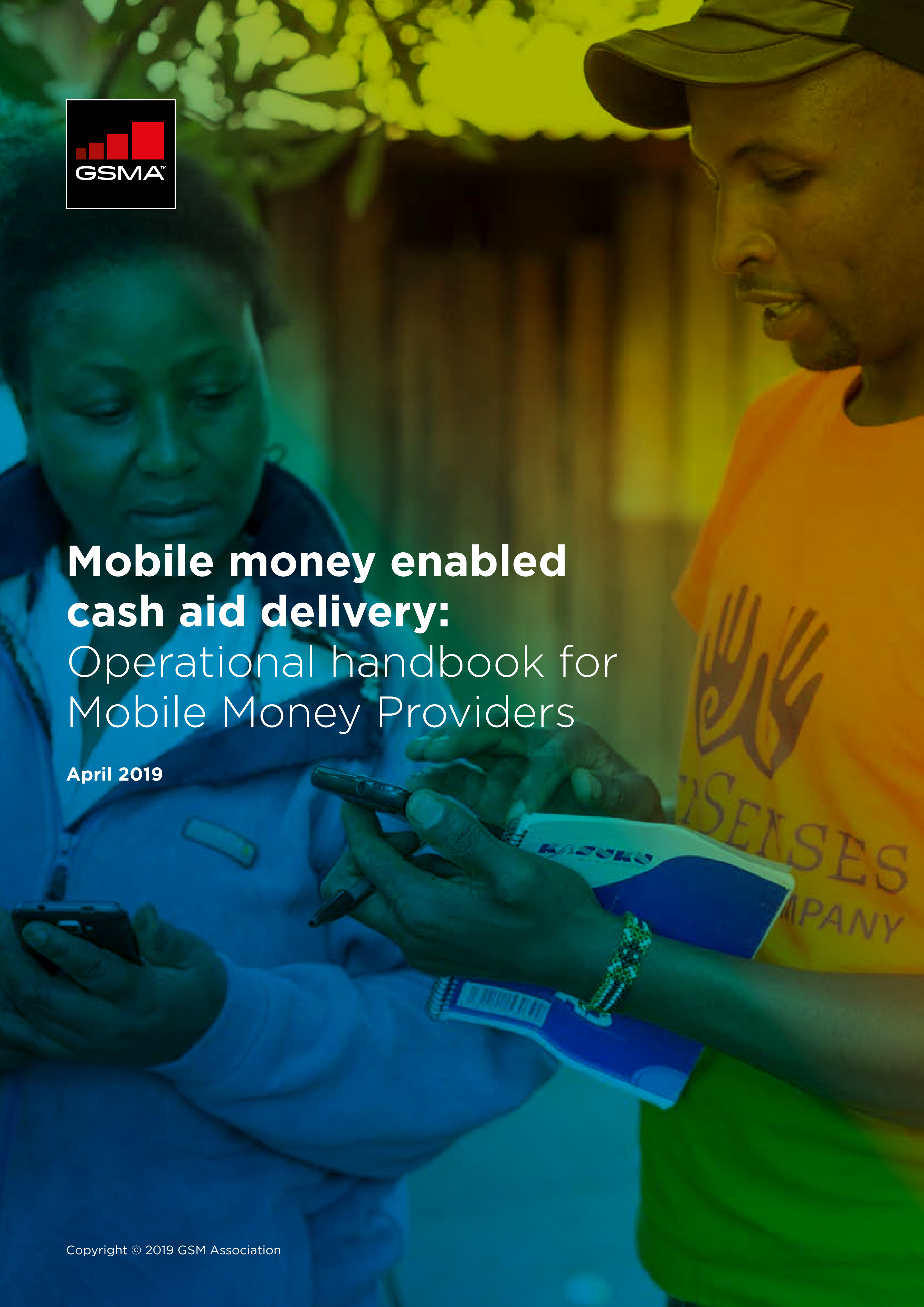


# Mobile money enabled cash aid delivery:

## Operational handbook for Mobile Money Providers

**April 2019**

The GSMA represents the interests of mobile operators worldwide, uniting more than 750 operators with over 350 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 the industry-leading MWC events held annually in Barcelona, Los Angeles and Shanghai, as well as the Mobile 360 Series of regional conferences.

