children's mobile money cash programme in lowara should be closely followed and evaluated to understand the impact of such programming on the broader uptake and long-term use of MFS.

For governments/regulators:

- **Governments** and **regulators** should consider how policy frameworks in their jurisdictions either enable or prevent displaced people from accessing financial services in their own names.⁴² As much as possible, regulation should take a common-sense approach that balances anti-money laundering and countering financial terrorism (AML/CFT) requirements with the types of IDs that people have practical access to. Workarounds could involve using identity documents and databases for refugee registration, for example.⁴³

⁴² UNHCR. (2019). *Displaced and Disconnected*.

⁴³ Okong'o, K. (2020). *Proportionate regulation in Uganda: A gateway for refugees accessing mobile services in their own name*. GSMA.

Box 6

Save the Children mobile money pilot in Iowara

Save the Children started a cash assistance programme in 2020 after conducting feasibility assessments in Iowara. Since then, they have been piloting different modalities, including via bank accounts, mobile money and e-vouchers. In May 2022, they launched a pilot using Digicel's CellMoni mobile money platform to transfer cash to refugees in Iowara. The pilot included distribution of a basic phone and an unrestricted payment of 450 Kina (USD 128) to each household. Additionally, the team used a gender-based financial incentive to encourage women to open a mobile money account. As a partner in the pilot, Digicel waived their fees.

As this pilot was the first time mobile money was used for humanitarian assistance in the area, Save the Children faced a number of challenges and unknowns.

There were concerns that, due to a lack of merchants accepting mobile money payments in Iowara, recipients would primarily cash out their transfers. This would require mobile money agents to maintain extremely high liquidity. It was estimated that each agent could only support cash-out for about five recipients a day and it would take several months to cash-out all 479 recipients. To address this issue, recipients were encouraged to open MiBank bank accounts, which would enable them to cash out at the bank in the nearest town and deposit cash from crop sales.

Save the Children sought to **address digital literacy gaps** by stationing representatives in front of MiBank to guide participants through registration and the initial cash-out process. Given that many recipients have not yet used their mobile money account (see below), a more in-depth and systematic approach may be necessary to overcome initial barriers to use. There may also be protection risks with providing access to mobile phones and mobile money without adequate training on skills and major risks.

While mobile money account ownership (particularly among women) in Iowara is now relatively high (38 per cent), **at least 20 per cent of account owners had not used it at the time of the research.** The incentives and support provided to community members to open accounts may not have sufficiently addressed their low digital literacy levels and/or discomfort with using the service. It was perhaps telling that some women in the host community seemed unaware of the mobile money programme they had signed up for when they received the phone:

Interviewer: “What type of phone do you have?”

Interviewee: “The one that recently they distributed.”

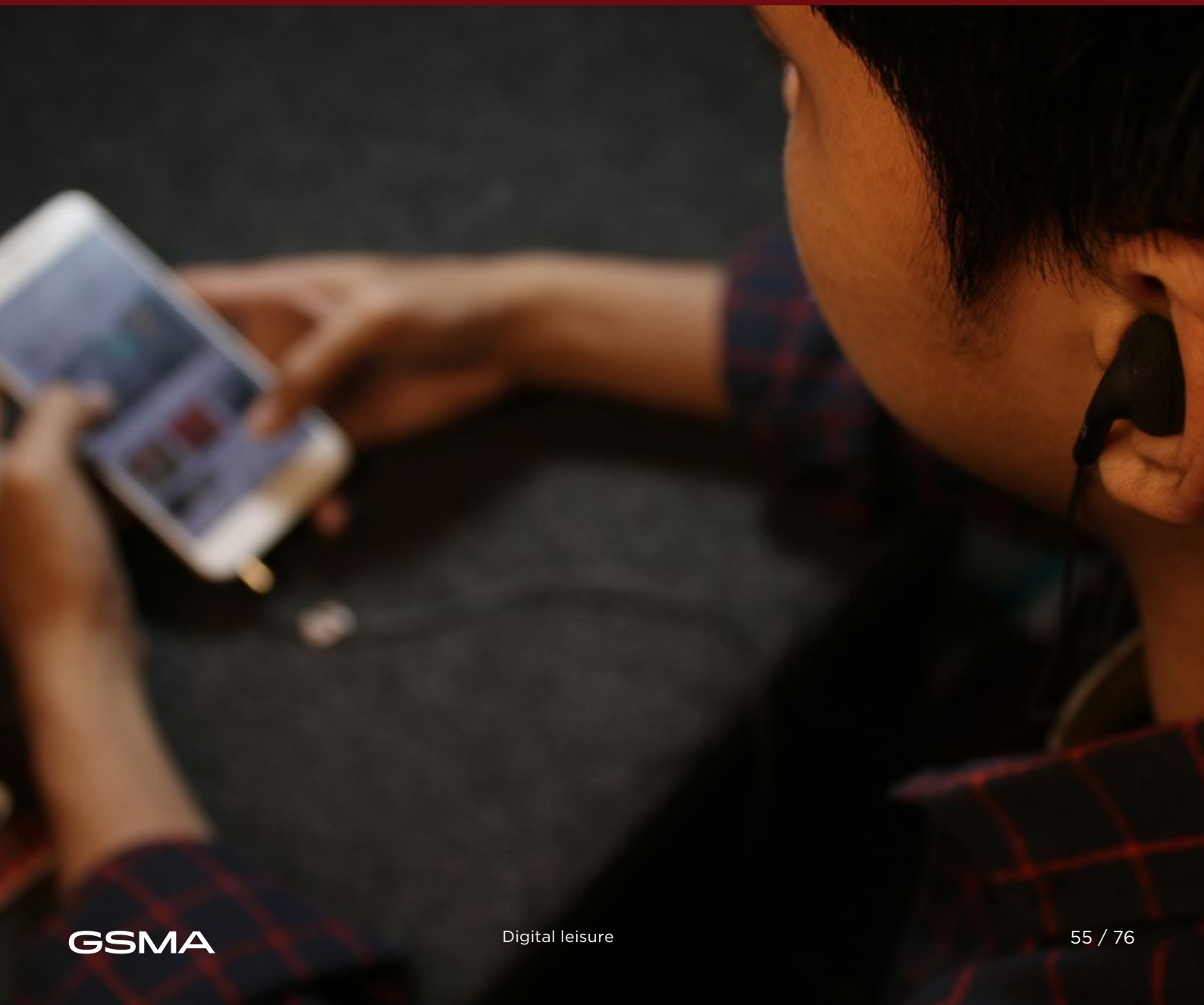
Interviewer: “Have you heard of humanitarian organisations using mobiles to distribute support to people?”

Interviewee: “No.”

– Female host community member, Iowara, PNG

The current approach, which relies on banks in the nearby town for cashing out, means that **a functioning road is essential.** This has the potential to undermine some of the advantages of mobile money as a convenient and secure way to store and access funds. Essential infrastructure, investment in consistent connectivity and reliable access to phone charging would not only reduce barriers to mobile money use, but also support a broader shift to digital inclusion as people become accustomed to their new phones.

