Landscape Report:

Mobile Money, Humanitarian Cash Transfers and Displaced Populations

MAY 2017

The GSMA represents the interests of mobile operators worldwide, uniting nearly 800 operators with almost 300 companies in the broader mobile ecosystem, including handset and device makers, software companies, equipment providers and internet companies, as well as organisations in adjacent industry sectors. The GSMA also produces industry-leading events such as Mobile World Congress, Mobile World Congress Shanghai, Mobile World Congress Americas and the Mobile 360 Series of conferences.

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The GSMA Disaster Response programme aims to strengthen access to communications and information for those affected by crisis in order to reduce loss of life and positively contribute to humanitarian response. We work to drive the creation and adoption of coordinated, impactful solutions and practices that leverage the ubiquity of the mobile technology under the umbrella of the Humanitarian Connectivity Charter

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CONTENTS

ACRONYMS

ACF	Action Contre La Faim
B2B	Business-to-Business
B2C	Business-to-Customer
CBI	Cash-Based Intervention
CICO	Cash-in Cash-out
CaLP	Cash Learning Partnership
CGAP	Consultative Group to Assist the Poor
DCA	Danish Church Aid
DFS	Digital Financial Services
FDMA	Federally Administered Tribal Areas Disaster Management Authority (Pakistan)
G2P	Government-to-Person
HMMI	Haiti Mobile Money Initiative
IDP	Internally Displaced Persons
IDMC	International Displacement Monitoring Centre
IRC	International Rescue Committee
KYC	Know Your Customer
MNO	Mobile Network Operator
NFC	Near Field Communications
NGO	Non-Governmental Organisation
NRC	Norwegian Refugee Council
OTC	Over-the-Counter
P2B	Person-to-Business
P2P	Person-to-Person
PIN	Personal Identification Number
POS	Point of Sale
SLA	Service Level Agreement
SMS	Short Message Service
WEF	World Economic Forum
WFP	World Food Programme
UNCDF	United Nations Capital Development Fund
UNHCR	United Nations High Commissioner for Refugees
UNCDF	United Nations Capital Development Fund
USAID	United States Agency for International Development
USSD	Unstructured Supplementary Service Data

Executive Summary

Displaced populations are growing, and are increasingly connected.

Over the past decade, natural disasters and complex emergencies have led to a sharp increase in the need for humanitarian assistance. By the end of 2015, an estimated 65.3 million people were forcibly displaced globally, due to conflict and persecution. That same year, natural disasters caused the internal displacement of a further 19.2 million people. Displaced populations are predominantly located in developing countries, in urban areas, where mobile money services may be more widespread than banks or other formal financial institutions. GSMA data shows that at least 19 markets have more mobile money accounts than bank accounts and 37 countries have ten times as many registered mobile money agents as they have bank branches. At the same time, displaced people are increasingly connected, living in places covered by mobile networks and with mobile phone ownership rates that rival those of the world's overall population.

Cash transfers are increasingly used as a modality for delivering aid. Cash-Based Interventions (CBIs), dispersed via mobile money can deliver a number of benefits to beneficiaries, the humanitarian sector and the wider ecosystem.

Cash transfer programmes by a humanitarian organisation can take several forms, from paper vouchers to pre-paid cards or digital transfers. If deployed effectively, cash transfers via mobile money can deliver benefits to the humanitarian sector, including traceability, efficiency, timeliness and cost-effective delivery of aid. Furthermore, where beneficiaries have access to a mobile wallet, CBIs can stimulate local economic growth and help build empowerment and resilience by giving users access to a broad suite of digital financial services, including savings and lending, utility bill payments, government service payments, and remittances.

In humanitarian contexts, cash transfer programmes utilising mobile money can take one of three forms. Each modality has different benefits and trade-offs.

These options are: a fund transfer directly into a beneficiary's mobile money account; a fund transfer via a mobile voucher for the beneficiary to cash-out; and a fund transfer via a mobile voucher for a pre-determined purpose, such as buying food from a specific merchant. Each of these modalities offer different benefits and trade-offs. Implementing a mobile money-based cash transfer programme using any of these three approaches is complex and requires significant planning to ensure beneficiaries can access their funds quickly and in a user-friendly format. Leveraging existing local mobile money ecosystems and services is advantageous from a cost and long-term financial inclusion perspective. Where mobile money ecosystems are nascent, building out the necessary capacity to facilitate humanitarian cash transfers during a crisis adds another layer of complexity, however there are a few examples where a humanitarian use case may drive investment in a mobile money service in advance. Preparedness remains key regardless of the modality and the context.

Mobile money will not always be a relevant mechanism for the disbursement of aid.

There is a need to establish a common understanding of service delivery between the humanitarian sector and mobile money service providers. This includes an understanding of network and agent coverage, agent liquidity, device ownership and the gender gap in access to mobile devices and mobile money accounts. The lead time required to establish effective partnerships must also be taken into consideration by both parties. These factors

will determine whether mobile money will be a feasible or appropriate channel for aid delivery in any given humanitarian context.

The potential for mobile money in a humanitarian context depends on the relevant regulatory environment and reforms may be required to unlock the opportunity.

These reforms can include: the extension of SIM dormancy periods by mobile network operators to facilitate the receipt of infrequent cash disbursements; the deployment of new fixed or roving mobile money agents to perform cash-out; the implementation of strategies to ensure sufficient agent liquidity, including the staggering of beneficiary payments by humanitarian organisations to relieve pressure on mobile money agent networks; and the implementation of special KYC rules by the regulator to ensure persons without identification are able to benefit from mobile money services.

Displacement has different phases, during which different types of support and service are needed. This has implications for how cash transfer programmes utilitising mobile money should be structured.

Initial short-term needs for basic support during arrival and initial displacement phases may be more effectively met via in-kind aid and voucher-based programmes, allowing populations without official ID documentation to benefit. Whereas cash payments via transfers of funds into mobile money accounts may be more appropriate for stable or protracted displacement contexts, enabling access to a larger suite of digital financial services (savings, lending, bill payment). For beneficiaries, this can accelerate self-sufficiency, dignity, resilience, community integration and longer-term financial inclusion.

The full potential of cash disbursement via mobile money can be realised where a supporting mobile money payments ecosystem exists.

All stakeholders, from beneficiaries to humanitarian organisations and mobile money providers have a lot to gain from the proper deployment of mobile money for aid disbursements. The true potential of cash disbursement via mobile money is reached when an ecosystem exists to support other services, such as remittances, airtime top-ups, savings and lending, and bill payments. These services in turn support financial inclusion and help to build resilience, and most importantly, can better serve displaced populations worldwide.

Introduction & Background

An estimated 65.3 million people were forcibly displaced by conflict and persecution globally by the end of 2015: the highest number ever recorded by the United Nations High Commissioner for Refugees (UNHCR). In addition, a further 19.2 million people were estimated to be displaced due to natural disasters (IDMC[1]). Increasingly, humanitarian organisations are choosing to support beneficiaries through Cash-Based Interventions (CBIs) rather than in-kind assistance. As this trend continues, much attention is being given to the benefits of digital channels for cash transfers.

Mobile network operators (MNOs) and the connectivity they provide, are playing an increasingly important role in tackling humanitarian challenges. The use of mobile money services for the transfer of humanitarian assistance is one way in which the mobile industry and humanitarian sector are combining expertise to support both displaced populations and the organisations working to serve them.

Meeting a Growing Need for Humanitarian Cash Assistance

"By injecting money into the local economy, cash transfers can create a virtuous circle of production and consumption. This fuels growth and, in conflict-related settings, promotes economic rebirth".[2]

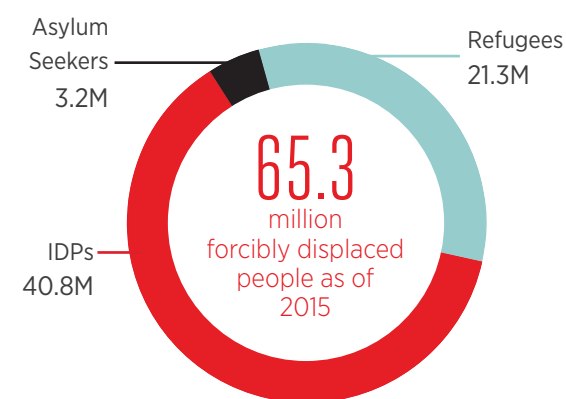-World Food Program Cash Based Aid

As the number of displaced people worldwide surges, humanitarian organisations and governments are working to identify more efficient ways of securely disbursing aid. Traditionally, support for refugee and displaced populations has come in the form of in-kind assistance such as food, health care and shelter in a camp or other contained environment. This approach is designed to meet immediate needs, and is particularly suited to environments without a functioning marketplace. Today, the environment within which many displaced populations reside is shifting.

Several factors, including (a) the desire to empower beneficiaries by providing them with greater choice, (b) the increasingly urban, out-of-camp settings in which displaced individuals live and therefore have access to functioning markets; and (c) the proliferation of digital financial services, have led to the introduction and spread of cash-based interventions (CBIs). CBIs are a monetary transfer (either cash or voucher and more recently have included broader digital transfer mechanisms) which can be used for one-time payments or as a form of on-going support to beneficiaries. A large majority of the payments are conditional[3] (i.e. the recipient needs to fulfil certain criteria to get the aid).

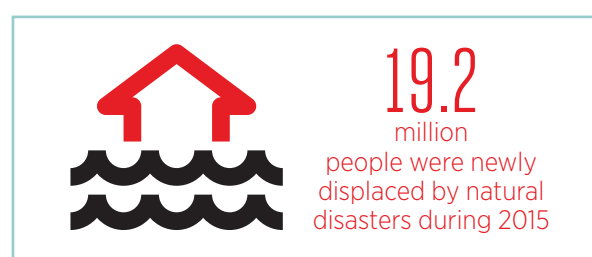CBIs provide several benefits that do not accrue from

Source: UNHCR Global Trends 2015

Figure 1 a

Total Number of People Forcibly Displaced Due to Conflict and Persecution as of 2015

Asylum Seekers 3.2M

Refugees 21.3M

65.3 million forcibly displaced people as of 2015

IDPs 40.8M

Source: IDMC

Figure 1 b

19.2 million people were newly displaced by natural disasters during 2015

the use of in-kind support. Beneficiaries can purchase goods or services which best meets their needs, enhancing their sense of dignity. CBIs can also offer a path to self-sufficiency for the long-term displaced, with evidence suggesting improvements to financial security, health, reduction in 'negative coping strategies', as well as benefits for the local community.[4] Research in Rwanda to understand the impact of in-kind aid versus cash transfers revealed that in areas where refugees received cash assistance, the benefit to the local community for each dollar distributed was between US$1.51 and US$1.95. In contrast, when food aid was distributed, the benefit to the local community generated by each dollar of aid was lower, at US$1.20.[5]

Many leading humanitarian organisations have plans to use digital cash transfer mechanisms to disburse CBIs. Between 2009 and 2014, the use of cash by the World Food Programme (WFP) increased from US$10 million (less than 1 per cent of total aid) to US$3 billion,[6] and by the start of 2016 it was estimated that cash-based programming accounted for more than 25 per cent of WFPs total spend on assistance.[7] In 2000, UNHCR implemented 15 programs that relied on cash and cash-alternatives; by 2015 that number had increased to 60 programs, with a budget of approximately $465 million.[8] At the World Humanitarian Summit in 2016, United Nations Secretary General, Ban Ki Moon, made an appeal for cash-based assistance to become the default method to support people in emergencies wherever possible. UNHCR adopted a specific commitment to scale up the use of CBIs, and to double the amount of funds programmed for CBIs by 2020.[9] The policy states explicitly that UNHCR operations will, as a rule, use digital means to deliver cash-based interventions.

Many humanitarian agencies (including those that took part in this study) are agnostic about the type of service provider that is used to disburse CBIs and increasingly savvy about implementing cash-for-aid solutions. They seek partners who can meet strict service level agreements and commit to performance targets, while offering a competitive price.

Understanding Displacement Definitions and Trends

DEFINITIONS

Displacement in this report is defined as the forcible uprooting of people from their homes by violent conflicts, environmental threats, human rights violations or other traumatic events.

Those who remain within the borders of their own country are known as **internally displaced persons (IDPs).**

Those who are forced to flee outside the borders of their own country are known as **asylum seekers** until asylum status is granted, at which point they become **refugees**.

In this publication, we use the term **'displaced persons'** to encompass a wide scope of vulnerable populations.[10]

Each of these groups of people are entitled to a different set of international and national protections and legal rights[11]; we will not focus on these differences, except where the issue is relevant to humanitarian cash transfers.