For more information, please visit the GSMA corporate website at www.gsma.com

Follow the GSMA on Twitter: @GSMA

## Mobile for Humanitarian Innovation

The GSMA Mobile for Humanitarian Innovation programme works to accelerate the delivery and impact of digital humanitarian assistance. This will be achieved by building a learning and research agenda to inform the future of digital humanitarian response, catalysing partnerships and innovation for new digital humanitarian services, advocating for enabling policy environments, monitoring and evaluating performance, disseminating insights and profiling achievements. The programme is supported by the UK Department for International Development.

Learn more at www.gsma.com/m4h or contact us at m4h@gsma.com

Follow GSMA Mobile for Development on Twitter: @GSMAm4d

This document is an output of a project funded by UK aid from the Department for International Development (DFID), for the benefit of developing countries. The views expressed are not necessarily those of DFID.

**Acknowledgements**:
The GSMA would like to thank Mike McCaffrey of Ulana Insights for contributing significantly to this report; as well as participants of the workshops in Jordan and Uganda, and stakeholders in Somaliland, for their valuable inputs upon which this report is based.



# Contents



## Acronyms

| | |
|---|---|
| **CVA** | Cash and Voucher Assistance |
| **FDP** | Forcibly Displaced Persons |
| **KYC** | Know Your Customer |
| **MFS** | Mobile Financial Services |
| **MMP** | Mobile Money Provider |
| **MNO** | Mobile Network Operator |
| **M4H** | Mobile for Humanitarian Innovation |
| **NFC** | Near Field Communication |
| **NGO** | Non-Governmental Organisation |
| **PAYG** | Pay-as-you-go |
| **POS** | Point of Sale |
| **PWSN** | Person with Specific Needs |
| **RFI** | Request for Information |
| **RFP** | Request For Proposal |
| **TSP** | Technology Service Provider |
| **UNHCR** | United Nations High Commissioner for Refugees |
| **USSD** | Unstructured Supplementary Service Data |

# Executive summary

**Billions of dollars in humanitarian cash and voucher assistance (CVA) programmes are currently delivered[1] annually, and the humanitarian sector predicts this rapid growth will continue. Much of this assistance is delivered through digital channels, such as mobile money. The objective of this handbook is to help mobile money providers assess whether it is strategic for them to deliver CVA, and provide guidance on executing CVA operations successfully. This handbook highlights both the opportunities and the challenges of these engagements and outlines the key operational phases.**

**Delivering CVA can require significant commitment of resources from providers to meet both the expectations of humanitarian organisations and the unique needs of vulnerable populations.** Humanitarian organisations are mandated to serve the needs and protect the interests of their beneficiaries — typically vulnerable populations with low digital literacy skills — and therefore expect high levels of customer service. It is advantageous for mobile money providers to build a customised CVA product and distribution channel, to satisfy humanitarian organisations' need for a high quality service. This can also command higher revenues for the provider. **Developing meaningful partnerships with humanitarian organisations early on is essential for providers to deliver CVA successfully and ensure the benefits are long lasting.**

**For mobile money to be an effective delivery mechanism in humanitarian contexts, certain infrastructure, technology and policies must be in place.** Mobile coverage, handsets, an agent distribution network and financial institutions that can move money to these agents, are all required. Regulatory policies are also essential considerations, particularly when providing mobile services for refugees, including Know Your Customer (KYC) regulation and data protection requirements. It is prudent to understand that there are many different types of transfers, including restricted transfers (generally vouchers) and conditional transfers, which will affect the type of infrastructure needed and which regulations will apply.

**The business case for mobile money CVA varies.** While a single CVA programme is not likely to generate significant revenue for providers, there are other revenue streams that could generate higher profit margins and are worth exploring, such as product innovation.