07 Digital leisure



Key findings from northern Lebanon and Bor, South Sudan:

- Social connections with friends and family, relaxation and entertainment were identified as the most important uses of a mobile phone. There were many examples of communities in northern Lebanon and Bor using phones for entertainment, social interaction, to access news and information (especially from home) and to practice their faith.
- Digital leisure can have wide ranging benefits for these groups, including feeling more connected, reducing worry about family in

other places, overcoming discontent and feeling relaxed, motivated, inspired and restful. Negative content or distressing news, however, can have an adverse impact on users' mental health.

- Digital leisure can help to build digital skills as it provides an incentive for people to learn how to navigate phone settings, use different apps, share content and use the internet.
- While humanitarian organisations often focus on mobile phones as a tool to deliver information and services, they should consider all the potential impacts of mobile technology, especially on mental health and well-being.



What is meant by digital leisure?

The term “digital leisure” refers to the digital services and activities that people do for fun or to relax. It includes activities that can contribute to a greater sense of well-being and connectedness, such as entertainment, social interaction, access to information and news, hobbies and expressions of faith and worship. **A recent UNHCR report, undertaken in partnership with Erasmus University Rotterdam illustrated the wide-ranging benefits of digital leisure for displaced people, including the ability to express their aspirations, escape from harsh realities, pass the time, convey desires and goals and maintain memories and connections.**⁴⁴ These benefits were also evidenced in research conducted in Nyarugusu refugee camp in Tanzania,⁴⁵ which found “connecting with family and friends” and “connectedness and well-being” were two of the four main ways refugees used their phones.

Even though many humanitarian organisations focus on connectivity or digital interventions, it is rare that displaced people receive sufficient training to take advantage of all the services, activities and information the organisation offers. More often, humanitarians leverage mobile technology to deliver programming without considering the wider benefits of mobile access. For example, mobile phones may be distributed to deliver cash programming via mobile money, but early evidence suggests that leisure is a key driver of adoption of digital technologies and enables users to build their digital skills. It would therefore be beneficial to extend programming into these areas and not simply use mobile technology as a means to an end.⁴⁶

In this research, digital leisure was a particular focus in northern Lebanon and Bor, although some findings emerged in lowara, too.

44 UNHCR. (2022). [The Digital Leisure Divide and the Forcibly Displaced](#).

45 GSMA. (2017). [Mobile is a Lifeline: Research from Nyarugusu Refugee Camp, Tanzania](#).

46 UNHCR. (2022). [The Digital Leisure Divide and the Forcibly Displaced](#).

Mobile behaviours and use cases

Entertainment and social connectedness were central to people's digital lives in all three humanitarian contexts. Figure 10 illustrates the various ways displaced people used their mobile phones for leisure. Social interaction and digital entertainment accounted for a large proportion of phone use, with many young people spending their afternoons and evenings listening to music, watching movies and playing games. Checking social media was part of a typical day for most users; in Bor, some digital diary participants checked Facebook and/or Snapchat up to four times a day.

In all three contexts, **the most cited use of a mobile phone was social interaction**. Sending SMS messages and chatting with friends and family online was a significant component of people's day-to-day lives, including how they kept in touch with each other, sought news from family and friends and passed time.

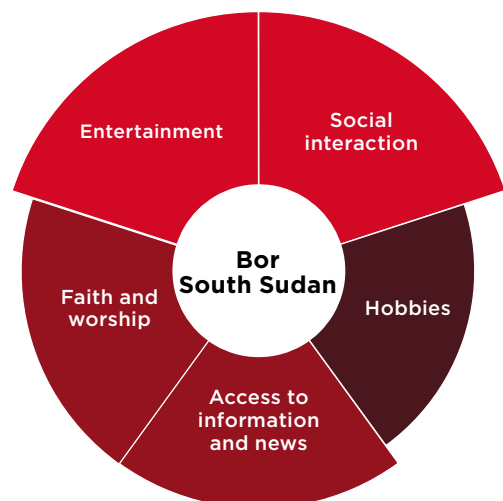
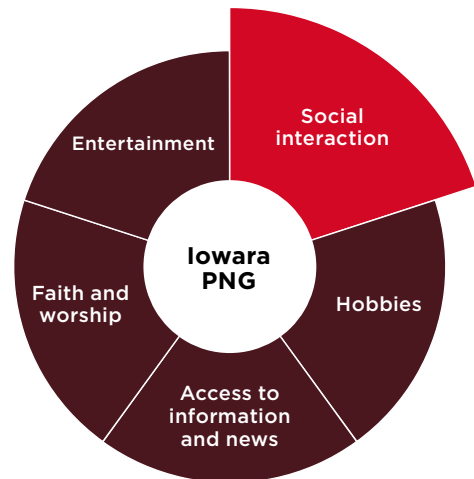
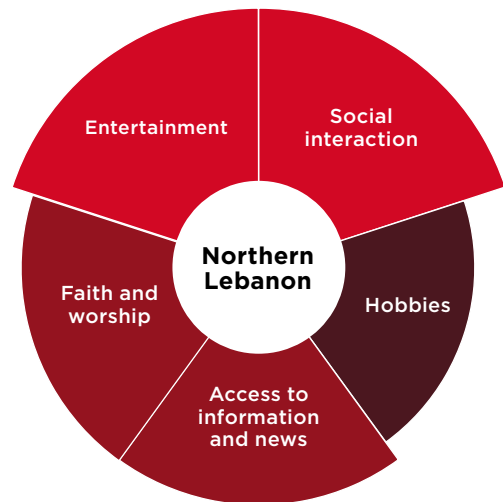
Sharing information on social media was also very popular. For example, it was common for young people to share updates on Facebook and comment on their peers' updates. In Bor, about a quarter of mobile users spent time on public social media sites. Similarly, in northern Lebanon, 37 per cent of users posted on social media, although concerns about privacy have led many to create accounts using an alias rather than their real name. In both contexts, young people were more likely to use social media.

“Really most people have the feeling that they can share their life events on social media through Facebook, especially the youth.”

- Male IDP, Bor PoC camp, South Sudan

Figure 10
Types of digital leisure

Mobile-enabled services were used for...





Low-cost entertainment

Previous research has established the importance of entertainment for displaced communities. Music, games and other forms of entertainment can help alleviate the distinct stresses caused by being confined in a camp.⁴⁷ Because many of the people who were interviewed could not afford TVs or computers, **mobile phones were often their primary tool for accessing digital entertainment.** Many people interviewed used their phones to play games or listen to music (53 per cent in Bor; 44 per cent in northern Lebanon) and to take videos and photos (49 per cent in Bor; 60 per cent in northern Lebanon). Indeed, in Bor, games, entertainment and music were the most popular use case on average, even ahead of making calls and sending SMS messages.

“I use the phone for fun and to access fun videos on Facebook ... Sometimes I also play the games that my kids install.”