Source: UNHCR, November 2016

Figure 3

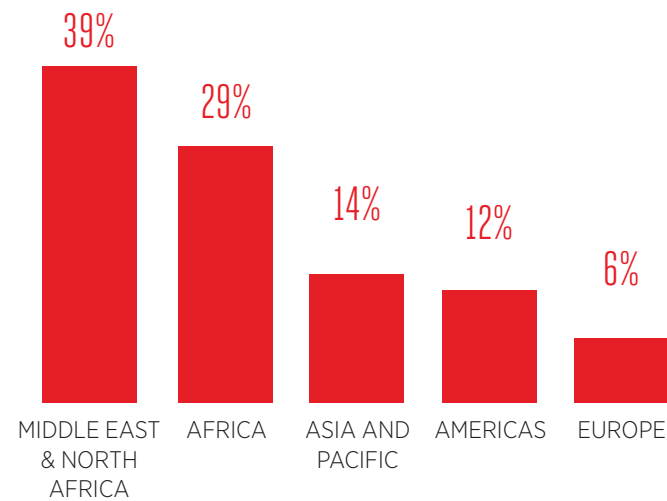Proportion of Displaced Persons by Host Region

- MIDDLE EAST & NORTH AFRICA — 39%
- AFRICA — 29%
- ASIA AND PACIFIC — 14%
- AMERICAS — 12%
- EUROPE — 6%

Figure 4

Displaced Population Key Figures

|	
Total number of people newly displaced due to natural disaster during 2015[12]	19.2 million (not all require humanitarian assistance and many may be displaced for a short period of time)
Total number of people forcibly displaced due to conflict and persecution as of 2015[13]	65.3 million, up 5.8 million over the previous year
Breakdown of those displaced due to conflict and persecution	63% IDPs, 32% refugees, 5% asylum seekers
For Refugees displaced by conflict and persecution	
Top five countries of origin[14]	1. Syria, 2. Afghanistan, 2. Somalia, 4. South Sudan, 5. Sudan
Top hosting countries[15]	1. Turkey, 2. Pakistan, 3. Lebanon, 4. Iran, 5. Ethiopia, 6. Jordan
Average length of time in a refugee camp or other displacement scenario	**The International Rescue Committee estimates the average length of displacement is 25 years[16]**
Residency location[17]	~60% urban and growing ~40% rural
Phone ownership by household[18]	~85% urban ~60% rural

Trends: The increasing number of individuals who are displaced has driven the number of those receiving humanitarian benefits to an all-time high. Several characteristics that define displaced populations today, including the relatively long duration of displacement and the increasingly urban living environments, coupled with the proliferation of mobile phones, support the use of well-designed mobile money-based aid payment interventions.

Connectivity: Today, roughly 93% of refugees live in areas that are covered by at least a 2G network and 62% are living in areas covered by 3G networks. Those living in urban settings are far more likely to have coverage than those living in rural areas.[19]

Urbanisation: Nearly 60% of displaced people today live in urban areas, and the proportion is growing. Yet, displaced people are often not on an equal footing with the local population. Many, for example, are excluded from the formal job market.[20] Full local integration and naturalisation are often blocked by policy restrictions, including the need for work permits. Displaced people may also reside in urban slums, where their specific needs may be difficult to distinguish from the needs of the host population.

Source: UNHCR and Accenture

Figure 5

Mobile Network Coverage and Phone Ownership, Refugees vs. Global Averages[21]

- RURAL NETWORK COVERAGE
- URBAN NETWORK COVERAGE
- TOTAL NETWORK COVERAGE
- RURAL PHONE OWNERSHIP
- URBAN PHONE OWNERSHIP

REFUGEES   GLOBAL POPULATIONS
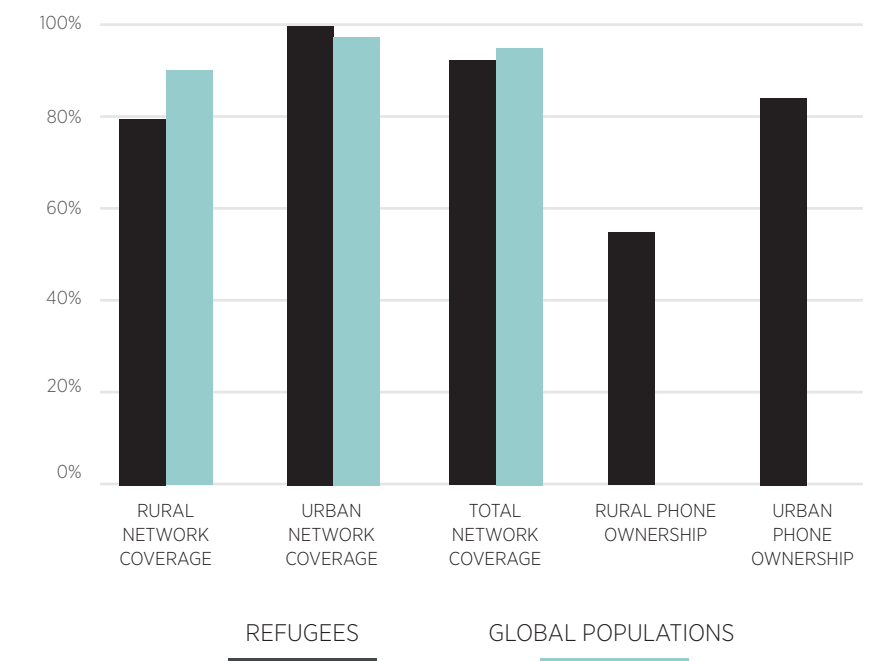
"I got to use a mobile phone for the first time when I got to the transit centre, I am so happy to have this mobile phone and will continue using it even when I finish withdrawing the aid received on mobile money. It is now part of my address and will help me get in touch with my friends and family"

-Rwanda returnee, Nkamira Transit Centre, Rwanda

This returnee fled Rwanda in 1994 and returned in November 2016 via the Government of Rwanda and UNHCR-supported resettlement program.

Cash-Based Interventions and Mobile Money: Enabling Environments

Displaced populations are overwhelmingly concentrated in developing countries, where the existence of formal banking services, including necessary infrastructure such as ATMs and bank branches, is often limited. The World Bank estimates that there are over two billion unbanked individuals globally[22]. According to the McKinsey Global Institute, there are only 50 bank branches and ATMs per 100,000 adults in emerging markets versus 140 for developed countries.[23] The study further confirms the findings of a 2013 Bill & Melinda Gates Foundation study that the cost of bank-based and ATM cash-in and cash-out (CICO) transactions in emerging markets can reach as high as US$5.30 and US$1.50 per transaction respectively, compared to a cost of less than US$0.50, and even as low as US$0.10, for agent-based transactions.[24] The need for flexible and cost-effective CBIs, especially in locations lacking access to traditional banking infrastructure, can be met with digital solutions, including mobile money.

CBIs in general, and their digitisation—including via mobile money—can be a key means through which to encourage and support a transition to self-sufficiency. A supportive ecosystem, both regulatory and technical, must exist to enable the use of mobile money-based CBIs, including either a cash-in cash-out (CICO) network, a merchant acceptance network, or both.[25]

The potential of mobile money

The shift to the digital distribution of cash has been enabled by the emergence of innovative digital financial services, in particular the unprecedented rise of the mobile money industry. Mobile money is a service whereby customers use their mobile device to store, send and receive monetary value.

GSMA data shows that at least 19 markets have more mobile money accounts than bank accounts, and 37 markets have ten times as many registered mobile money agents as they have bank branches.[26] Many of the countries which host displaced populations have mobile money networks that exceed the strength and prevalence of their formal banking network.

Across most developing markets, access to banking products and services, even basic bank accounts, is limited. Only five per cent of individuals in advanced economies lack a formal financial account, but across emerging economies the average is a striking 45 per cent.[27] This is all the more true for displaced people who may not have the identification documents, required under Know Your Customer (KYC) regulations, to open an account. In many countries where mobile money is available, regulators have introduced a proportionate, risk-based approach to KYC that allows people with alternative proof of identification to open accounts. KYC is discussed in additional detail on page 23.

MNO-led mobile money providers may view those displaced for long periods of time as a viable customer base for voice and data services, in addition to mobile financial services. Although there can be challenges for MNOs involved in serving this population, there have also been examples of successful sustainable service provision.

Cash-Based Interventions: Views of Key Humanitarian Organisations

UNHCR Policy on Cash-Based Interventions 2016

"UNHCR operations will, wherever feasible, use direct transfer arrangements for delivering cash assistance to refugees and other persons of concern and rely on private sector financial and mobile cash transfer innovations and capabilities. Except where special local or other circumstances compel the use of other modalities, cash will ideally be provided through digital means such as bank cards and mobile money in preference over vouchers and other means considered as less optimal."*

WFP Cash-Based Transfers 2017

"While cash does not fit every situation, it does fit an increasing number of them. This explains the strategic shift towards it: it now covers more than a quarter of WFP's portfolio.

The system's advantages are varied:

- *It is fast, efficient and generally secure…*
- *It offers greater choice…*
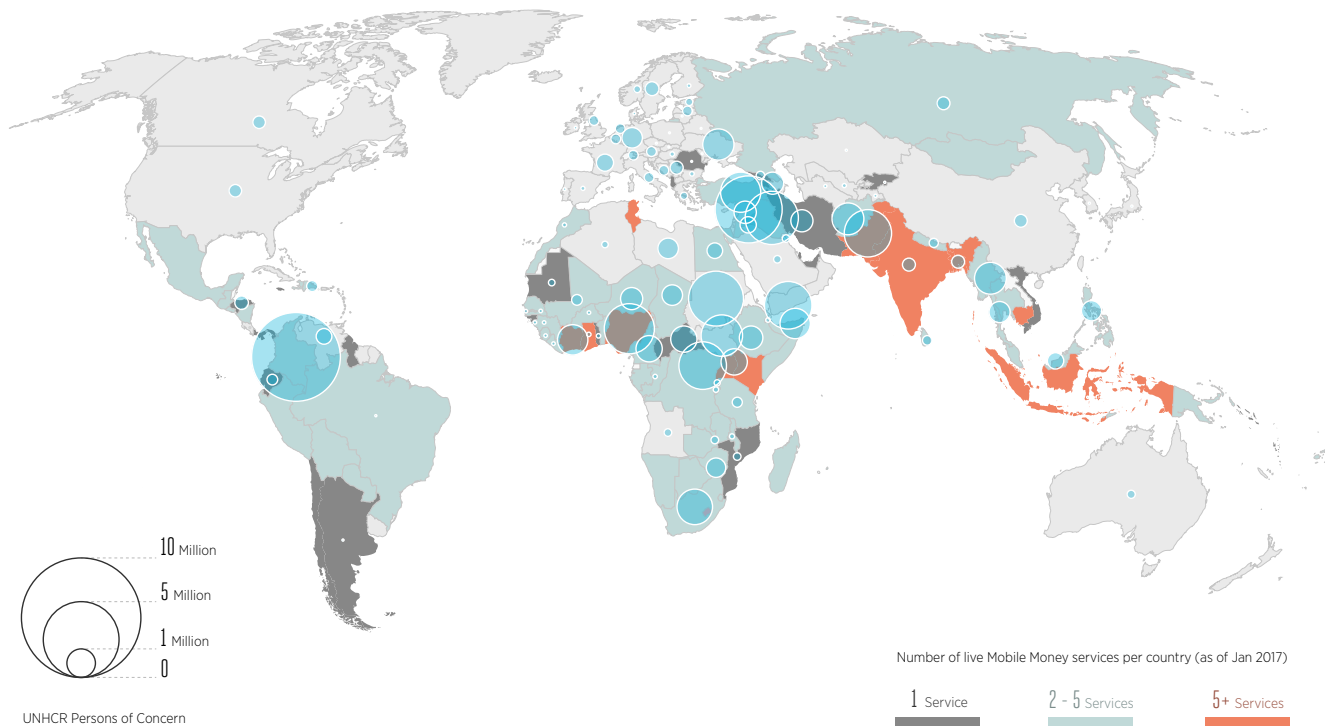- *It stimulates trade…*
- *It strengthens partnerships with government…"^*

*UNHCR policy on cash-based interventions at http://www.unhcr.org/581363414.pdf

^WFP blog post on their policy at https://www.wfp.org/node/649696

Source: UNHCR popstat database and GSMA

Map of live mobile money services by country and number of UNHCR Persons of Concern

10 Million
5 Million
1 Million
0

UNHCR Persons of Concern

Number of live Mobile Money services per country (as of Jan 2017)