1. CaLP and Accenture (2018). The State of the World's Cash Report.





**Section 1 of this handbook provides essential background on the humanitarian sector and CVA programmes.** A brief overview of the business case for CVA delivery identifies the potential revenue streams that can come from building long-term strategic partnerships with humanitarian organisations and developing innovative products for their beneficiaries, staff, and the host communities.

**Section 2 outlines the operational steps involved in delivering CVA successfully,** and features best practices and lessons from mobile network operators (MNOs) operating in humanitarian contexts.

For each phase, major stages are described and advice from providers and observations from humanitarian organisations are provided as practical guidance. The handbook concludes by recognising the difficult but not insurmountable work required to deliver CVA, and that the effort rewards first movers.

## Seven phases of mobile money CVA

# Section 1. Gauging strategic engagement

## Introduction

Humanitarian organisations are changing how they deliver aid in crises. Traditional in-kind aid, such as blankets, food and tents, is increasingly being replaced with cash and voucher assistance (CVA).[2] In 2016, approximately $2.8 billion in aid was delivered through CVA, and humanitarian experts expect this strong growth to continue.

Often the people affected by humanitarian crises are in developing countries[3] where banking infrastructure is weak and delivering small amounts of cash to thousands is challenging. In countries where mobile money systems are functioning, humanitarian organisations have used CVA to deliver aid because it allows them to reach large numbers of people cost effectively.

Delivering CVA has two main tangible benefits for mobile money providers. First, there is a strategic opportunity to become one of the first movers in a quickly growing multibillion dollar sector. Second, when CVA delivery requires an expanded mobile money system, providers can provide a gateway to digital financial services for an entirely new customer segment.

However, in many cases, mobile money systems are not yet operating in the area where CVA is planned, or humanitarian organisations want to offer specialised services that are not yet developed. **Therefore, investment is often necessary to develop customised systems and innovative new products.** While delivering CVA may not make sense for all providers, those that do invest will have significant competitive advantage in a large and growing space.

**This handbook is aimed at providers that want to understand the opportunities and challenges of humanitarian CVA distribution and are deciding whether to engage.** The objective of Section 1 is to help providers determine whether CVA distribution is a strategic opportunity, and Section 2 provides guidance on executing CVA operations successfully.

Choosing whether to use mobile money to distribute CVA is an important decision because of the amount of work involved and the potential it holds. CVA distributions are unique because they tend to be in remote areas with limited infrastructure, and humanitarian organisations require a high level of customer service and awareness raising for beneficiaries who often have low literacy levels or may not be familiar with mobile technology. **This may require providers to respond quickly with creative and sustainable solutions to serve a different type of mobile money customer,** while also keeping pace with what may be a fast-moving and unpredictable crisis.

2. CaLP and Accenture (2018). The State of the World's Cash Report.
3. UNHCR (2019). Figures at a Glance.





**A partnership approach with humanitarian organisations is recommended to help them understand the advantages and limitations of a mobile money system.** This gives the provider time to better understand the people and areas where they will be working, the scale of operations, and the opportunities for product development to meet the needs of beneficiaries and the partner organisation.

For providers with the resources and commitment to customise their mobile money system, delivering humanitarian CVA **has the potential to define a brand and make a meaningful contribution to creating a better world.**

## An overview of the humanitarian sector

### A. Players and structures

The humanitarian sector has a complex structure with a variety of international and local players. Globally, most donors are bilateral aid agencies, with the United States Agency for International Development (USAID), the UK Department for International Development (DFID), and the European Union's European Civil Protection and Humanitarian Aid Operations (ECHO) contributing approximately 74 per cent of all humanitarian aid in 2015.[4] These organisations fund implementing agencies to deliver aid in humanitarian contexts. Some of these implementing partners are United Nations agencies that are also donors, hiring international non-governmental organisations (INGOs) or local organisations to distribute aid on the ground.