- Male Syrian refugee, Akkar, Lebanon



Users accessed digital leisure affordably by **consuming content offline**, especially music and videos, to extend battery life and reduce costs. In Bor, for example, many young people spent their afternoons and evenings listening to music and watching downloaded content. Users still attending school⁴⁸ enjoyed listening to music and watching videos to unwind and said it exposed them to new things like English grammar and geography. Watching football was especially common among young men who used their phones to follow their favourite football teams and discuss the games with their friends. Older people also used their phones for entertainment but tended to listen to religious and traditional music.

“I used my phone just to watch football. The video was about Lionel Messi (Argentine football star) ... The chatting we had with my friends online was about the past match of football against Liverpool Versus Arsenal FC, last night; I appreciated Liverpool for their great win.”

- Male IDP, Bor PoC camp, South Sudan

⁴⁷ GSMA. (2017). *Mobile is a Lifeline: Research from Nyarugusu Refugee Camp, Tanzania*; Casswell, J. (2019). *The Digital Lives of Refugees*. GSMA.

⁴⁸ All participants were over the age of 18.



Gender differences in northern Lebanon

While gender likely plays a role in the ways people use their phones for digital leisure in all three contexts, differences emerged in the research, especially in northern Lebanon.

In northern Lebanon, Syrian **men and women tended to consume different types of entertainment content**. Syrian women tended to prefer watching series, cooking shows and using social media (WhatsApp, Facebook, YouTube and TikTok). Some talked about using their mobile phones to watch cooking videos and share their own recipes over WhatsApp, Facebook or Instagram. Women in Lebanon also spoke of playing cartoons for their children. Mobile games were especially popular among children and younger people.

“Especially the women they like to watch Turkish dubbed series all day and I like that too, the men use it mostly for work and to communicate about humanitarian assistance, and older people like my parents in the village use it for communicating on WhatsApp video.”

- Female Syrian refugee, Tripoli, Lebanon

Most Syrian men said they enjoyed entertaining content on Facebook and watching the news and sports. Both Lebanese and Syrians, especially men, accessed Arabic language international and independent media platforms.



Faith and worship

Many people used mobile apps to help them **express their faith and beliefs**. In Bor, this was through listening to religious music, often in Nuer or Dinka, and in a few cases using a Bible app.⁴⁹ Similarly, in northern Lebanon, it was common for older people to use their phones to listen to the Quran and to check Qibla direction and prayer times.⁵⁰

“I use the phone mostly for access to news and reliable information on Facebook, but occasionally use it to recite the Quran, especially now with the holy season of Ramadan coming.”

- Male Syrian refugee, Tripoli, Lebanon



49 Twenty-one per cent of people in Bor Town and 12 per cent in the PoC camp used their mobile phones in this way. Interestingly, this figure was higher among male users (18 per cent) than female users (11 per cent).

50 This was more common among users living in Akkar (52 per cent) than in Tripoli (30 per cent).

Impacts on well-being

As reported by UNHCR, people in the study used their mobile phones **to pass the time, to express and pursue their aspirations and to connect with their family and support networks**.⁵¹ In northern Lebanon, people used the term رواق (Rawa'a), which translates as **peace of mind**, to express how calm and peaceful they felt after using their phones for relaxation. For some, it brought comfort knowing how their loved ones back home were doing. For others, listening to religious and traditional music alleviated stress and gave them encouragement. Indeed, almost 69 per cent of mobile users stated that using mobile phones for entertainment had a positive effect on their well-being and mental health.⁵²

“The phone makes us happy. We watch series together, it somehow brings the family all together to watch, and that is more than enough for me. Look, I have limited time on the phone and I feel super happy with that time, but again I wish we have more time on it but that all depends on electricity.”

- Female Syrian refugee, Tripoli, Lebanon

In Bor, interviewees also expressed how entertainment helped them to **disconnect from their hard everyday conditions**. They described entertainment and games as instrumental in abating the boredom they feel due to the limited options for activities in the camps. When asked about the specific benefits of using their mobile phone for leisure and entertainment for their well-being, they said it contributed to relaxation, motivation, inspiration and restfulness. Watching movies, videos, sports and talking to friends and family had a positive impact on their mood and made them “happy, inspired and refreshed.”⁵³

“... when you are thinking too much about a problem you can't bear and you have a phone, you can open the music, listen to songs, and your thinking/tension or stress reduces.”

- Female IDP, Bor PoC camp, South Sudan

In both countries, **people who borrowed mobile phones derived similar benefits**. Some of those who did not own a mobile phone mentioned borrowing phones specifically to listen to music, play games and entertain themselves. Others expressed frustration over not being able to use phones for entertainment for as long as they would like, and others associated their desire to own a phone with greater well-being. For example, a non-user in the Bor PoC camp said:

“[if I had a phone] I would listen to songs, and stories and tales of the past would be great to enjoy... I would be relieved from stress and after exhaustion try to feel good. I would not be thinking too much, because I would be entertained.”

- Female IDP, PoC camp, South Sudan

⁵¹ UNHCR. (2022). *The Digital Leisure Divide and the Forcibly Displaced*.

⁵² Syrians: 68 per cent; Lebanese: 57 per cent

⁵³ However, the survey data was less clear. Only 10 per cent of surveyed users thought using their phones affected their well-being, while 9 per cent were unsure. The post-survey validation workshop and facilitated discussions with the user research groups in the PoC camp and in Bor Town revealed that the positive effects on well-being are likely underreported in the survey because (a) some people found the question hard to understand; (b) some felt that well-being was associated with physical health; (c) some respondents felt that saying yes might be perceived in a negative light as “wasting” a lot of time on their phones, so answered no even if they said they derived positive benefits from digital leisure.



Negative impacts

Some mobile phone users in both countries also described the **negative effects of digital entertainment on well-being**. For example, users in South Sudan felt that consuming negative or upsetting content like watching a violent or traumatising movie, receiving bad news about friends and relatives in the country or abroad and seeing distressing information online would impact them negatively and leave them in emotional distress. Misinformation and hate speech can also be encountered, particularly through social media platforms like Facebook. This is discussed in more detail in chapter 8.

Parents also expressed concern over what their children might be watching, especially on social media. In northern Lebanon, parents often had strict rules for which apps their children could use, who they could talk to on social media and what content they could watch. Some respondents in northern Lebanon perceived Instagram and TikTok as inappropriate, particularly for girls and young children. Similarly, in Bor, there were concerns about children accessing harmful content online:

“There are so many videos that can stress people more. They are very immoral and that is why I like watching football more often. In the past we liked watching war videos but they are more dangerous.”

- Male IDP, PoC camp, South Sudan

Contributions to digital skills

The primary benefits of digital leisure are feelings of well-being and connectedness. **However, it also plays an important role in building the digital skills of mobile phone users** (Table 2).

Users explained that the more time they spent using their mobile phones, the more they discovered new features and became comfortable navigating the settings and downloading and sharing media. Many of the users interviewed in the Bor PoC camp described how they learned to use the phone by themselves through digital leisure.

This was **especially true for young people in Bor**, who were very familiar with the functions of their phones. They used the internet sparingly, made their batteries last, understood which apps consumed less internet and knew how to transfer files. Music and movies were largely consumed offline after being downloaded. In northern Lebanon, Syrian refugees had also developed techniques and skills to make their charge last longer or to access content.