1 Service   2 - 5 Services   5+ Services

Overview of Mobile Money Services in Humanitarian Cash Transfer Scenarios

Today, 58 per cent of the world's 277 mobile money services, spanning 92 countries, are run by MNOs. There are over half a billion registered mobile money accounts globally. Mobile money agents, of which there are 4.3 million registered today, play the crucial role of converting cash into e-money and vice versa, thereby helping customers to get funds in and out of their mobile money accounts.
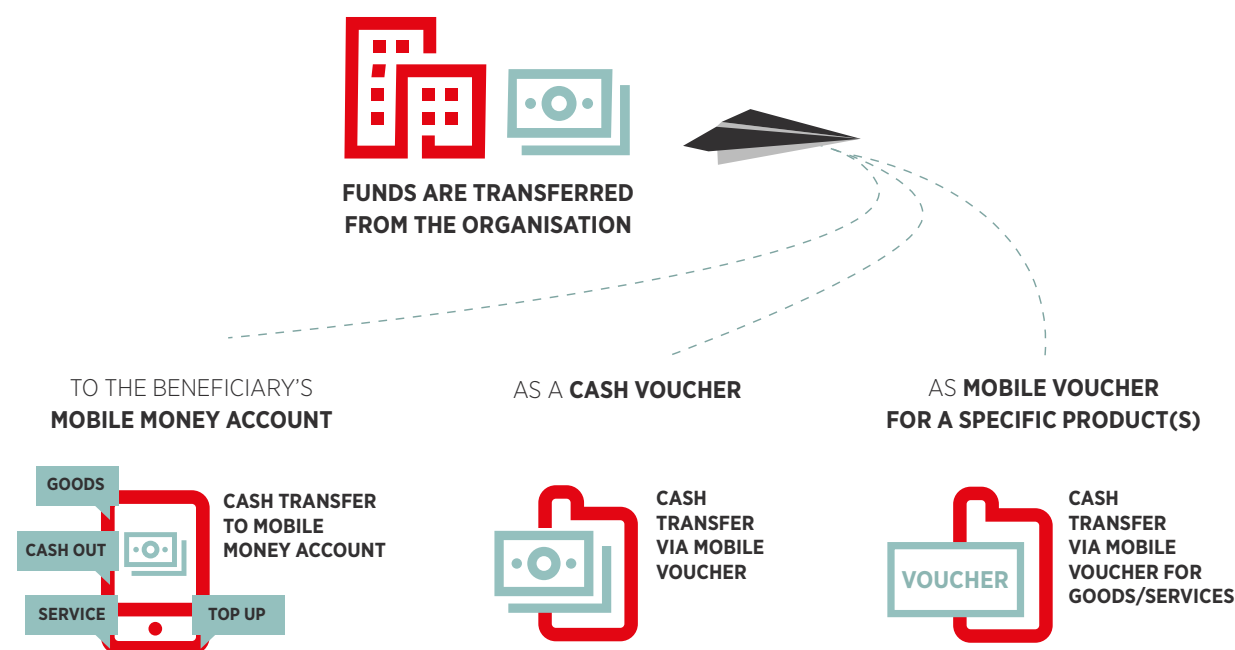
Mobile money started out as a simple person-to-person transfer and airtime purchase service. As the industry matures, providers are increasingly offering a broad range of digital financial services, including bill payments, savings and lending, bulk payments, merchant payments, international remittances and even payment of government services including education, health, taxes, and social security.

Bulk payments can be used by organisations (governments, businesses, and donors) to disburse funds to individuals. These are outlined below, within the broader list of non-mobile money digital distribution channels.

Figure 6
Digital Channels for Cash Transfer Programme Disbursements

	E-transfer mechanism		Transaction Point	Use
Cards	Magnetic card Smart card Contactless card		Vendor with POS or ATM	Goods/services + Cash
Mobile Money	**Cash transfer to a mobile money account:** Funds are transferred from the organisation to the individual's mobile money account. The recipient must be registered for a mobile money account in order to access these funds, which they can then either cash-out at a mobile money agent outlet, or spend using the range of financial services available via the mobile money account. If the sending organisation allows it, funds can even be stored in the account for future use.		Agent / vendor with basic phone	Cash + Mobile money services including transactions like money transfers + Goods / services
	Cash transfer via mobile voucher: Funds are transferred as a mobile cash-out voucher, which provides the recipient with the means to access a set value of cash that they can withdraw at an agent outlet. Recipients receive an SMS on their phones and use this and identity documents to cash-out at a nearby agent. The recipient does not need to open a mobile money account in order to access the funds.		Agent / vendor with basic phone	Cash
	Cash transfer via mobile voucher for goods and services: Funds are transferred as a mobile merchant voucher, which provides the recipient with the means to acquire a product/service (e.g. food item or agricultural input) from designated merchants. The recipient does not need to open a mobile money account to spend the voucher, and cash cannot be withdrawn.		Vendor with basic phone	Goods / services
e-Voucher	Electronic voucher		Vendor with smartphone or computer	Goods / services

Figure 7
Types of Mobile Money Bulk Disbursements

FUNDS ARE TRANSFERRED FROM THE ORGANISATION

TO THE BENEFICIARY'S
MOBILE MONEY ACCOUNT

AS A **CASH VOUCHER**

AS **MOBILE VOUCHER FOR A SPECIFIC PRODUCT(S)**

GOODS

CASH OUT

SERVICE   TOP UP

CASH TRANSFER TO MOBILE MONEY ACCOUNT

CASH TRANSFER VIA MOBILE VOUCHER

VOUCHER

CASH TRANSFER VIA MOBILE VOUCHER FOR GOODS/SERVICES

These three transfer types can take place either as part of an open loop system, in which the recipient can use mobile money or a voucher at any agent or merchant associated with their service provider, or within a closed loop system where recipients can only use funds at pre-approved merchant locations or cash points

Mobile money-enabled bulk disbursements were one of the fastest-growing mobile money products in 2016. Across a number of developing markets, mobile money providers are increasingly being trusted by governments, businesses and donors to facilitate payments to large groups of people. In December 2016 alone, these groups disbursed US$718 million to citizens via mobile money—but just 2.3 per cent of this was donor-to-person transfers.

Considerations for choosing the appropriate type of mobile money disbursement option:
Humanitarian payments are unique in many ways, including the possibility that a large percentage of the recipient population may lack identity documents and may have low literacy levels. They may also not own mobile phones and, may lack experience understanding the nature of PIN codes. The attributes of both the end-users, as well as of the local mobile money environment, must be conducive to successfully deploy humanitarian cash for aid programmes (see figure 8, page 17).
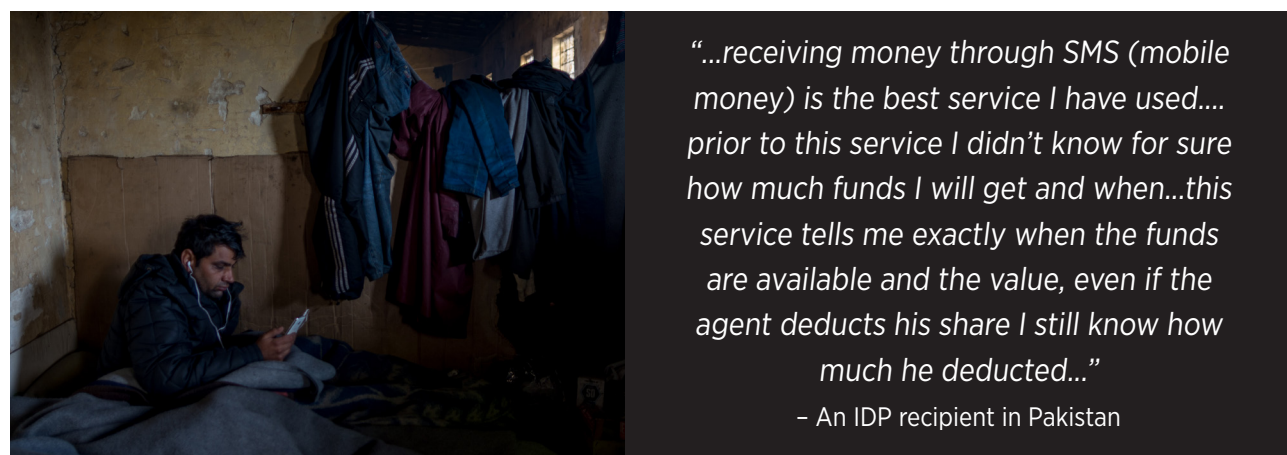
"...receiving money through SMS (mobile money) is the best service I have used....prior to this service I didn't know for sure how much funds I will get and when...this service tells me exactly when the funds are available and the value, even if the agent deducts his share I still know how much he deducted..."
– An IDP recipient in Pakistan

Figure 8
Attributes and General Prerequisites that Impact Utility of Mobile Money for the End User

Enablers for Digitization of Humanitarian Cash Transfers via Mobile Money		
• Required ID documents • SIM ownership and easy access to a mobile phone and connectivity • Service designed to suit beneficiaries, including things such as language and menus • Beneficiary training on the service and how to use it • Comfort in phone handling and basic literacy		
Mobile Money Account	**Voucher for Cash-Out**	**Voucher for Purchase**
How it works Beneficiaries, who register for the service are eligible to receive funds to their mobile money account, which they can then cash out at an agent outlet, save in the account or use to make purchases.	Beneficiaries identified by the humanitarian organisation are eligible to receive a voucher which they can then cash out at an agent location.	Beneficiaries, identified by the humanitarian organisation, are eligible to receive a voucher which they can then redeem at participating merchants for goods or services, often food items. Vouchers can either be for a designated monetary amount, or designated unit amount.
Benefits for beneficiaries + humanitarian organisations Beneficiaries: • Ability to cash out • Ability to send or receive funds from another organization or individual, or pay for a good or service via the mobile money account • Access to the broader range of financial services offered, including savings and lending • Often safer than holding physical cash Humanitarian Organisations: • Transparent, cost effective and efficient means to deliver cash transfers • Can help in building resilience • Helps local host economy as cash received can enter local markets	Beneficiaries: • Ability to cash out • No need to go through the mobile money account opening process to access funds on the voucher • Often safer than receiving physical cash Humanitarian Organisations: • Transparent, cost effective and efficient means to deliver cash transfers • Helps local host economy since cash withdrawn from voucher is usually spent in local markets	Beneficiaries: • Potential ability to access service even if lacking ID documentation that complies with national financial services KYC regulation. However, humanitarian agencies may want to put in place their own ID requirements to ensure correct identity at point of purchase • Often safer than handling cash • Often easier than transporting physical items Humanitarian Organisations: • Cost effective, transparent and efficient means to deliver aid; however, requires the monitoring of physical availability and price of goods or services provided for by the voucher • Ability to track the purchases of beneficiaries digitally, and limit the use of the funds to the designated purpose • Helps local host economy as goods and services are often procured locally (especially food items)
Considerations • Is there a healthy network of mobile money agents in proximity to the beneficiaries? If not, how feasible is it for beneficiaries to cash out? Is it possible to support the enhancement the mobile money agent network? • The KYC burden is likely to be highest with this approach. Do beneficiaries have sufficient ID to meet KYC regulations? Is there a tiered-KYC framework in place that could help ease the registration process? • Need to consider whether common enablers are in place.		• Is there a relevant network of merchants in proximity to the beneficiaries so that vouchers can be exchanged for goods and services? If not, what will it take to set one up? • Special equipment (e.g. POS devices) at merchant location may not be deployed as quickly as those that leverage pre-existing devices such as a phone. • Is there a means to ensure proper identification process of the beneficiary who walks into a merchant location in order to 'spend' the voucher? • Need to consider whether common enablers are in place.

Preparing for Mobile Money-enabled Humanitarian Aid Delivery

Key requirements:
- A need for commercial sustainability
- Enabling environment for mobile money feasibility
- Preparedness: Building partnerships and agreements in advance

Humanitarian organisations prioritise the contextual appropriateness of aid disbursement solutions for the populations they want to serve. The channel and technology used to disburse CBIs must be selected, in part, based on the relevance to the situation and to the nature of the displacement (figure 10, page 29). In crisis situations, reaching the intended beneficiary quickly is paramount to the beneficiary's physical well-being. However, long-term displacement scenarios may not require such a quick response time.

In the majority of instances, including examples provided in this report, humanitarian agencies seeking to disburse cash transfers to displaced populations issue a public tender to potential providers. Some tenders specify that the disbursement must be carried out digitally. Agencies may hold meetings to engage the private sector in preparation for the tender, in part to educate themselves on what is possible and to enter into an open discussion with potential providers about requirements.

"In areas where emergencies are chronic or recurrent, there should be a push, before the next crisis, for development of new financing models to meet costs of investment and for preparedness frameworks, between donors, agencies and the solutions providers."

- New Technologies in Cash Transfer Programming in Humanitarian Assistance, 2011

For MNOs, disbursing funds to large populations represents a significant opportunity to reach new customers, as well as increase mobile money usage. Serving displaced populations also provides an opportunity to learn about this segment of customers, their needs, what it takes to serve them. Factoring these benefits into the broader business is important, as the service must be commercially viable in the long term to attract sustained interest from payment providers, even if at first the provider must make investments in the agent or merchant network to ensure feasibility. Humanitarian organisations generally understand this dynamic.

"While it may be uncomfortable, particularly for humanitarians, to think about people affected by crisis as a 'market segment' or crises as a part of market expansion strategy, without analysis of the potential returns for financial services providers to serve populations in risky settings, investments in digital infrastrcture will not be made in the places that need it most."
– UNCDF and International Rescue Committee.[28]

Even in under-developed mobile money environments such as Iraq and Afghanistan, MNOs have bid successfully on tenders. As the engagements are still in pilot phase, it is too early to draw conclusions about engaging at such a nascent stage of mobile money. However, Mobile money providers appear eager to engage with humanitarian organisations to learn about serving this market segment, as demonstrated through continued interest in tenders.

A key challenge for both MNOs and beneficiaries is presented by different humanitarian agencies having different requirements and beneficiary registration processes. This complicates both the use of existing commercial services in market and the on-boarding of beneficiaries.

The leveraging of existing mobile money-based services by humanitarian organisation to distribute cash quickly and accurately can, if designed well, meet humanitarian organisations' needs, but it requires significant planning. Even in markets where mobile money is already live, an under-developed agent/merchant network, or a restrictive KYC environment, can prevent success. Still, mobile money is proving its worth as a mechanism for humanitarian

cash transfer disbursements across several markets, some of which are explored in this report in detail.