The organisational structure of these entities varies by country, and can be specific to the humanitarian context as circumstances change over time. For providers, the most important details to understand are:

- which organisations are planning to distribute cash;
- the amounts they will disburse;
- the duration of the CVA programme;
- the locations of the beneficiaries; and
- the types of beneficiaries (e.g. people with specific needs (PSNs) or a larger demographic).

With these details, providers can formulate initial estimates of both the potential revenue and cost of distributing CVA and, therefore, whether it is feasible through a given mobile money system. However, because humanitarian remits and operating practices take many different forms, gathering these details can be difficult.

Increasingly, humanitarian organisations are forming cash working groups at the national level, which is the best way to learn about humanitarian cash transfers in a country.[5] These working groups range from informal voluntary coordination groups to longstanding mechanisms for operational collaboration. Generally, the humanitarian organisations distributing the majority of cash transfers will be part of this group'.[6]

4. Spencer, A. et al. (2016). Counting cash: tracking humanitarian expenditure on cash-based programming. Overseas Development Institute.
5. The easiest way to find out whether a cash working group exists is through the Cash Learning Partnership (CaLP) website, which lists cash working groups by country. Many have a contact listed, but otherwise CaLP lists a regional representative who can provide more information. Another source is the Dgroups Discussion Forum, where questions can be asked to CVA experts worldwide, or the UNHCR and World Food Programme (WFP) country websites. These UN agencies are responsible for two-thirds of humanitarian cash transfers globally, and their websites include contact information for local organisations that will likely know the major organisations distributing CVA nationally.
6. GSMA (2019). *Mobilising Cash and Voucher Assistance Programmes: The Case for Mobile Money.*

## B. Types of humanitarian crises

No two humanitarian crises are the same. Some are caused by natural disasters, some are provoked by war or disease, while others are a combination of both. Given the unique qualities of each crisis, operations must adapt, including how CVA is distributed. There are many variables that will drive decision making about cash programming, and will interact differently depending on the circumstances.

For example, while it is often challenging to find economically viable locations for base stations in rural areas, a refugee settlement established in a remote location may provide sufficient population density to support one. A rapid onset disaster in a location with no mobile money infrastructure in place might begin with a different CVA delivery mechanism, then switch to mobile money once support systems are in place. If disaster strikes again, CVA programmes may be able to start with mobile money because of the legacy systems.

Figure 1

**Decision matrix for engagement**

| Humanitarian crisis distinction | Description | Implications |
|---|---|---|
| **Rapid vs. slow onset**[7] | Refers to the amount of warning responders have to a crisis. | With slow onset, there is more preparation time for setting-up CVA systems. |
| **Internally Displaced Population vs. Refugees** | Describes if those affected crossed an international border. Mixed migration flows are also common, with refugees moving alongside people whose reasons for movement are not protection related. | Refugees may have limited rights to, and documents for, registering for financial services used for CVA. IDPs can also face issues with documentation. In mixed situations, it may be challenging to determine distinct groups and differing documentation challenges. |
| **Camp vs. integrated living** | Distinguishes between those affected living together in a designated area or interspersed with those who are not affected. | CVA delivery mechanisms such as agents, can be focused on a settlement area, or dispersed over a larger geography. |
| **Emergency vs. stable and protracted displacement situations** | Delineates the early phase of a crisis from subsequent stabilisation efforts. | At first, CVA is focused on basic needs for survival but then is directed to a greater array of needs. Durable solutions include resettlement, repatriation and integration where CVA may be required. |

Beyond the interaction of variables, some attributes of a crisis are unpredictable. Whether someone is displaced internally or has moved across a border, the time it takes for a crisis to transition to a stable or durable solution, and how much funding will arrive from the international community, are difficult to predict. Choosing the best strategy to implement can be challenging since uncertainty around shifting variables makes planning difficult.

For more details on the distinguishing characteristics of humanitarian crises, see Appendix 1.

7. However, a slow onset event can reach an acute phase without much perceived warning due to the international community responding too late. Therefore, slow onset crises and later stages of rapid onset crises may provide more preparation time needed to set up mobile money systems, but this is not always the case.