The digital leisure divide

Although there are examples of offline use as a cost-saving measure, digital leisure can still be prohibitively expensive. These costs have created significant digital leisure divides across income lines, particularly for apps that are available only on feature phones or smartphones. In northern Lebanon, for example, 19 per cent of respondents said they would like to use the internet more but are constrained by cost, a problem that has been exacerbated by the COVID-19 pandemic and the deteriorating economic situation. In Bor, people with more access to money and opportunities to charge their phones spent more time enjoying digital leisure than those who did not.

Table 2

Does digital leisure build digital skills?

Digital leisure and skills	Northern Lebanon	South Sudan
Entertainment	76%	68%
Navigating phone settings	31%	47%
Learning how to use other apps	38%	46%
Searching the internet	31%	43%

“Having enough money to purchase more MBs would allow for better access to the internet and to use many platforms. Due to the limitation in money, it is difficult to utilise more of the digital services.”

– Male IDP, Bor PoC camp, South Sudan

The cost barriers mean that more marginalised groups like women, people with low literacy levels, older people and people with disabilities spend less time enjoying digital leisure and risk being excluded from the positive benefits of well-being and improved digital skills.

Digital skills: Opportunities and recommendations

Digital leisure played an important role in users' digital worlds in all three settings. The positive impacts of being able to relax, connect socially and unwind (while learning new skills along the way) were highlighted as key benefits of mobile access. To better support the overall well-being of displacement-affected communities, stakeholders should consider these benefits and how to enable users to connect safely and autonomously.

For humanitarian organisations:

- **Humanitarians** should consider the indirect benefits of mobile use for leisure. Digital programmes could centre around these activities and benefits and be linked to relevant programme areas, such as protection, mental health and psychosocial support. Understanding what users want to achieve in their digital worlds could be a starting point and humanitarian organisations could support communities to engage online safely and autonomously. Training could also provide information on how to minimise costs.
 - **Humanitarians** should be aware of the impact of negative content on well-being and take steps to mitigate this, especially for children. Training should be provided on safety and security online with use cases such as how to turn on parental settings or explicit content filters.
 - **Humanitarians** should consider leveraging the digital leisure channels people already use, such as games, music and social platforms, as entry points to digital skills training and for psychosocial well-being interventions. Other research⁵⁴ suggests that digital leisure is also a potential avenue to livelihood-generating activities, which should be encouraged.
 - **Humanitarians** could consider providing access to popular digital leisure channels and services to promote well-being.
- **Humanitarians** could also work with private-sector providers to facilitate zero-rated or free services to communities. Facebook Basics, although not without flaws, is an example of an affordable way that many users can access leisure services.
 - In all three humanitarian contexts, women, older people and people with disabilities were less likely to have access to smartphones. Given the documented positive impact of digital leisure, and to help reduce the digital leisure divide, **humanitarians** should aim to develop digital leisure programming for marginalised groups experiencing low levels of well-being or community resilience.

For humanitarian organisations and MNOs:

- To enable people to benefit from digital leisure, **MNOs** could consider how free or lower-cost connectivity could be provided in areas where mobile ownership is high and purchasing power is low. This could include free Wi-Fi or tailored tariffs and bundles. MNOs could consider providing bundles that allow displaced people to maintain contact with families and friends via messaging apps, particularly where they have moved across borders. **Humanitarians and donors** might also consider contributing to the costs of connectivity for those with low purchasing power.

For donors:

- **Donors** could consider how to support digital inclusion programming, both for its own sake and for the positive impacts that greater connectivity can have on the well-being of displaced people.
- **Donors** could review existing digital programming to identify untapped potential relating to digital leisure and its impact on well-being and community resilience. This may require only modest additional investment.

54 UNHCR. (2022). [The Digital Leisure Divide and the Forcibly Displaced](#).

08 Misinformation, disinformation and hate speech



Key findings from northern Lebanon, Iowara, PNG and Bor, South Sudan:

- Concerns about misinformation, disinformation and hate speech (MDH) were common in all three contexts, as they are globally. However, the exact concerns and types of dangerous speech and information varied significantly between contexts. The most prevalent concerns in northern Lebanon were hate speech and resettlement schemes, while in Iowara people were most concerned about phishing scams and in Bor, false political information.
- People experienced negative impacts on their financial and mental well-being from losing money through scams, community tension due to false information and hate speech and distrust of authorities.
- These concerns have also led to greater distrust of mobile apps and services in all three contexts.
- MDH on digital channels not only affects the safety of users online, but also the dynamics of offline community relationships.



What is MDH?

Misinformation, disinformation and hate speech is defined as follows:

- **Misinformation:** false information that is spread unintentionally.
- **Disinformation:** false information that is intentionally fabricated and shared with bad intent.
- **Hate speech:** all forms of print, audio and visual content that is spread to incite or promote hate, aggression, and/or violence against specific groups or identity traits.⁵⁵

While these are distinct phenomena, they are grouped together for the purposes of this research and discussed separately within each context depending on the concerns and risks that emerged.

A 2022 report by the International Committee of the Red Cross (ICRC)⁵⁶ shows that although MDH is not a new phenomenon, the widespread use of the internet and mobile technology has made it possible to access **MDH more quickly and on a greater scale than ever before.** Technology has also made MDH much harder to detect and verify. ICRC argues that the constant evolution of technology and increasing automation will make MDH ever more serious and widespread.

While MDH is a global issue, it is an especially pressing concern in humanitarian contexts where it increases the potential for harm and creates a greater risk to the safety, well-being and dignity of affected populations. Information can influence behaviour and dynamics on the ground, as well as the types of risks and vulnerabilities that communities and humanitarian responders address. False and manipulated information can also cause reputational damage, erode trust and undermine communities' acceptance of humanitarian organisations.⁵⁷

MDH is a clear example of the risks of digital inclusion and how harmful information spread online can affect lives and realities offline. Regardless of whether humanitarian organisations are engaged in digital programming, it is vital that they understand the types of information being spread through mobile technology and how this may shape dynamics between people, both online and offline. In each of the three humanitarian contexts in this research, MDH manifested in vastly different ways, presenting unique challenges to mobile phone users and humanitarians alike. In some cases, discussions about MDH prompted people to discuss other digital harms, like scams, which are also included in this chapter.

⁵⁵ ICRC. (2021). *Harmful information – Misinformation, disinformation and hate speech in armed conflict and other situations of violence: ICRC initial findings and perspectives on adapting protection approaches*, pp. 8–9.

⁵⁶ ICRC. (2022). *The digitalisation of armed conflicts: Three humanitarian priorities*.

⁵⁷ Ibid.