Mobile money providers who have previous experience disbursing payments for businesses, governments and others in a non-emergency context have, in most cases, executed those disbursements with the benefit of significant planning and long transition periods that allow for pilot testing and learning. For example, **work funded by the Bill & Melinda Gates Foundation in Uganda in 2016 demonstrated that the planning period for a bulk payment normally takes a minimum of five months from the point that the management team of the paying organisation decides to implement bulk payments, until the first payment is made, including a well-designed test period.[29]** In this case, the mobile money ecosystem was already present in at least some form, including with some form of agent network. In cases of emergency humanitarian contexts such long lead times may not be possible.

Guiding Principles

A large number of the biggest players in humanitarian aid, including UN agencies, donors and private sector representatives including the GSMA, MasterCard and Western Union, participated in creating principles on public-private cooperation in humanitarian payments and for digital payments in humanitarian response. Collectively, these stakehodlers "believe that cash transfers in humanitarian response can be leveraged to prioritize emergency needs first and, at the same time, build a bridge towards sustainable development goals including economic, social, and financial inclusion".[30] Specifically *"When cash is transferred through digital payment mechanisms...this potentially provides an opportunity to offer recipients a basic transaction account that can be leveraged in the future for more robust financial inclusion".*

Principles on Public-Private Cooperation in Humanitarian Payments

1. Build strategic partnerships pre-crisis to prepare for response
2. Design the transfer mechanism
3. Collect data that is relevant, proportional and standardised/shareable
4. Protect, empower and serve the customer
5. Encourage coordinated approaches
6. Build institutional capacity for partnerships

World Economic Forum
January 2017

'Barcelona Principles' for Digital Payments in Humanitarian Response

- Select payment mechanisms for recipient empowerment
- Collect data that is relevant and proportional
- Safeguard the right to data privacy and protection
- Facilitate pathways to financial inclusion when possible and appropriate
- Prioritize and build on existing local systems and infrastructure
- Invest in organisational preparedness to quickly leverage digital payments, when appropriate
- Develop institutional and collective capacity for effective humanitarian - private sector engagement
- Coordinate the use of multipurpose and shared payment systems

These 8 principles were the output of a convening in Barcelona including more than 20 humanitarian and financial inclusion practitioners and donors in February 2016.

Apart from the possible signing of Service Level Agreements (SLAs) and other foundational agreements, there are broader needs that fall under the category of preparedness today. In countries where there is an interest by donor and humanitarian organisations to engage in mobile money disbursements, a clear understanding of agent network requirements and potential liquidity needs, both for the day-to-day running of the service, and for the additional pressures it may face during an emergency use case, should be developed.

WFP's Mobile Money Focus in Southern Africa; An approach to preparing for implementations

The World Food Programme is planning to increase the transfer of CBIs via mobile money transfers in eight countries in Southern Africa by creating a working agreement with international mobile operators in the region. WFP issued a call for applications from financial service providers for provision of cash transfer services. No banks applied but a number of MNOs did. The WFP Southern Africa - MNO agreement is being put in place following the tender award.

From WFP's perspective, this process encouraged service providers to come forward with innovative offerings beyond the standard products already available in the marketplace. The process was designed to allow for the development of service templates that can be used by country offices to suit their specific needs.

"We are leveraging the rapidly growing technologies and financial services in the region such as mobile money to increase the scale and reach of cash-based transfer operations to serve people in need,"

-Kenn Crossley, WFP's Deputy Director of Programme and Policy.*

From the MNO's perspective, such agreements help to deepen their understanding of how they can best serve this potential new customer base. Given the increasingly long-term nature of displacements, MNOs may be able to serve these individuals for years to come.

Before the adoption of the regional agreement, WFP headquarters was unfamiliar with mobile money services, and perceived a real risk in transferring funds from their own account to the MNO to be disbursed to beneficiaries. Once this process was well understood at both the headquarters level and within the country offices, and sample contracting was developed, it informed this agreement which will simplify both the contracting and the implementation process.

WFP, 2017. http://www.wfp.org/stories/WFP-mobile-money-southern-Africa

Feasibility of Mobile Money for Humanitarian Cash Transfer Programmes

Mobile money will not always be a suitable option for humanitarian cash transfer programmes. A number of enabling factors are required to make mobile money feasible in a market, specifically in one where the intended user is displaced and/or requires humanitarian assistance. The figure below outlines potential scenarios against which feasibility for mobile money based humanitarian cash programmes could be compared.

**Mobile Money Feasibility Scenarios for Humanitarian Cash Transfers**

Scenario 1. Active mobile money and robust ecosystem with overlapping geography, and existing agreements between stakeholders for humanitarian payments: Best potential for use of mobile money for humanitarian payments.

Scenario 2. Active mobile money, poor geographic overlap, no existing engagement between the stakeholders regarding a humanitarian use case: MNOs can evaluate tenders / engage with humanitarian agencies and determine if providing the services is possible and if is of interest to its business strategy and impact (i.e. adapting infrastructure, liquidity management, sensitization and marketing, size of displaced population, size of contract, etc.).

Scenario 3. Intended mobile money in the market (not formally active): MNOs can evaluate tenders / engage with humanitarian agencies to see if providing the services is aligned with their overall vision and business strategy. A 'Test & Learn' approach can be considered for deploying humanitarian payments; not suited for emergency contexts.

Scenario 4. No intended mobile money in the market: Should humanitarian organisations express interest, MNOs may consider a 'Test & Learn' approach for deploying humanitarian payments though this will be complex and risky; not suited for emergency contexts.

Figure 9
Factors Enabling Use of Mobile Money with Displaced Populations
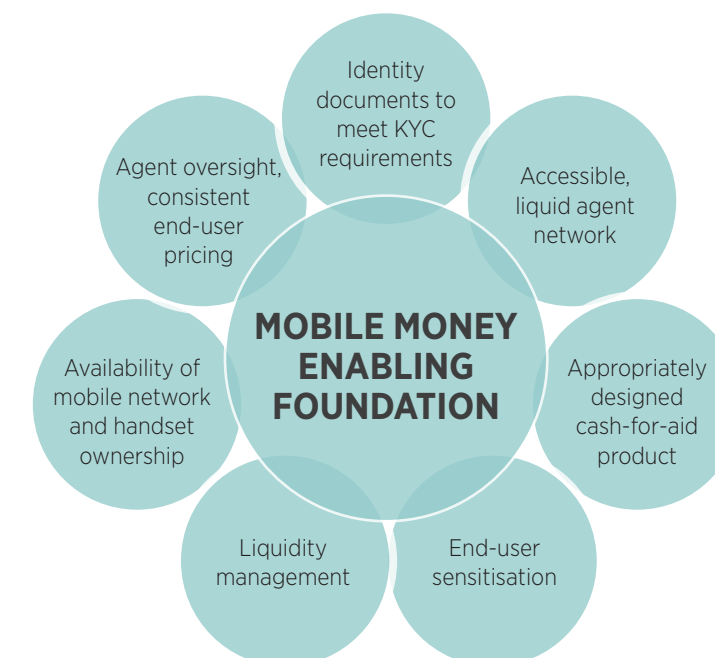
In any scenario, a number of key factors are required to enable the use of mobile money use by displaced populations (see figure 9). Three of these key factors—network coverage, KYC requirements, and agent networks—are detailed below. Critical for the success of any humanitarian cash transfer programme utilising mobile money will be the alignment of stakeholder objectives.

MNO Network Coverage – Commercially Sustainable Infrastructure

Mobile network coverage is an essential prerequisite for mobile money. Without network coverage, neither recipients nor agents can access the service.

To expand coverage, an MNO must invest in network infrastructure. This process can be very costly, and MNOs typically plan infrastructure expansion years in advance. However, lack of infrastructure in the short run need not be an absolute barrier to long term implementations of mobile money programmes. Humanitarian organisations are increasingly working with MNOs to investigate innovative ways to support mobile coverage expansion in unserved or underserved areas.

Pioneering Approaches to Expanding Mobile Infrastructure: Loss Guarantee

In Uganda, the United Nations Capital Development Fund (UNCDF) recently pioneered an approach for infrastructure expansion, termed a 'Loss Guarantee' agreement between an NGO and an MNO.

UNCDF wanted to enable the delivery of mobile money bulk payments in an area without sufficient connectivity. The local MNO was unable to invest in enhanced connectivity in the area because the site did not meet the minimum threshold requirement to be deemed commercially sustainable.

After developing an understanding of the business case for infrastructure investments with the MNO and the donor, UNCDF was able to design a structured, value-limited and time-limited loss guarantee which it then proposed to the MNO.This was based on research and analysis undertaken by UNCDF which predicted that mobile usage in the area would be higher than that predicted in the MNOs own modelling and thus the proposed site could be expected to become commercially sustainable.

The promise of a loss guarantee, by which the UNDCF would reimburse the MNO for any losses suffered through the site on a quarterly basis, enabled the MNO to invest in the new site without financial risk*. UNDCF's analysis proved to be correct and the site was profitable almost immediately after investment. This meant that the loss guarantee itself was neither formalised nor called upon by the MNO, and the planned bulk payment programme was able to proceed – without UNDCF needing to pay the MNO any compensation for losses.

Structuring a loss guarantee tied to a bulk payment could potentially help bridge the gap between a short-term need for profitability on the part of the MNO versus a longer term need for connectivity by the guarantor organisation. This innovative approach requires further research and piloting, and may not be feasible in all markets, but it provides an example of an innovative solution to infrastructure challenges.

*Detailed terms and conditions were agreed as part of the process

In northern Uganda, Airtel is working with Mercy Corps and Danish Church Aid (DCA) on an extensive mobile money cash disbursement program for refugees. Airtel is planning to install new cellular towers to provide connectivity during 2017. **Airtel notes that a business case for the investment in new towers exists by virtue of the large number of individuals who will be receiving humanitarian cash transfers.** The new towers will be supplemented with the provisioning of new mobile money agent kiosks in key locations to allow beneficiaries to easily cash out the funds they receive. The towers and agent network will benefit both the refugee population receiving aid and also the local population living in the area.

Service Adaptations. Once network connectivity is established, there may be other service adaptations that are required to ensure that fund transfer via mobile money meets the needs of a displaced population. One example is allowing for a longer phone or account dormancy period for these customers than for the population as a whole. This can be relevant where a population has not previously had a mobile phone and is not accustomed to using it, or in cases where humanitarian transfers may be spaced out over a long period of time, i.e. if the beneficiary only uses the phone sporadically. In Jordan, for example, some MNOs propose to not disconnect SIM connectivity after six months of non-activity (as is standard for customers), and instead allow for a longer dormancy period than applies to its non-displaced customer base. Any such adaptations must conform to local regulatory requirements, and must be feasible for the MNO to implement. At the time of publishing this report, Airtel already had two moveable towers up and running in a camp.

The Hurdle of Handset Ownership: Use Case in Northern Uganda

Within the refugee population in northern Uganda, Airtel estimates that only 30 per cent of the population own a mobile device. Airtel will be providing mobile money-based cash transfers to refugees with two international donors: Danish Church Aid (DCA) and Mercy Corps. For the purposes of the cash transfer program, refugees are provided with a SIM card, paid for by the donor. Additionally, DCA opted to purchase a number of phones for agents based in locations where a significant number of beneficiaries do not own handsets. However, simply handing out mobile phones does not lead to uptake of mobile money services by the beneficiary unless it is accompanied by training on how to register and use the service. First-hand experience with the service helps to build understanding, and to increase comfort and confidence levels. This, in turn, increases the likelihood that the individual will remain a long-term mobile money user.

KYC and Identity

Just like other payment service providers, mobile money providers are required to conduct KYC checks when opening customer accounts, in line with national regulations and global AML/CFT standards. In the majority of countries, it is impossible to register a customer for the service without an acceptable form of photo identification issued by national authorities. Displaced populations may, especially at the outset of their displacement, lack the documentation required to pass KYC criteria. Very often, the KYC requirements are lower for mobile money accounts than for bank accounts, especially where regulators have adopted tiered KYC practices. Of the top ten refugee hosting countries, all have mandatory SIM registration requirements.

In practise, the process through which refugees are registered and issued identity documents, and the ability of refugees to use these documents to gain access to public and private-sector services, is extremely contextual and can vary significantly by country and region. Although it is ultimately the responsibility of the State to register refugees and issue identity papers, UNHCR has a mandate to provide support and assistance where necessary in order to ensure these functions are carried out according to international standards.

In addition to the host government and UNHCR, many other humanitarian agencies and NGOs establish their

own functional databases for refugees, mainly to verify and authenticate the beneficiaries of their humanitarian assistance programmes. Increasingly, these organisations are working together to ensure that asylum seekers and refugees are provided with basic services and food assistance, which is often facilitated by sharing refugee information or by harmonising beneficiary databases.

Identity is verified in various ways by humanitarian agencies or host governments. Beneficiary registration and ID management at present is very fragmented across organisations and there are growing calls for minimum attributes collected in a standardised way across agencies. There are examples in Jordan and Rwanda where central banks revised mobile money KYC regulations to allow a UN-issued identification as acceptable KYC for use in humanitarian payments.