MDH in the three contexts

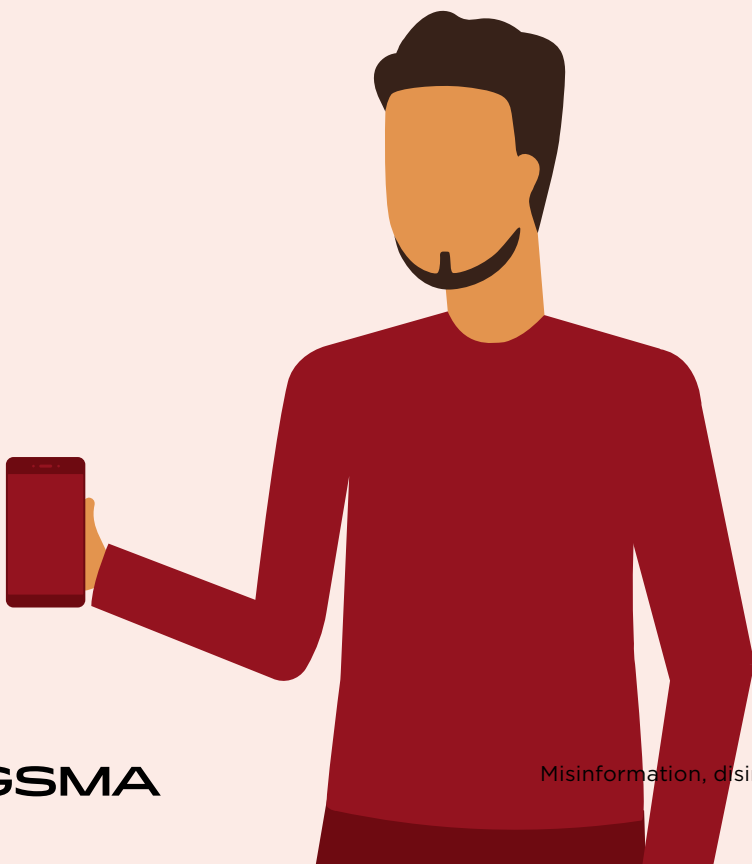
Overall, the displaced populations and local host communities in northern Lebanon, Iowara, PNG and Bor, South Sudan perceived misinformation, disinformation and hate speech as both widespread and a major concern. In particular:

- **Northern Lebanon:** Both Syrians and Lebanese were concerned about hate speech, receiving incorrect information or fake news and being targeted by scams. Sixty-two per cent of respondents reported that they had seen hate speech, and interviewees described anti-refugee sentiments towards Syrians online as widespread. Many Syrian interviewees were very reluctant to discuss these problems and were concerned about the monitoring of common social media platforms by the Syrian government.
- **Iowara, PNG:** Many interviewees told researchers about their concerns over scams. There was also a concern about misinformation and disinformation, particularly the risk of it being used to target personal relationships. For example, photoshopped images of individuals implying adultery have been reported, creating conflict within communities.

- **Bor, South Sudan:** People in Bor shared their concerns about false and fabricated information about the conflict and peace agreement. Stories of ethnic, political and tribal conflicts often linger in public discourse for a long time, with the details lost or altered with each telling. Most people who had access to the internet reported that they had seen false information online.

“My husband usually deals with the information source and if it is right. As for the hate speech, that’s one of the reasons why we don’t have Facebook because it exists there. We saw a lot of hate speech between refugees and Lebanese and that escalated a lot. We don’t want any problems, so we are not involved at all.”

- Female Syrian refugee, Akkar, Lebanon



Impact of MDH

Misinformation, disinformation and hate speech can cause physical harm, mental harm, discrimination and exclusion, and can have a direct or indirect impact on the delivery of humanitarian assistance.⁵⁸ For instance, if displaced people in need of humanitarian aid receive intentionally false information about resources and services that could save their lives, they may be led away from aid and into danger.

Research participants spoke of three types of harm that could arise from MDH: scams, violence, conflict or intercommunal tension and misuse by authorities (Figure 11).



Scams

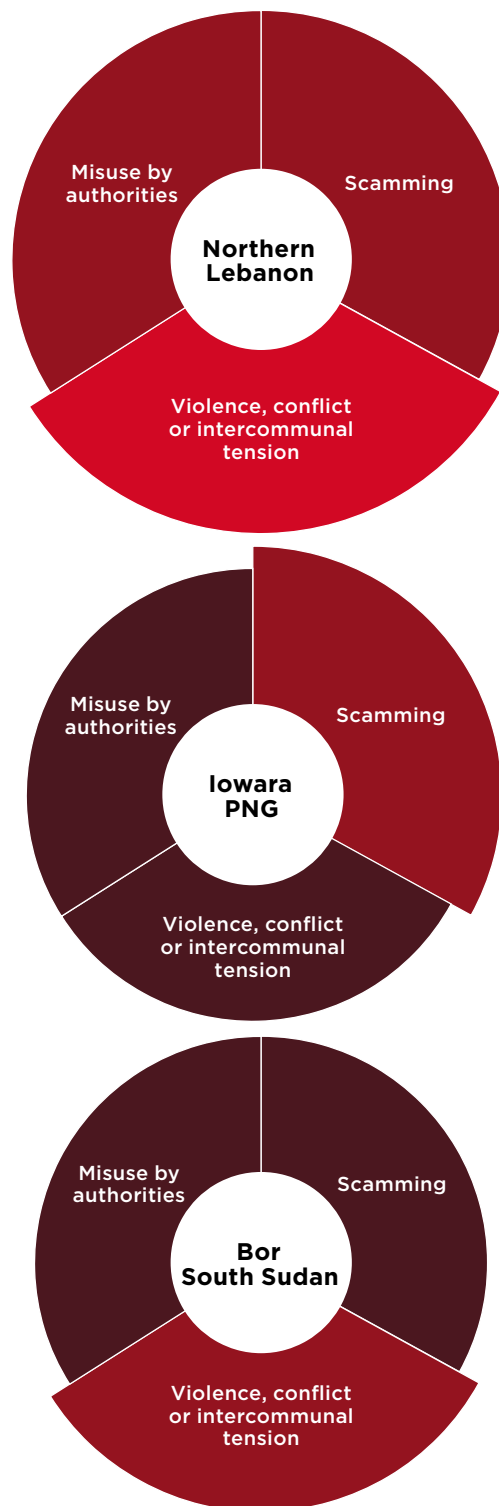
Concerns over scams were prevalent in all three contexts, but were most common in northern Lebanon and Iowara:

In northern Lebanon, people reported experiencing scams related to cash assistance or personal finance (24 per cent of Lebanese; 37 per cent of Syrians), livelihood and work opportunities (7 per cent of Lebanese; 15 per cent of Syrians) and resettlement (14 per cent of Syrians). These included fake calls to register with UNHCR, obtain services or fast-track their resettlement application.

“I like to know what is real from scams – for instance, I once got a call that wanted me to pay 300 USD to register with the UN and I called a friend who said this is a scam – so there are many things like that we need to be careful of.”

- Female Syrian refugee, Tripoli, Lebanon

Figure 11
Types of harms from misinformation, disinformation and hate speech



⁵⁸ ICRC. (2021). Harmful information – Misinformation, disinformation and hate speech in armed conflict and other situations of violence: ICRC initial findings and perspectives on adapting protection approaches.