The ability of mobile operators in Iraq to provide services, including mobile money, to refugees is enhanced by a more flexible, risk-based approach to KYC. Recognising that the vast majority of refugees are unable to present a valid passport, the Central Bank of Iraq has granted an exception that allows refugees to open a mobile money account through a tiered KYC system. If a refugee has been fully registered on UNHCR's biometric database and has possession of a UNHCR registration certificate, they are able to use this document to open a mobile money account, albeit one with transfer limits.

New technology is also playing a role; around the world there are use cases of employing biometric technology to verify identity. Afghanistan and Jordan are good examples.

Agent Networks – the Supply Chain of Mobile Money

A well-designed mobile money deployment can support the spread of a mobile money payments ecosystem into previously under-served or unserved areas.

Mobile money agents tend to be a mix of small shops, bank branches and bill-payment counters, among others. Agents earn commission from the mobile money provider for registering customers and conducting transactions (mainly cash-in and cash-out of funds – CICO). Mobile money providers, the majority of which are MNOs, invest heavily in building out and maintaining their agent networks. **Agent commissions consumed an average of 54 per cent of mobile money revenues for the top ten mobile money providers in 2015.**[31] This highlights that these networks are expensive for MNOs to run.

Agents are crucial in educating customers on the uses of mobile money. In Haiti, for example, half of all users interviewed in December 2016 learned about the existence of Digicel's MonCash and learned how to use the service from a mobile money agent.

Agent Networks

- *Agent networks are the most prevalent touch-point for customers*
- *Many displaced populations judge their experience with mobile money based on their interaction with agents – be it through training on how to use the service, or whether or not those agents charge extra fees for service provision*
- *Planning for a robust and liquid agent network to support bulk payments is time consuming, expensive and vital for any humanitarian bulk payment program*
- *MNOs and large humanitarian and NGO bulk payers have identified a number of innovative ways to support agent liquidity, including via an agent ecosystem 'booster team' designed to recruit agents, offer liquidity management and monitor agent quality*

Liquidity is crucial

Maintaining agent liquidity within the agent network is a key challenge for mobile money providers worldwide, especially in rural areas. Agents generally maintain enough liquidity to serve the average flow of business within their communities. If a large population is to be paid at once, for example a large humanitarian payment - especially if the amounts paid are above the average transaction size – it can create a surge in demand for physical cash that threatens to overwhelm agents. In the case of a humanitarian cash disbursement, it is possible that the mobile money provider will need to put in place extra measures to ensure agent liquidity coincides with the surge in overall payment value. Understanding the existing liquidity management process, much like supply chain management for goods, is an area that humanitarian organisations may wish to focus on as part of their preparedness efforts.

Methods to ensure liquidity

(1) Utilising the existing master agent model. Many mobile money providers use so-called **master agents**: these are individuals or businesses that take on the task of recruiting mobile money agents within a specific area and also assume the burden of ensuring those agents have adequate liquidity by delivering either physical cash or e-money float. This alleviates the need for the agent to travel to the bank for this purpose. Master agents work only to serve agents, they do not serve end users directly. In exchange for providing these services, they typically take a percentage of the earnings of the agent who works for them.

Selorm Adadevoh, the CEO of Digicel Haiti notes that partnerships with humanitarian aid agencies to deploy mobile money has helped to accelerate their expansion into remote communities; some of these communities would not otherwise have been immediate priorities for Digicel because of the expense and difficulty of serving them. 'You must find ways to make this work, but they present a real challenge,' he said.

(2) Deploying more agents. Master agents manage different types of mobile money agents that serve customers directly. **Fixed agents** operate in a set location, while **roving agents** move around to serve customers in various locations. In order to meet surges in demand for cash-out, for example following a humanitarian cash disbursement, mobile money providers may decide to deploy new or existing agents into areas where the displaced are located. Deploying more agents increases costs; this increased cost may be borne by the organisation whose fund disbursement is causing the surge. Roving agents are sometimes deployed as a temporary stop-gap measure until permanent agents are recruited. In northern Uganda, the local Airtel Master Agent is deploying roving agents to meet demands for humanitarian aid disbursement while recruiting permanent local agents. This approach is also being used in Haiti to serve beneficiaries.

(3) Staggering payments. In cases where funds must be, or are likely to be, withdrawn immediately by the recipient, large bulk payer organisations can lessen the strain on the agent network in part by staggering payments so that they are not all made on the same day. This allows for a smoothing of demand and helps avoid the possibility that agents run out of cash or that special cash-out agents have to be deployed at extra cost. The FATA Disaster Management Authority (FDMA) in Pakistan experienced such challenges and as a result modified their pay-out time so that it stretches over seven to ten days. Staggering payments only has a positive impact if it is done to even out the spread within a specific area. Paying different regions on different days does not achieve the intended effect.

"Being a mobile money agent is very good but there are some challenges"
- Mobile money agent, Nyabiheke Refugee Camp, Rwanda

One agent reported he was doing very well with his mobile money business inside the camp, but that he has experienced liquidity challenges. If these liquidity challenges were addressed, he believes he would do even better, and be able to better serve other camp residents.

Ensuring Agent Liquidity

1. Mapping agents to beneficiaries has proven challenging, particularly given the transitory nature of many of the beneficiaries. Zain and UNHCR must have a good understanding of the locations of their agents and beneficiaries respectively in order to ensure cash-out demands are met. Zain agents are mapped to beneficiary locations and, where needed, new cash-out points were deployed.
2. Agent liquidity has required close attention, with Zain and UNHCR putting in place extra liquidity management support via super agents. If the project is to scale up further, both parties are aware that careful attention will need to be paid to liquidity management to ensure that beneficiaries are able to access their cash aid.
3. Some aid recipients have not been cashing out the funds received on the Zain mobile money account. This may be because beneficiaries are unsure how to cash-out and need more support to do so, or because beneficiaries see the value of storing their funds digitally. Investigation is needed to better understand this usage pattern.

Alignment of Business Objectives and the Long-Term Perspective

In addition to assessing the programmatic feasibility of aid disbursements, humanitarian organisations and their payment partners must be aligned on their business objectives.

The majority of bulk disbursements tend to be cashed out by the beneficiary very soon after receipt, and if a mobile money account is involved, this leaves little or no funds in the account.[32] This pattern of cashing out as soon as funds are received typifies the behaviour of many displaced populations. In some cases, the rush to cash out is driven by humanitarian organisation requirements that funds are to be withdrawn for immediate use, especially in cases where cash payments are intended to meet immediate needs, and donors have the impression that a population that is saving money in a wallet does not qualify as requiring this assistance.

This is characteristic of the competing aims between those humanitarian organisations that believe the best response is the one that provides impact quickly, not necessarily the one that will lead to an actively-used account, versus those who advocate a longer-term financial inclusion perspective. Typically, mobile money providers can take a long-term view and want to build a relationship with this customer base. Voice, data and mobile money account services all offer an ideal way to build this long-term relationship, but if the beneficiary is required to cash out quickly, that relationship may not be established.

A scenario symptomatic of this tension exists in Uganda, where beneficiaries receiving humanitarian aid via mobile money transfers through Aitrel Money are required to withdraw the full value of their transfer within two weeks of receipt.[33] This requirement to cash out and not carry a balance, coupled with low mobile device ownership rates, makes it unclear whether beneficiaries of this programme will become a good mobile money customer base for Airtel. In Jordan, a non-mobile money based WFP initiative has recently started allowing for carry forward of balances into the next month; though inactivity on the account for two months causes a refund of the balance to WFP and the account is deactivated.

As the duration of the average displacement lengthens, and the need to build resilience grows, these views are converging.[35] Humanitarian actors are increasingly looking to leverage their funds along with development funds to support resilience work, and are using electronic cash transfer modalities like mobile money to support this, as well as better aligning with the interests of the mobile money provider.[34]

Any investments that support in building out a robust mobile money ecosystem will serve not just for the displaced population but also for underserved local populations. The key is to not lose sight of the long term purpose even when addressing emergency situations. Of course, the overall enabling mobile money environment - including the regulatory context and the service provider's appetite for catering to this population over the long haul - is an indispensable prerequisite.

Airtel Uganda is now in the process of providing mobile money-based cash aid services for WFP, UNHCR and Danish Church Aid (DCA) in northern Uganda. These services were negotiated in the fourth quarter of 2016, with DCA payments starting in 2016 and with WFP and UNHCR payments expected to begin in 2017. In total, payments will be made to over half a million individuals.

The self-sufficiency of long-term displaced populations can be bolstered by access to financial services. Certain financial services, including lending, require a previous financial history. As of December 2015, mobile money providers across sixteen markets had partnered with credit institutions to offer credit services to customers based on previous mobile money account transaction history. Many of these loan recipients would not otherwise have access to credit services. This is an aspirational example of services which could be increasingly utilised by displaced individuals via a mobile money account in the future.

Implementation: Humanitarian Mobile Money Transfers for the Displaced

Figure 10
Segmented Need by Displacement Phase

	Phase I: Arrival	Phase II: Initial Displacement	Phase III: Stable and Protracted Displacement	Phase IV: Protracted Displacement /Permanence
Displacement Phase*	Focus on immediate provision of basic needs: shelter, food, medical services, and communications technology to reconnect with family.	Focus on access to housing, education, learning local language, finding work, or potentially starting a business.	Focus on building a life and making a living.	Focus on living a life resembling that of the host community, achieving the best economic outcome for self and family.
Key Determinants for Duration of Stay*	Degree of trauma experienced during flight. Degree of damage/danger/long term nature of the problem in the place they fled.	Receptivity of host community, economic opportunities, human and social capital. An end goal is often repatriation or resettlement.	Success in building a living/livelihood. An end goal is either repatriation or resettlement, or economic integration into the host community.	Success in building a livelihood. End goal is either full integration or repatriation or resettlement.
Potential need for financial services	Receive cash transfers for provision of basic needs and subsistence and urgent care. In some cases, ability to receive remittances.	Receive cash transfers for provision of basic needs and subsistence and urgent care. Ability to receive remittance.s	In addition to needs in previous phases: Savings, remittances (receipt and/or sending), micro-credit, purchasing items needed for living such as furniture, appliances, school fees, business-related equipment, clothing, health insurance. Note: Requirements for accessing these services via mobile money need to be determined and availed.	In addition to needs identified in previous phases: Credit (including potentially slightly larger loans for real estate or business start-ups/purchases), If integration is the goal, financial services resembling those used by the host community (retirement savings, pensions etc.). Note: Mobile money can help establish a credit history that can then facilitate offering credit products.
Pre-requisites for e-payment services	Transfers can meet all needs if pre-requisites are met: Mobile network connectivity Either existing phone ownership or fast means to provision phones or SIMs Identity documents Functional agent/merchant network			
Potential Role of e-Payments	Needs at this phase may be met via in-kind aid, while use of cash can be considered where feasible.		e-Payment could give access to suite of digital financial services (savings, lending, bill payment).	Access to suite of digital financial services (savings, lending, bill payment, government payment). Enhanced services such as such as interest bearing savings accounts, additional loan facilities may be beneficial.

✓ Cash payments accelerate positive economic impact and integration with surrounding community.

✓ Pre-paid, closed loop cards and Mobile Money offerings that must be cashed out in full allow for more efficiency and transparency than physical cash transfers processes.

✓ Mobile money accounts enabled with broader financial services provide a comprehensive offering, including building a credit history; very useful when catering to long-term displaced populations.

At different phases within a cycle of displacement, affected populations have differing needs. Four unique phases have been identified by UNHCR, which have been adapted and built upon to reflect the potential role of mobile money in meeting the needs of each phase (see Figure 10).[35]

Returnees:
IDPs or refugees who return to their place of origin or habitual residence may exhibit attributes similar to each phase between I – IV, and have need for the financial services associated with each phase, depending on the context of their return.

The following case studies, formulated through primary research in Haiti, Rwanda and Pakistan, represent a cross-section of humanitarian digital payment scenarios in countries that display varying levels of readiness for them. These case studies begin to address some of the issues faced by recipients across the different stages of displacement.

Haiti	A market that has tried both voucher-based and cash-based mobile money aid transfers

Context

Displaced populations in Haiti are predominantly a result of natural disaster. In January 2010, a 7.0 magnitude earthquake impacted an estimated 3.5 million people (roughly one third of the population) of which 1.5 million were displaced. Six years later, nearly 62,600 people are still living in 36 displacement camps in and around the capital city, Port-au-Prince.[36] These people remain vulnerable to natural disasters. In September 2016, Hurricane Matthew affected over two million Haitians.[37]

Less than 20 per cent of Haitians over the age of 15[38] have a formal bank account, while seven in ten now have mobile phones.

The birth and growth of mobile money

In June 2010, USAID and the Bill & Melinda Gates Foundation launched the Haiti Mobile Money Initiative (HMMI), a fund designed to incentivise mobile financial services deployments to support economic recovery and development. The intention of HMMI was three-fold: To speed up the development of mobile money so that humanitarian organisations could deliver cash aid; to help Haitians send, receive and store money securely, and to catalyse a mobile money ecosystem overall.[39] In late 2010, two mobile money services were launched in Haiti: First Tcho Tcho Mobile, a Digicel and Scotiabank product, and next T-Cash, a Voila and Unibank product. Mobile money usage among humanitarian agencies developed prominently in 2011, with aid for vulnerable communities affected by the 2010 earthquake.