In lowara, phishing⁵⁹ messages and calls were a major concern for mobile phone owners with limited digital literacy, who feared being exploited financially. Although only seven per cent of survey respondents reported being targeted by scammers, another 20 per cent were not sure. Several interviewees shared detailed stories of being scammed, suggesting that the prevalence of scams is likely higher and difficult to identify.

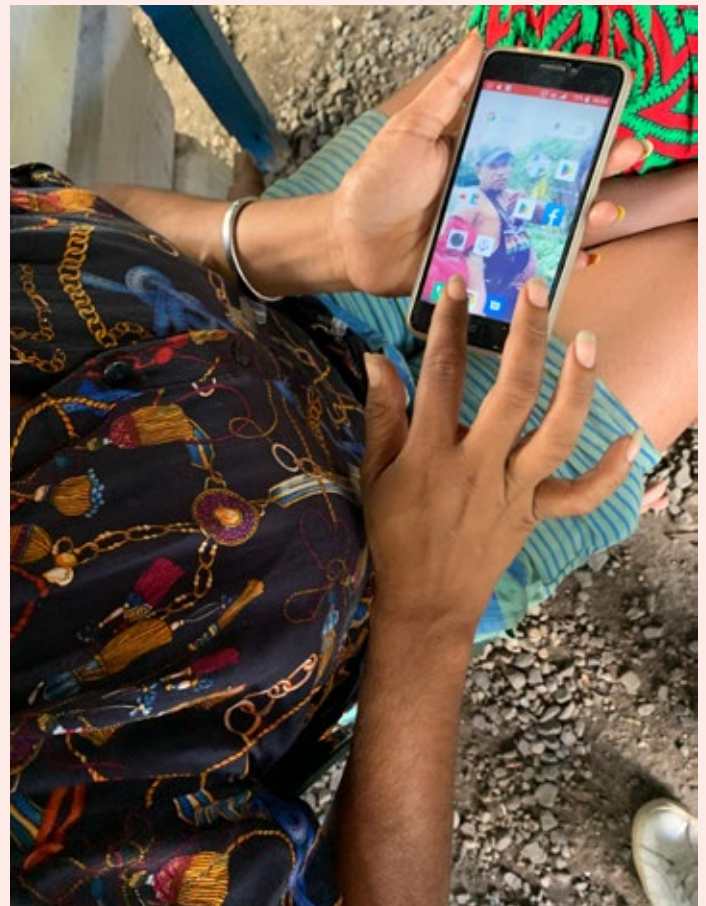
In lowara, 38 per cent of those who had been targeted by scams reported being harmed in some way. Users shared stories of receiving messages claiming they had won a competition, were being sent money or were told false stories about their family to extort money. Several people said that elderly and less-educated phone users were particularly vulnerable and had lost money due to fake contests for which they had purchased additional credit to win a prize. Some people in lowara distrusted MNOs and financial service providers as they **perceived them as allowing scams to take place.**

In northern Lebanon, there is greater digital literacy around scams. However, aid-related scams are common, and false information about humanitarian services or aid distribution makes it more challenging to deliver and access services. **Eleven per cent of users who were targeted by a scam reported being harmed,** for example, by paying to access fake resettlement schemes, wasting time or pursuing false information on humanitarian assistance. One humanitarian organisation operating in Lebanon shared a story of cash programming being negatively targeted through bulk SMS campaigns. As a result, they had to cancel disbursements and take additional security measures. On one occasion, an influencer actively spread disinformation on social media related to selection criteria for cash assistance, which disrupted disbursements.⁶⁰

A lack of trust in social media and an untrustworthy online environment have led many Syrian refugees in Tripoli and Akkar, particularly women, to be very conservative about sharing their mobile number with strangers or wider social networks. Ultimately, this may limit people's social interactions and shrink their digital worlds, leading to more isolation and social exclusion. Interviewees described checking with multiple people to verify information, contacting humanitarian organisations or calling their friends or relatives.

“So I do trust NGOs and the workers from there they helped me multiple times, and if in doubt about let's say schooling or something I just ask them they will confirm yes or no.”

– Female Syrian refugee, Akkar, Lebanon



⁵⁹ Phishing refers to the fraudulent practice of sending messages purporting to be from a reputable source to induce individuals to reveal personal information, such as passwords and credit card numbers, or to send money.

⁶⁰ Key informant interview with an international NGO, 2021.



Intercommunal tensions and conflict

False information has increased community tensions in both northern Lebanon and Bor, and to a lesser extent in Iowara.

In northern Lebanon, people emphasised the widespread problem of anti-refugee hate speech, both online and in physical spaces. A massive 68 per cent of users said they had experienced online hate speech.

In Bor, stories of fabricated, inflated or false incidents relating to conflict, politics or the peace agreement were common. There are many fabricated videos and images depicting false versions of events circulating on social media, notably on YouTube, Facebook and WhatsApp groups. Many users, particularly younger people, had seen false information (45 per cent in Bor Town; 31 per cent in the PoC camp) or hate speech (43 per cent in Bor Town; 35 per cent in the PoC camp). The following quote describes an incident that occurred one week into the data collection:

“For example, the way people were killed at Baidit. I saw someone reporting that the entire Bor was attacked. But we all know that it was Baidit Payam alone that was attacked and not the entire Bor. [...] This information will be passed on by one person after another and it is not true. Someone with family in Bor and is far away will feel like his family was attacked or lives threatened and will be worried.”

- Female IDP, PoC camp, South Sudan

These experiences have profound implications **on individual well-being and social cohesion**. Most Syrian interviewees were extremely reluctant to discuss MDH, but several stakeholders commented in interviews that **online hate speech can lead to aggression, harassment, home evictions, intercommunal tensions and social exclusion**. As a consequence, many Syrians in northern Lebanon keep a low digital profile and may limit their social interactions with the host community, both in real life and online.

“The refugees for sure (suffer from hate speech) – they are not always well received by the host community who view them as competition and a threat to their livelihoods and income.”

- International humanitarian organisation, Beirut, Lebanon

“It does indeed spread a lot of misinformation and hate speech, but we don’t get involved in that at all and we don’t interact with a lot of people outside.”

- Female Syrian refugee, Tripoli, Lebanon

Similarly, in South Sudan, false information often targets specific ethnic groups and can foster distrust between people and fuel ethnic tensions. The prevalence of inflammatory false information has made many hesitant to trust online information, including information about COVID-19 (see Box 7 and 8).

Box 7

Trusted sources of information

The prevalence of MDH has led displaced people to distrust many online sources. Newspapers were a trusted source of information in Iowara and Bor where they are perceived to be rigorously checked. Syrians in Lebanon tend to rely on international media channels over Lebanese ones, as well as on UNHCR. Interestingly, WhatsApp was also highly trusted in northern Lebanon and Iowara because it is thought to be possible to track information to a specific sender.

In all three contexts, Facebook was consistently perceived as the least trustworthy. The public nature of Facebook and limited verification mechanisms allow anyone to share digital content, and participants found it hard to distinguish between facts, news and personal opinions. Personal experiences of hate speech on Facebook had also affected Syrians' views of its trustworthiness.