In 2012, Digicel acquired its competitor, Voila, and consolidated both mobile money offerings into the Tcho Tcho product line which has since been rebranded as MonCash. Digicel has invested in building out its agent network as well as adding merchant payment functionality. MonCash does not offer savings, lending or other financial services, but these are planned via a partnership with a bank in 2017.

In 2015, Digicel undertook a full review of its mobile money proposition and identified the need to simplify the offering in order to allow for a much more focused initiative. Therefore, the usage of mobile money beyond simple P2P transfers remains limited. This, along with improvements in both agent availability and liquidity management, has allowed Digicel to grow its user base from 40,000 to 650,000 over the last 24 months. . MonCash users have also embraced the use of mobile money to buy airtime, with majority significant amount of airtime purchases now conducted via MonCash. For Digicel, this has meant a reduction in the amount spent on agent commissions for airtime sales. As customers get used to purchasing airtime via MonCash, they become accustomed to the service and are more likely to utilise other mobile money services. Digicel now feels that enough scale has been achieved to launch new products, and is planning to launch international remittances and micro-loan products in 2018.

Haiti

- Large, vulnerable population impacted by natural disasters
- Population not familiar with mobile money; usage requires heavy user training
- Mobile cash-out voucher and mobile merchant voucher programmes exist, both are distributed by the MNO Digicel
- The regulator allowed for the creation of a limited 'mini-wallet', with reduced KYC requirements
- For mobile money agents, liquidity and profitability are core challenges. The road to profitability requires support to agents including providing means to secure the liquidity needed for cash-outs

Humanitarian payment programmes:

Mercy Corps cash grant programme

In 2011, Mercy Corps implemented a one-time distribution of cash grants of US$225 to 100 emergency response beneficiaries as part of a pilot. These individuals received a grant via T-Cash, the Voila network's* mobile money product. Through this programme Mercy Corps and Voila made the entire functionality of the service available: Cash-in cash-out, peer-to-peer transfers, and merchant purchases, in contrast to other programmes, which only enabled cash-out or voucher purchases.[40] 75 per cent of recipients felt the mobile money account was improving their finances and 67 per cent wanted to continue using it. Recipients also transacted to purchase goods almost twice as often as they withdrew funds suggesting a comfort with making digital payments.[41]

Despite the success of this very small pilot, Mercy Corps is not using mobile money in current programmes for a variety of reasons, including connectivity issues, the time it takes to register beneficiaries, liquidity challenges with the agent network, and low phone ownership rates among beneficiaries.

Kore Lavi Mobile Merchant Vouchers

Today, one of the most active bulk payment (one-to-many) programmes in Haiti is Kore Lavi, a Government of Haiti social safety net programme supported by CARE (implementation lead), USAID, WFP, Action Contre La Faim (ACF) and World Vision. The programme, launched in 2013, has received a four-year funding commitment from donors.[42] Digicel provides the platform through which mobile merchant vouchers (voucher for use at designated merchants only) are issued.

Kore Lavi's goal is to prevent malnutrition by improving access to food for vulnerable households, pregnant women, and households with children under two years of age. CARE identifies beneficiaries and provides a list of these beneficiaries to Digicel; Digicel is then responsible under the agreement for registering beneficiaries, providing them with Kore Lavi ID cards (which is both the ID and the voucher card) and creating a voucher account for them on the system. Digicel also assists CARE in training beneficiaries on how to use the service.

The programme provides a mobile merchant voucher for purchasing dry staples such as beans, flour, rice and maize. The voucher is worth 900 HTG (US$13.40), and the value must be used within a month of it being received.

CARE selects merchants, who are then on-boarded and trained by Digicel. The voucher limits purchases to locally-grown products in order to deliver a secondary benefit: support of local agriculture. The programme is designed to build the capacity of the Haitian government with the hope that it will be transferred to them and scaled nationwide.

Beneficiaries redeem the voucher at selected merchant locations. They present their Kore Lavi voucher (which also acts as their ID card), and the merchant enters their identification number using a Digicel USSD menu on the merchant's own mobile phone. Transactions can only be done on select market days, and in the presence of Kore Lavi staff.

Figure 11
Kore Lavi Merchant USSD Menu

Byenvini nam "Kore Lavi"

1. Delivee Pep Koupon
2. Verifye Balans ou

CANCEL   SEND
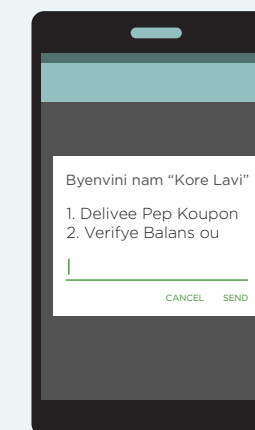
Digicel, as the service provider, charges 2.5 per cent of the transacted value, and the creator of the electronic voucher platform, which manages the programme, charges an additional US$1.25 per beneficiary per month. This cost is borne by the donors, not by the beneficiaries.

This programme is commercially sustainable for Digicel, yet despite its financial returns, it does not provide a means through which to increase Digicel's mobile money subscriber base given that the programme does not require beneficiaries to open mobile money accounts. Because the beneficiaries are not using mobile money accounts, they do not have to use mobile money agents and so this programme does not support broadening or deepening of the agent network as a mobile money account based programme might do.

World Food Programme Mobile Money Disbursement

WFP also runs mobile money-based cash transfer programmes in Haiti, in partnership with Digicel. These programmes are not as restrictive as the Kore Lavi mobile merchant voucher and recipients may cash out funds. Haiti's consumer protection laws do not allow funds to be reclaimed once they have been transferred into an individual's account. Consequently, mobile money account beneficiaries have freedom to use the balance as and when they wish, including choosing to save funds in the mobile money account for future use.

The strength of the agent network is key in supporting the feasibility of the WFP programmes. Where MonCash agents are not available or do not have sufficient liquidity, Digicel has put in place a stop-gap measure to facilitate the withdrawal of cash. Digicel contracts master agents, who in turn manage and provide liquidity to a number of temporarily and strategically relocated fixed agents.

A major constraint on the WFP/Digicel cash transfer programme was overcome in July 2011, when the Central Bank altered KYC regulations. The change allowed Digicel to launch the 'mini wallet' – a mobile money account with reduced KYC requirements, enabling users without ID documents to still make use of the service, albeit with restrictions on the amount received. This was possible due to limits being placed on the value and volume the account holder can transact (see Figure 12 below).

Figure 12

	Mini Wallet Limits	Full Wallet Limits
KYC Requirements	Only Name + DOB required	Name + DOB + ID with Photo required
Wallet Size	HTG 7,500	HTG 75,000
Daily Transaction Value Limit	HTG 15,000	HTG 150,000
Daily Transaction Volume Limit	10	10
Monthly Transaction Value Limit	HTG 93,750	HTG 750,000
Monthly Transaction Volume Limit	300	300

Prospective beneficiaries without ID, who were previously unable to register for any type of mobile wallet, could then receive funds from WFP. Beneficiaries are notified via SMS of the specific location and time they can access roving agents to cash out. This roving agent solution is costly for Digicel which must fund travel and other expenses for the roving agents deployed to facilitate cash-out. In the long term, Digicel seeks

to strengthen its fixed agent network to provide these cash-out services. However, at least in the short term, this would require Digicel to lend funds to its agents so that they could make humanitarian pay-outs. Digicel lacks the data on agents to assess these working capital needs and the associated risks.

Outcome and Learnings

Pros and cons of the various fund disbursement models

Currently, the WFP mobile money programmes are more operationally challenging and costly to run for Digicel than the voucher-based Kore Lavi programme. However, the WFP programme generates other benefits. Most significantly, Digicel's mobile money subscriber base is enlarged by the WFP programme, as beneficiaries are required to open a mobile money account to access their funds.

Roving Agent, Digicel Haiti

Kore Lavi voucher recipients do not register for an individual account and so this programme does not benefit the MNO in the same way.

Digicel has had to invest heavily in customer awareness and education programmes for the use of mobile money for the wider population in Haiti. These efforts were necessary as mobile money, despite having been present in the market for over five years, had not yet been widely adopted. Since August 2015, Digicel has held over 3,000 education clinics to teach subscribers (both NGO-beneficiaries and non-beneficiaries) about MonCash, each with an average attendance of 60 people. From August 2015 through January 2017 – during the awareness and training campaign - Digicel's active mobile money customer base is reported to have expanded 1,500 per cent, from 40,000 to 650,000. The mobile money transaction value and volume both increased over 100 per cent during this time.

Haitian beneficiaries interviewed in December 2016 reported difficulty using USSD menus, and generally indicated that they had a low level of understanding of how to use mobile money services, with the vast majority reporting that they learnt how to use mobile money from agents. Efforts are still required to increase end-user sensitisation to prevent this being a restricting factor to successful humanitarian cash-based programmes in Haiti.

'The path to mobile money profitability is tied to how quickly you can accelerate its adoption. If you can get a repeat usage cycle going you have a much better chance. You see a significant acceleration and a network effect when you get to 10% of your customer base using mobile money. Your cost of acquiring extra customers begins to go down. You go from a push business to a pull business. The indirect benefits from MFS are substantial. You experience airtime commission savings, and you reduce churn because people have money on their phones. If you value the intangibles you get to profitability more quickly.'

-Selorm Adadevoh, CEO Digicel Haiti

Key learnings:

- *Beneficiaries of the pilot programmes have indicated that they felt mobile money accounts were improving their finances, adopting new mobile money services to purchase goods, for example.*

- *Regulatory reforms to enable a low-value account with reduced KYC can increase access to humanitarian services.*

- *Several challenges impeded the growth of mobile money in Haiti. These include low levels of customer education as well as agent liquidity issues.*

- *Solutions like roving agents and training campaigns have not proven to be financially sustainable to date, preventing the widespread humanitarian use of mobile money based cash programming in the country.*

- *Although the WFP mobile money programmes (transfer of funds into mobile money account) are more operationally challenging and costly to run for Digicel than the voucher-based Kore Lavi programme, the former generate other significant benefits, such as enlarging Digicel's mobile money subscriber base.*

- *Haiti's consumer protection laws do not allow funds to be reclaimed once they have been transferred into an individual's account. Consequently, mobile money account beneficiaries have freedom to use the balance as and when they wish, including choosing to save funds in the mobile money account for future use.*

Rwanda A market with healthy mobile money usage among refugee populations

Context

Rwanda is host to an estimated 150,000 refugees from neighbouring countries including Burundi and the Democratic Republic of Congo (DRC). In addition, over 600,000 Rwandans who fled to the DRC during the 1994 genocide have since returned. Since 2013, UNHCR has supported the socio-economic reintegration of over 14,000 returnees.[43]

According to GSMA estimates, 52 per cent of Rwandan adults own a SIM card. Mobile network operators—MTN, Airtel and Tigo—provide mobile money services.[44] GSMA has identified Rwanda as one of 19 countries where the number of mobile money accounts exceed the number of bank accounts.[45]

Many displaced people, however, have not yet gained access to mobile money, facing challenges including low levels of literacy and little or no previous exposure to mobile phones.

Mobile money services are available both inside and outside of refugee camps where phone access and usage is common place. P2P transfers, bill payment services and a suite of other digital financial services, including interest-bearing savings and lending products (offered in partnership with banks), are available.

Rwanda

- Large population of both refugees from other countries and Rwandan returnees who previously fled to neighbouring countries
- Aid is distributed to this population via both pre-paid cards and mobile money
- Rwanda's use of cash transfers for refugees has been used as a model for other East African countries; it has been shown to economically benefit local communities
- Although pre-paid cards are used for aid disbursements to refugees, refugees appear to favour mobile money for personal use
- Convenience is a predominant driver of network choice; most choose a network that their friends and family have adopted
- Challenges include commission structure and liquidity management

Refugees and returnees live within both camp environments and in urban areas, including a large population in Kigali. They are relatively well integrated with the local population in both settings. Humanitarian organisations supporting these populations have been increasingly using cash transfers for aid services in order to increase system reliability, improve reporting and lower transaction costs. To date, digital cash transfer programmes have been rolled out in Nyabiheke, Gihembe and Kigeme camps.

Humanitarian payment programmes:

UNHCR programme for returnees using Airtel Money

Prior to November 2016, Rwandan returnees were supplied with three months' worth of food and given household supplies; today, cash transfers are given via mobile money. Through a recent partnership between UNHCR and Airtel, signed in November 2016, Rwanda returnees receive US$250 per adult and US$150 per child as part of the financial resettlement package to ensure that all refugees are repatriated and reintegrated into the community.[46] Once a group of returnees have been registered at a transit centre set up for the purpose of aiding returnees, Airtel is notified and agents are sent to the centre. The returnees are given a mobile phone if they do not have one, and the agents train them on the use of mobile money. The transfer of funds is made and the agents help the new beneficiaries to perform the initial withdrawal of cash.