“Because on Facebook, some information was not verified, before they posted them. It is mostly people’s opinion, sometimes they just assume things and post. But in the newspaper, they verified the information, from relevant stakeholders like the government, hospitals, they collect reports, and they publish them, and I trust newspapers.”

- Male West Papuan refugee, Iowara, PNG



Distrust of authorities and organisations

False information combined with concerns over privacy have also led to distrust of authorities, particularly among displaced people in northern Lebanon and Bor.

- **In northern Lebanon**, participants expressed concerns about information shared through their mobile phones or content they share over social media being used against them by local authorities (37 per cent of Lebanese; 25 per cent of Syrians). Syrians reported being concerned that their identities and personal information might be misused to track them or their family members. This is aggravated by concerns about state surveillance and a lack of information about how to protect personal information. Syrian refugees also fear state surveillance from the Syrian authorities, a practice that has been well documented.⁶¹

- **In Bor**, survey participants expressed concerns about information from mobile phones being used against them by local authorities (7 per cent in Bor Town; 21 per cent in the PoC camp).

Scepticism about information being misused by authorities has affected how displaced communities use mobile technology and access humanitarian assistance and services. For example, Syrian refugees preferred to avoid any contact with national authorities or government institutions and limited their social interaction and the information they shared through digital channels.

“I don’t have Syrian local groups (on social media) because they are usually monitored.”

- Female Syrian refugee, Akkar, Lebanon

⁶¹ Access Now. (2021). [Digital domination: how the Syrian regime's mass digital surveillance violates human rights.](#)

Box 8

Misinformation about COVID-19

The COVID-19 pandemic and associated lockdowns and isolation measures created a global state of uncertainty. Misinformation about COVID-19 ranged from conspiracy theories about its origin to traditional and home remedies. Later, these stories evolved to include information on COVID-19 vaccines, types, side effects and impacts. The massive scale of COVID-19 misinformation was recognised as early as February 2020 when the World Health Organisation (WHO) Director-General Tedros Adhanom Ghebreyesus said, *“We’re not just fighting an epidemic; we’re fighting an infodemic.”*⁶²

Participants in all three research sites reported widespread misinformation about COVID-19:

- In **northern Lebanon**, humanitarian organisations provided an extensive amount of information on COVID-19, both via mobile phones and printed materials. People acknowledged that some of these messages were simple, visual and easy to read and understand, particularly for those with low literacy. The messages contributed dramatically to a high level of awareness of COVID-19 signs, symptoms and how the virus is transmitted. Many Syrians, particularly women, stated that they took preventive measures based on this information, such as wearing masks and handwashing. **However, there was significant false information related to access to testing and the right of refugees to access vaccines.** This included the documents required, locations of vaccination centres and how to access vaccine registration.
- In **lowara**, concerns centred around the **safety of the vaccine**. The most common myths were that it would lead to death after five years, cause infertility or that vaccination represented the “mark of the devil”. Those with more education cited the potential harm to clinically vulnerable individuals as the reason they had not been vaccinated. Interviewees reported that, in one case, a vaccination team was “chased” out of the village and subjected to violence. Often these conspiracies were shared through videos on social media.
- In **Bor**, most respondents had received information about COVID-19 through their mobile phones and Boda Boda Talk Talk (BBTT), a public awareness project that broadcasts audio messages in local communities. False information spread online concerned the prevalence and risks of COVID-19, the safety of the vaccine and fake treatments. Attitudes towards the virus and vaccination were mixed, with some willing to be vaccinated, especially younger people, and older people being more sceptical about the disease in general.

⁶² Hua, J. and Shaw, R. (2020). “Corona Virus (COVID-19) ‘Infodemic’ and Emerging Issues through a Data Lens: The Case of China”. International Journal of Environmental Research and Public Health, 17(7).

MDH: Opportunities and recommendations

Worldwide, technology providers, governments and civil society are grappling with the challenges of MDH and technology. These concerns are reflected in both the digital worlds of people in humanitarian settings and pose challenges to the safety and security of affected communities. The ways in which MDH manifests vary greatly between settings since scams and MDH are context-specific, reflecting local issues and preoccupations. In some contexts, including northern Lebanon and lowara, MDH directly limits the ways people use their mobile phones. In all cases, it has real-world implications for community well-being.

For humanitarian organisations:

- **Humanitarians** should leverage existing tools to understand the information ecosystem, including the risks emerging from MDH and the implications for programming and responses. Examples include Mercy Corps' early work on protecting vulnerable communities from the weaponisation of social media,⁶³ Internews guidance on rumour detection and management in humanitarian settings⁶⁴ and the UNHCR guide on using social media in community-based protection.⁶⁵

For MNOs:

- **MNOs** can develop robust risk management strategies to mitigate the risk of fraud. The types of actions and level of implementation will be determined by the threat assessments of individual operators and will be specific to their services and the consumers in the markets where they operate.
- **GSMA Members** can join and work with the GSMA Fraud and Security Group and the GSMA T-ISAC, the central hub of security information sharing for the telecommunications industry. Drawing on the collective knowledge of MNOs, vendors and security professionals, the T-ISAC collects and disseminates information and advice on security incidents in the mobile community

in a trusted and anonymised way. The GSMA encourages information sharing to combat all types of fraud, including network fraud. MNOs can reduce the adverse effects by sharing their high-risk number data as quickly and widely as possible. This enables MNOs to build and maintain an accurate global resource of high-risk numbers.

For all stakeholders:

- **Humanitarians, MNOs and digital providers** should consider creating partnerships to raise awareness of digital risks and mitigations, especially relating to scams and online harms. They could also consider supporting training on how to recognise misinformation and disinformation, identify fraud and scams and prevent other online harms. It would be useful for this training to be part of a broader package of digital literacy training.
- **Work with digital service providers and social media companies** to address negative perceptions relating to use of such platforms. This could include improved policy and practice from providers themselves as well as working to enhance knowledge amongst communities about the operating practices of the platforms including, critically, privacy settings.

For governments and regulators:

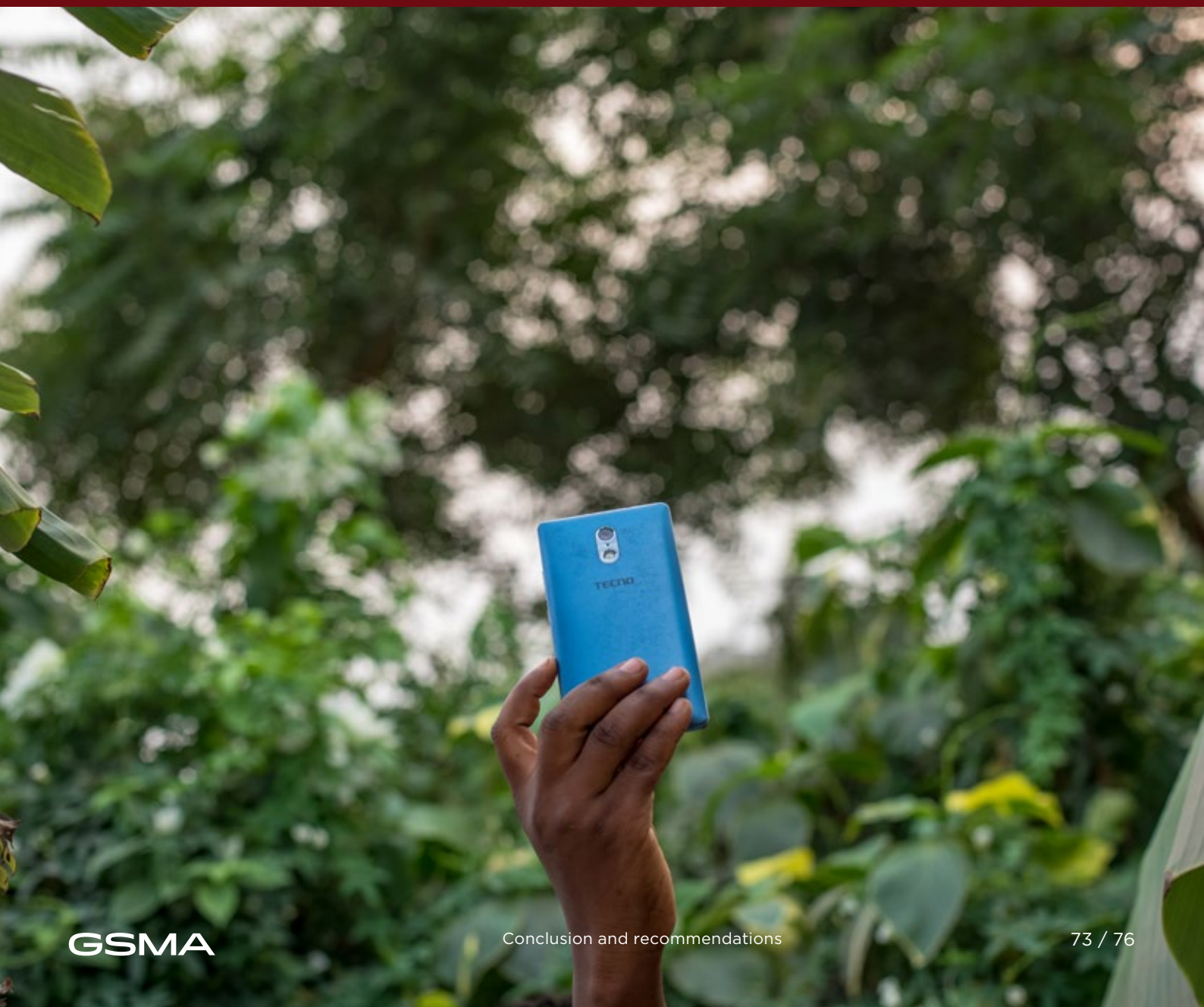
- **Governments and policymakers** should explore appropriate countermeasures to false online information. The EU Code of Practice on Disinformation signed by online platforms is an example of organisations collaborating to create an accountability mechanism, and opportunities to share information and best practice.
- **Governments** should work with humanitarian organisations and technology companies to collect evidence on the implications of MDH within humanitarian and fragile contexts and support the development of stronger policies to prevent online harms.

⁶³ Mercy Corps. (2019). *The Weaponization of Social Media*.

⁶⁴ Internews. (2019). *Managing Misinformation in a Humanitarian Context: Internews Rumour Tracking Methodology*.

⁶⁵ UNHCR. (2021). *Using Social Media in Community-Based Protection: A Guide*.

Conclusion and recommendations





Conclusion

Mobile technology connects displacement-affected communities to ever growing and more meaningful digital worlds. People's digital worlds vary depending on their goals, desires, aspirations and needs, as well as the structural factors that influence how communities can access and use mobile technology. For example, gender inequality and the risk of violence affects how freely women in lowara can use mobile phones. Economic hardships and political insecurity have limited the ability of both Syrian refugees in northern Lebanon and residents of Bor, South Sudan to reap all the potential benefits of mobile phones.

The three humanitarian contexts in this study were very different, including the ways in which people access, use and relate to their mobile phones. What is consistent across the three settings is the potential of mobile technology to address local priorities and issues and, to some extent, the risks that the spread of technology has introduced.

To design relevant and impactful digital humanitarian programming, a deep understanding of local digital worlds, both aspirational and structural, is essential. Making assumptions about technology and designing one-size-fits-all digital programming will not suffice. While humanitarian organisations have typically focused on the utilitarian benefits of mobile, particularly for sharing information, cash assistance and other services, digital worlds do not stop there. Better awareness of the digital worlds of people affected by crisis would help ensure that mobile-enabled programmes and services maximise the benefits and reduce the risks of complex mobile use.

The **benefits of mobile include an array of social interactions and digital leisure activities** that would be impossible otherwise, particularly for those living in camp settings. This research confirms that many people experience the benefits to well-being reported in other studies, including relaxation, distracting themselves from challenging situations and feeling connected to home.

However, these **benefits were not felt equally** across the groups researchers spoke with. Women were less likely to own smartphones, to regularly access the internet and to use their phones for a wider array of activities. Similarly, people with disabilities and older people were more likely to be excluded from digital leisure activities. Since these groups are already at greater risk of being marginalised, it is concerning that they are also being digitally excluded and missing out on the benefits that mobile technology might provide. Digital inclusion can be a complex effort that will likely require specific training on digital literacy, safety and security, as well as local interventions to address barriers. However, in the long run it can deliver numerous rewards for displacement-affected communities.

People living in humanitarian crises are particularly **vulnerable to the risks that digital inclusion can bring**, including being exposed to scams, misinformation, disinformation and hate speech. These risks have a real-world impact on well-being, personal relationships and intercommunal cohesion. Initiatives are needed to tackle the specific digital risks that arise in each humanitarian context, otherwise they may become a barrier to mobile use.



Recommendations

The preceding chapters have provided detailed recommendations for humanitarians, MNOs, digital providers and regulators. However, the broader findings and conclusions of this research have informed the following recommendations, which are relevant to those involved in the digital humanitarian ecosystem everywhere:

- Understand the **digital worlds of displaced people** before designing digital humanitarian programmes, ensuring programmes cater to their needs, preferences and capabilities.
- Take a **more holistic approach** to digital programming in humanitarian settings. Digital channels can provide wider benefits for displaced people beyond sectoral humanitarian priorities, including providing connections to home and improving their well-being.
- Continue to **prioritise digital inclusion**, being aware that even as gaps in basic mobile phone ownership close, some groups, including women, people with disabilities and older people, may continue to experience gaps in smartphone ownership, internet access and more advanced mobile uses.
- Consider how to **support digital literacy**, with a particular focus on marginalised communities who are at risk of digital exclusion.
- Acknowledge that digital programming will never reach, or be the preference of, every individual or demographic in a displaced or host community. **Provide meaningful alternatives** for them to access the support and services they need.
- Collaborate to **expand network infrastructure and connectivity**, given the broader benefits of digital inclusion.
- Work to **raise awareness of emerging digital risks** and continue to monitor risks as they develop alongside technology.

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