Whilst this programme is in its infancy, typically, returnees do not seem to withdraw the full amount while at the transit centre. Instead, they make small withdrawals in order to test the system and then return to their district of origin. Subsequent usage patterns of the beneficiaries have not yet been documented. Despite the training efforts undertaken at the centre, the returnee beneficiaries have reported issues with their new phones. One returnee reported she had 'played with' her phone and accidentally locked it, preventing her from accessing it, as she did not know her PIN. Another, who was over the age of 80, noted that she was unable to use the phone outside of the training centre and, instead, had her son transact on her behalf. These anecdotal findings highlight the importance of sensitisation, as well as the fact that mobile money may not always be the most user-friendly channel for the end-user if there is not sufficient time and investment in digital and financial literacy training.

WFP pre-paid card programme

WFP established a pre-paid card disbursement programme in August 2016 in partnership with Equity Bank Currently, Equity Bank agents are required to provide not only cash-out services to beneficiaries, but also to have the ability to supply food. Beneficiaries don't have to pay transaction fees for purchases made at approved agents, but use of the card at merchant locations that are not a part of the WFP program incurs a fee that the beneficiary must pay.
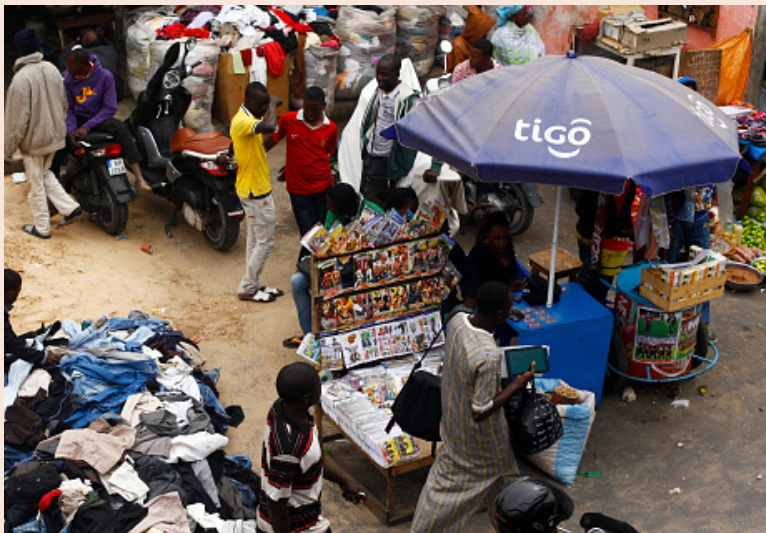
Funds distributed via these cards can be withdrawn at Equity agent locations. Whilst this pre-paid card is not a form of mobile money, in cases where the bank is in partnership with the mobile money provider, it is possible for recipients to transfer funds to or from their Equity account to a mobile money account and vice versa. This is reportedly common.

General mobile money usage in camps

In camps visited in December 2016, mobile money appeared to be widely used, despite the fact that the cash transfers were disbursed via the pre-paid Equity cards. Refugees interviewed were all regular users of mobile money with some even working as mobile money agents themselves. In this capacity, they serve both refugees and the local community depending on where they run their agency business (inside or

A long-serving Tigo agent at the refugee camp says the mobile money commission has helped him expand his small business. He also notes that he enjoys serving his fellow refugee community.

outside the camps). Camps are typically situated in remote rural locations, thus the camp generally represents the centre of economic activity in the area.

During interviews with refugees in both Gihembe and Kigeme camps, located in the north and the south of the country respectively, it was noted that mobile money might be preferred for cash-based intervention disbursement due to the additional functionality. One refugee in particular noted a sentiment that was widely shared, namely that "the cash disbursement would be better if moved to mobile money as we would easily get notifications when the funds have arrived. With the current card based system, we have to check ourselves if money has arrived".

Refugees interviewed reported that they use mobile money for both international remittances and P2P transfers – either receiving money from relatives outside the camp or sending money out. This need to transact with friends and family also drove their choice of service provider, with most choosing what that their friends and family had adopted. This usage pattern extends not only to camp residents but to employees of aid organisations who work in the camps as well. With many humanitarian organisations turning to mobile money for internal use as well as for their external programmes, humanitarian staff may often also be prospective end-users of mobile money, a factor worth considering by MNOs when addressing service feasibility.

Outcome and Learnings

MNOs in Rwanda have recognised the opportunity offered by disbursing humanitarian aid payments to the large beneficiary populations, despite challenges with low phone ownership, agent liquidity and literacy. Disbursing aid funds has the potential to bring benefits for the MNO in terms of signing up new customers, engaging new agents, and expanding business into previously unserved areas.

Key learnings:

- *Humanitarian organisations can benefit from mobile money for internal use, as well as leveraging it as a channel to disburse funds to beneficiaries. As such the staff of humanitarian organisations can also form part of a potential customer base - a factor worth considering by MNOs when assessing service feasibility.*

- *Providing handsets is not within the business models of most mobile network operators. This is an important consideration for humanitarian organisations to ensure they do not expect MNO to bear the handset cost when equipping displaced populations with a mobile phone, in preparation for opening a mobile money account for aid purposes.*

- *In addition to the benefits borne from using mobile money on a regular basis, refugees can also benefit by generating income through commissions as mobile money agents.*

- *The value being transferred by humanitarian organisations can make engagement in humanitarian programmes more commercially viable for MNOs.*

| Pakistan | A market that uses mobile money for all government-led cash-transfer programmes |

Context

Pakistan is home to between 1.5-1.7 million internally displaced people (IDPs) and approximately 1.3 million Afghan refugees. Both of these populations are receiving humanitarian assistance. Afghan refugees receive only in-kind aid whilst they are in Pakistan. Upon repatriation to Afghanistan, returnees receive cash assistance from UNHCR.

Only 12 to 15 per cent of Pakistanis are conventional banking users, yet, over 47 per cent of the adult population own SIM cards. In 2009, the State Bank availed a complete set of Branchless Banking Regulations, and in the same year, a leading bank started a pilot programme for agent-based banking. Later in 2009, Telenor and Tameer Micro-Finance Bank (as a consortium) launched Easypaisa, the country's first mobile money service - a real breakthrough for the mobile money industry.

The State Bank of Pakistan notes that today the majority of mobile money transactions are happening 'over-the-counter' (OTC), i.e. at an agent outlet. Whilst this is providing an important remittance service to users, in order for them to benefit from a broader range of digital financial services, mobile money account registration must increase.

There are five MNOs operating in Pakistan, four of which are actively participating in fund disbursement projects for IDPs. MNOs interviewed report that IDP populations were up to 60 per cent more active on voice and SMS services compared to the Pakistani population at large. This increased revenue is attributed by MNOs to their need to be in touch with family and friends following disasters in their home regions

Pakistan

- Large population of IDPs as well as Afghan refugees
- The government disburses mobile money-based aid to IDPs; but Afghan refugees do not receive cash transfers until they repatriate to Afghanistan
- Over-the-counter (OTC) model in which beneficiaries do not own accounts, means most see mobile money only as a cash-out service
- OTC transactions are prevalent, and are frequently accompanied by additional fees charged by the agent
- Agents do not get liquidity support from MNOs; this may in part be due to the prevalence of OTC transactions generating high enough returns to justify agents taking out loans and finding other means to manage liquidity on their own
- There is a pronounced gender gap both in mobile phone ownership and in use of mobile financial services among both IDPs and the population as a whole. Men are more than twice as likely to own a device and to have access to mobile money than women. This ratio holds both for IDPs and for the population as a whole.

Approach

Government transfers to IDPs via mobile money providers

The Pakistani government is the main provider of CBIs for Pakistani IDPs. Today, all IDP transfers have been moved to mobile money to alleviate previous challenges relating to fraud and transparency.

Among interviewees using mobile money services, the vast majority reported using it exclusively to receive their displacement IDP cash transfer. Because the current transfer model does not require beneficiaries to open a mobile money account, where they could store funds for safe keeping, beneficiaries cash out

all of their funds when they are received.[47] As a result, queues for cashing out could, according to the humanitarian organisations interviewed, number thousands of people on payment days. This led the government to stagger the disbursement period to 7-10 days, depending on the size of the population being served and several other factors.

During interviews in November 2016 across five different locations, it was found that IDPs and refugees both owned phones and had coverage in the urban locations where they currently reside. By contrast, none of the IDPs reported having had network coverage in their comparatively rural home towns within Pakistan, where they were based before being forced to leave due to disaster or security threat issues. This illustrates how the urbanisation of displacement is driving the relevance of mobile money as a mechanism for aid disbursements in some cases.

In October 2013 the Pakistan government proposed the use of biometric registration, as part of SIM registration requirements, linked to the National Database and Registration Authority (NADRA) national identity register. In mid 2014 the government in Pakistan introduced the requirement for biometric identity validation for all newly provisioned SIMs. Following a terrorist incident in December 2014 this requirement was extended to all provisioned SIM cards, requiring re-registration of most of the 135 million provisioned SIMs.

All customers are required to provide a biometric (fingerprint) along with their national ID reference and other details. The biometric and ID data is verified 'real time' at the operator retail location against the NADRA database. The verified identity is stored on the operator systems with the approval notification from NADRA. This approved identity is valid for the provision of other value added services including financial services and e-government services. An agreement between the Financial Regulator and the Telecoms Regulator meant that the KYC for a mobile wallet would be satisfied through this new SIM verification. This has had a very positive impact to the financial inclusion agenda.

Outcome and Learnings

The transition from cash to digital payment via mobile money has resulted in a number of benefits for both the government and for end users, including more timely payments, increased traceability of payments, less leakage, and a greater number of cash-out locations available to beneficiaries.

OTC limits the longer-term potential for financial inclusion

Despite a high level of satisfaction with receiving cash aid via mobile money agents, few of the beneficiaries interviewed understood exactly how the service would benefit them post-crisis. None of the IDP recipients interviewed had registered mobile money accounts, and the agents indicated that account registration is very low. Mobile accounts were, in fact, held by only 6 per cent of Pakistanis in 2014.[48] This is the legacy of OTC in Pakistan. Providers are now strongly backing account adoption.

'I receive money through SMS on my mobile phone so yes I take good care in safeguarding my mobile phone...otherwise I don't know how I will receive the monthly money and what I will show to the agent. Many of us keep it (mobile phone) more safe than our CNIC (ID card)...' - IDP in Pakistan

Commission wars have eroded the viability of the OTC model

GSMA studies have shown how the prevalence of OTC transactions has led to commission competition, in which Pakistani agents tend to conduct transactions with the provider that pays the highest commission.[49] This has undermined the commercial sustainability of OTC in Pakistan. Operators reported paying up to 60 per cent of their revenues as commissions to make the disbursement of cash-for-aid successful in difficult circumstances. In light of this, and the challenge of providing additional services to customers that do not own a mobile money account, most providers in Pakistan are working to diversify away from OTC.

Humanitarian Organisation Perspective

Humanitarian organisations including UNHCR, Red Crescent, Al-Khidmat Foundation, and Islamic Relief have field offices located on the ground in the areas where IDP camps are present. Shelter, food, medical care and other goods are supplied, but these organisations do not currently utilise cash fund disbursement because of the fear of fraud in the country, including concerns about the extra fees that agents charge beneficiaries.

Key learnings:

- *The transition from cash to digital payment via mobile money has resulted in a number of benefits for both the government and for end users, including more timely payments, increased traceability of payments, less leakage, and a greater number of cash-out locations available to beneficiaries.*

- *MNOs interviewed found that IDP populations were up to 60 per cent more active on voice and SMS services compared to the Pakistani population at large.*

- *Increasingly the urbanisation of displacement is allowing IDPs to access mobile services for the first time, where connectivity may not have been available in their previous rural communities.*

- *To reduce queues experienced on payment days, and to minimise liquidity challenges, the staggering of disbursement periods can be adopted. These should be tailored carefully depending on the size of the population being served, the number of agents available, proximity to agents and other contextual factors.*

- *Interviewees reported that the driving factor in the choice of network for mobile money was the receipt of aid, demonstrating the importance for MNOs who are attempting to expand their mobile money subscriber base to be involved in cash-for-aid disbursements for displaced populations.*

Lessons Learned

As humanitarian organisations strive to understand how best to deliver CBIs in the wake of current displacement trends (common, protracted, urban), the need for partnerships between humanitarian agencies and mobile money service providers is growing. Crucially, these two types of institution must understand each other's organisational and operational capacity and requirements.

Humanitarian cash disbursements via mobile money have the potential to improve transparency and data protection, reduce fraud, improve financial resilience, expand a provider's customer base, stimulate local economic growth, and facilitate deeper financial inclusion.

As a starting point to bolster the chances of success, stakeholders should follow these high-level guidelines:

- **Assessment of project feasibility:** Both country and humanitarian context will impact the feasibility of CBI delivery via mobile money. Network and agent coverage, agent liquidity, device ownership, gender gaps and the lead time required to establish effective partnerships must be taken into consideration by both parties. A common and realistic understanding of the challenges, opportunities and costs associated with serving displaced populations via mobile money will help determine project feasibility as well as operational and financial sustainability. Mobile money will not always be a relevant mechanism for the disbursement of aid.
- **Mobile money delivery mechanisms:** In scenarios where humanitarian cash transfers via mobile money can be successful, there are several ways of disbursing CBIs to meet the needs of the beneficiaries in different phases of displacement: (1) transfer of funds into a mobile account, (2)

cash-out only voucher, (3) merchant voucher. Each has advantages and drawbacks for the parties involved, including implementation costs, beneficiary identification requirements, long-term financial inclusion impact, self-sufficiency, commercial sustainability and beneficiary transaction monitoring.

- **Awareness of the need for reforms:** In order to operate in an enabling environment, procedural and regulatory reforms may be required from various stakeholders. Mobile operators may need to extend SIM dormancy periods to facilitate the receipt of infrequent disbursements. They may also need to deploy new fixed or roving agents to ensure sufficient liquidity. Humanitarian organisations may need to stagger payments to relieve pressure on mobile money agent networks. Regulators may need to implement special KYC rules to ensure persons without formal identification are able to benefit from mobile money services.

- **Preparedness and collaboration:** Preparedness is not just about contractual partnerships, it often requires ongoing collaboration between humanitarian organisations and MNOs to create and support the infrastructure required to serve those in need. Collaboration is, for example, often crucial to ensure infrastructure economics, end-user awareness, logistical planning and implementation, and to overcome regulatory hurdles. Efforts should be made to reduce fragmentation between humanitarian agencies to reduce the use of costly bespoke solutions rather than leveraging existing services and infrastructure. Minimum standards and cohesion are required around issues such as beneficiary registration, KYC for humanitarian use cases, platforms and investment, as well as consensus amongst donors on traceability, if long term scale and impact is to be achieved.

- **Design for differences between and within displaced populations:** Displacement has different phases, during which different types of support and service are needed. This has implications for how mobile money deployments should be structured. Initial short-term needs for basic support during arrival and initial displacement phases may be more effectively met via in-kind aid and voucher-based programmes, allowing populations who may not have official ID documentation to benefit.

Working together, humanitarian organisations and mobile money service providers have the ability to use mobile technology to lead successful digital cash-for-aid implementations. This can help to increase resilience and transparency, improve efficiency and effectiveness, and most importantly, better serve displaced populations worldwide.

Glossary

Agent: In the case of mobile money, an agent outlet is a location where one or several mobile money agents are contracted to facilitate transactions for users. The most important of these are cash-in and cash-out (i.e. loading value into the mobile money system, and then converting it back out again); in many instances, agents register new customers too. Agents usually earn commissions for performing these services. As they are the human touch point for the mobile money service, they also often provide front-line customer service such as teaching new users how to initiate transactions on their phone. Typically, agents will conduct other kinds of business in addition to mobile money. The kinds of 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. Some industry participants prefer the terms "merchant" or "retailer" to describe this person or business to avoid certain legal connotations of the term "agent" as it is used in other industries.

> **Fixed Agent:** An agent that resides in a set fixed location such as a shop or their home.
>
> **Roving Agent:** An agent that does not have a fixed location but has the ability to move from place to place to flexibly serve customers.
>
> **Master Agent:** A person or business that purchases e-money from an MNO wholesale and then resells it to agents, who in turn sell it to users. Master-agents are responsible for managing the cash and electronic-value liquidity requirements of a particular group of agents.

Anti-Money Laundering/Combating the Financing of Terrorism (AML/CFT): A set of rules, typically issued by central banks, which attempt to prevent and detect the use of financial services for money laundering or to finance terrorism. The global standard-setter for AML/CFT rules is in the Financial Action Task Force (FATF).

Asylum Seeker: An asylum seeker is an individual who is seeking international protection. In countries with individualized procedures, an asylum seeker is someone whose claim has not yet been finally decided on by the country in which he or she has submitted it. Not every asylum seeker will ultimately be recognized as a refugee, but every refugee is initially an asylum seeker.

Average Revenue Per User (ARPU): The average revenue a single customer/user generates for a mobile network operator. A term used frequently by telecom operators in describing their business.

Bulk Disbursement: A payment made by an organisation via a mobile money platform to a person's mobile money account. For example: salary payments made by an organisation to an employee's mobile money account (B2P: business-to-person), payments made by a government to a recipient's mobile money account (G2P), or payments made by development organisations to beneficiaries (D2P).

Cash-In and Cash-Out (CICO):
Cash-In: The process by which a customer credits their 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.

Cash Point: Location where users can perform cash-in and/or cash-out transactions. Types of cash points may include active cash outlets, such as bank agents, ATMs, MNO agents, and cash agents where digital financial services are offered.

Cash Transfer: Payment of currency or transferable monetary deposit by one entity to another.

> **Digital Cash Transfer:** A transfer of money or currency made from one party to a recipient through a digital channel, such as mobile money, electronic platform, electronic bank transfer, or other.

> **Conditional cash transfer (CCT)** programs are conditional upon the receivers' actions. The government or humanitarian organisation only transfers the money to persons who meet certain criteria

> **Unconditional cash transfer (UCT)** programs are without any conditions upon the receivers' actions. This differentiates them from conditional cash transfers where the government or humanitarian organisation only transfers the money to persons who meet certain criteria.

Convention Relating to the Status of Refugees: A Convention that establishes the most widely applicable framework for the protection of refugees. As of 1 July 2005, there are 145 States who are parties to the original 1951 Convention and/or the modified version adopted via the 1967 Protocol.

Data services [with regards to a mobile network operator]: A computer path/protocol used to transfer data from one device to another. When referring to data services of a mobile network operator, it refers to the mobile network channel that transfers data.

Digital Financial Services (DFS): A broad range of financial services accessed and delivered through digital channels, including payments, credit, savings, remittances, and insurance. The digital financial services concept includes mobile financial services.

Displaced Person: A person who has been forced to leave their home or place of habitual residence; may refer to an internally displaced person (IDP), asylum seeker, or refugee.

Displacement can be defined as the forcible uprooting of people from their homes by violent conflicts, environmental threats, human rights violations or other traumatic events.

e-money: Short for electronic money; stored value held in the accounts of users, agents, and the provider of the e-money service (for example, a mobile money service provider.) A central bank or regulatory authority may require that the total value of e-money existing on a service provider's accounts is mirrored in a bank account(s), such that even if the provider of the service were to fail, users could recover the full value stored in their accounts. While bank deposits may earn interest, e-money typically does not earn interest.

e-money float: The balance of e-money, physical cash, or money in a bank account that an agent can immediately access to meet customer demands to purchase (cash in) or sell (cash out) electronic money.

e-payment: A money transfer payment made through an electronic channel.

e-voucher: A voucher transferred through an electronic channel; a voucher is for a specific value or for a specific item, such as food. (see Voucher)

Government-to-Person (G2P) Payment: A payment by a Government to a person's mobile money account.

Hawala: A widespread, traditional informal value transfer system based on the performance and honour of a huge network of money brokers, primarily located in the Middle East, North Africa, the Horn of Africa As a system of transferring value/money, the money is paid to an agent who then instructs an associate in the relevant country or area to pay the final recipient.

Interoperability: The ability for customers to undertake money transfers between two accounts at different mobile money schemes, or to transfer money between accounts at mobile money schemes and accounts at banks.

Internally Displaced Persons (IDPs): Those persons forced or obliged to flee from their homes, "...in particular as a result of or in order to avoid the effects of armed conflicts, situations of generalized violence, violations of human rights or natural or human-made disasters, and who have not crossed an internationally recognized State border".

Know Your Customer (KYC): Financial institutions and regulated financial services providers are obligated by regulation to perform due diligence to identify their customers. The term is also used to refer to the regulation which governs these activities. The FATF (Financial Action Task Force) recommends a risk-based approach to due diligence for AML/CFT (anti-money laundering and counter-financing of terrorism) controls. Due to the lack of formal identity documents in some markets, solutions such as tiered KYC and adjusting acceptable KYC documentation can help mobile money providers facilitate customer adoption and increase financial inclusion, especially in rural areas.

Liquidity management: The ability of an agent to meet customers' demands to purchase (cash in) or sell (cash out) e-money. The key metric used to measure the liquidity of an agent is the sum of their e-money and cash balances (also known as their float balance). (See CICO)

Merchant: Retailer that sells good. In the cases of mobile money or e-transfers, this merchant accepts e-payments for sale of goods or services.

Merchant Payment: A payment made from a mobile money account via a mobile money platform to a retail or online merchant in exchange for goods or services

Mobile Banking: When customers access a bank account via a mobile phone; sometimes, they are able to initiate transactions.
Mobile Credit and Savings: Mobile credit and savings use the mobile phone to provide credit and/or savings services, typically to the underserved.

Mobile Financial Services (MFS): Tools to access financial services and execute financial transactions via a mobile device (a mobile phone for example.) 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 checking your account balance via a mobile service are mobile financial services.

Mobile Money: Mobile money is a service which the underserved can use to make and receive payments using a mobile phone. GSMA Mobile Money tracks mobile money services which meet the following criteria:
   -The service must offer at least one of the following services: P2P transfer, bill payment, bulk disbursement, merchant payment, and international remittance.
   -The service must rely heavily on a network of transactional points outside bank branches which make the service accessible to unbanked and underbanked people. Customers must be able to use the service without having been previously banked. Mobile banking services which offer the mobile phone as just

another channel to access a traditional banking product, and payment services linked to a current bank account or credit card such as Apple Pay and Google Wallet, are not included.
-The service must offer an interface for initiating transactions for agents and/or customers which is available on basic mobile devices.

Mobile Money Account: An e-money account that is primarily accessed using a mobile phone that is held with the e-money issuer. In some jurisdictions, e-money accounts may resemble conventional bank accounts, but are treated differently under the regulatory framework because they are used for different purposes (for example, as a surrogate for cash or a stored value that is used to facilitate transactional services).
An active mobile money account is a mobile money account that has been used to conduct at least one transaction during a certain period of time (usually 90 days or 30 days).

Mobile Money Transfer: A transaction made from a mobile account, accrues to a mobile account, and/or is initiated using a mobile phone.

Mobile Network Operator (MNO): A company that has a government-issued license to provide telecommunications services through mobile devices.

Network Effect: In economics and business, it is the effect that one user of a good or service has on the value of that product to other people. Also called "demand-side economies of scale:" the value of a product or service increases in accordance with the number of users of that product or service. So, where the more users there are, the more valuable the product / service becomes.

One-to-Many: (see Bulk Payment)

Over the Counter (OTC) Services: Some mobile money services are being offered primarily over-the-counter (OTC). In such cases, a mobile money agent performs the transactions on behalf of the customer, who does not need to have a mobile money account to use the service.

Person-to-Person (P2P) Transfer: A transfer made from one person to another person.

Persons of Concern to UNHCR: A generic term used to describe all persons whose protection and assistance needs are of interest to UNHCR. These include refugees under the 1951 Convention, persons who have been forced to leave their countries as a result of conflict or events seriously disturbing public order, asylum seekers, returnees, stateless persons, and, in some situations, internally displaced persons. UNHCR's authority to act on behalf of persons of concern other than refugees is based on General Assembly and ECOSOC resolutions.

PIN code: A personal identification number (PIN) code that is an authentication measure required for entry into a device or account. Most mobile money accounts require PIN codes for verification to prevent fraud.

Point of Sale (POS): A retail location where payments are made for goods or services.

Refugee: A person who meets the eligibility criteria under the applicable refugee definition, as provided for in international or regional refugee instruments, under UNHCR's mandate, and/or in national legislation.

Refugee Camp: A plot of land temporarily made available to host refugees fleeing from an armed conflict in temporary homes. UN Agencies, particularly UNHCR, and other humanitarian organizations provide essential services in refugee camps including food, sanitation, health, medicine and education. These camps are ideally located at least 50 km away from the nearest international border to deter camp raids and other attacks on its civilian occupants.

Registration Card: Card issued to a refugee Head of Household giving individual identification number, indicating number of persons in family and also used as a beneficiary card for ration and other distribution. The identification number is linked to a registration form, which contains fuller information on the household.

Remittance Payment: A transfer of funds from one person to another person as a gift, often from someone such as a migrant worker to family/friend in need, or to a displaced/migrant from their home family.

International Remittance: Cross border fund transfer from one person to another person.

Unbanked: Customers, usually the very poor, who do not have a bank account or a transaction account at a formal financial institution.

USSD: USSD messages are up to 182 alphanumeric characters long. Unlike SMS messages, USSD messages create a real-time connection during a USSD session. Many mobile money services use USSD as their primary mechanism for communication between customers and their mobile payments platform

Voucher: Originally a piece of paper that can be redeemed for specific goods or services or a pre-determined value. Today vouchers can be delivered electronically, as described below.

Mobile merchant voucher: A voucher transferred through the mobile money channel, for use at merchant locations, allows voucher owner to buy goods and services, but not to redeem physical cash.

Mobile cash-out voucher: A voucher to be redeemed for cash, not goods or services, transferred through the mobile money channel.

End Notes

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11 Displaced persons are entitled to a different set of international and national protections and legal rights based on the group for which they qualify. Refugees are asylum seekers who have been granted asylum and have legal status; they are afforded a number of rights as established in the 1951 United Nations Convention Relating to the Status of Refugees (Refugee Convention), such as the right to receive the same treatment as nationals of the receiving country with regard to access to elementary education, free access to the courts, equal treatment by taxing authorities, and protection provided by social security. There is no international convention on the rights of IDPs, but IDPs should be protected by authorities in their home country. However, many IDPs are displaced in territories over which state authority is absent or difficult to enforce. In such situations, UNHCR recommends that non-state actors and the international community take over responsibility for prevention of displacement and the protection of those displaced.

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