## C. An overview of cash transfers

Worldwide, cash transfers in humanitarian contexts are quickly replacing distribution of in-kind aid. While not appropriate in all contexts, they can be more efficient for humanitarian organisations (where markets are functioning), offer more choices to beneficiaries and provide an economic infusion into the host community. In 2016, cash transfers delivered $2.8 billion in humanitarian aid. While only representing 10.3 per cent of humanitarian aid, this was a 40 per cent increase from 2015.[8]

The humanitarian sector expects the value of aid delivered through cash transfers will continue to rise sharply in coming years, providing an opportunity for mobile money providers to meet a growing need. Understanding the mechanics of humanitarian funding for CVA helps explain how it is directed and its tendency to be both extremely time sensitive yet slow to take hold.

When a humanitarian crisis occurs, humanitarian organisations evaluate needs and formulate cost estimates for what will be required to alleviate suffering. Donors make commitments against those needs, but total commitments are typically less than the estimates. Actual donor disbursals may also end up being lower than the amount committed, arrive later than hoped or have restrictions on how funds can be spent. This can make it difficult for humanitarian organisations to plan. They may not have accurate timelines or budgets, and there may be periods when they want to be engaged, but do not have sufficient information to plan their response.

When funds arrive, humanitarian organisations may need to adapt their plans to the amount received, and then work with partners to distribute the funds quickly. Building partnerships should begin as soon as possible, and providers should develop contingency plans to respond to unpredictable funding. Being agile will help providers respond to the needs of humanitarian organisations quickly and efficiently.

## D. Professional culture and goals

The humanitarian and mobile money sectors have very different cultures, which can create misunderstandings when they work together. Simple issues like terminology are important to resolve early on. For example, mobile money terms like "ARPU" or humanitarian sector terms like "multi-purpose cash" can easily cause confusion, especially when communications are done remotely and in people's second languages. Being aware of this issue and taking the time to discuss proposals and challenges in person can make a significant difference.

**While most mobile money providers consider humanitarian organisations to be bulk payment clients, these organisations often require a more tailored service.** The humanitarian sector strives to stretch often thin resources to reach the most people in need with high-quality services that protect their dignity. At the same time, organisations may not understand mobile money systems well enough to know what kind of service they can expect to receive, while also trying to negotiate low cash transfer fees.

**Some services humanitarian organisations may expect include (but are not limited to) beneficiary training (i.e. trained by the provider or the agent), seamless agent liquidity management systems, and an accessible and culturally appropriate helpline service.** Providers may need to invest more time and money into adapting and developing existing offerings to ensure they meet the specific requirements of humanitarian organisations and the populations they serve. For example, by enhancing training to reach the needs of vulnerable populations, strengthening liquidity management in remote and challenging areas and hiring helpline staff to cater to diverse language needs. These expectations can be easily addressed by providers if the requirements are clear at the outset of the CVA project.

8. CaLP and Accenture (2018). The State of the World's Cash Report.

Spending time discussing what providers can and cannot provide is important for humanitarian organisations to accurately gauge the cost of the service they need. In a workshop managed by ELAN in 2016, humanitarian organisations reported valuing the quality of service over the cost of providing the services.[9] This suggests it would be advantageous for providers to offer a premium service for CVA programmes. However, discussion of these customised services should ideally take place before the humanitarian organisation issues a request for proposals (RFP), so that the quality standards and expectations are clearly stipulated in the RFP and both parties can manage their expectations.

Taking the time to understand the goals and operations of each sector will make it easier to work through these differences. **It is encouraging to keep in mind that an affordable CVA distribution system that operates with the humanitarian organisation's desired level of service quality is a shared goal, and the key to realising it is a strong partnership.**

**BOX 1**

### Minding the power dynamic

When delivering cash assistance, a power dynamic may be created between those involved in distributing it and those who desperately need it. An important initiative is being undertaken by UNHCR and WFP, together with other stakeholders, including GSMA, to mitigate risks of abuse of power in cash assistance.

Pilots have been conducted in the Democratic Republic of Congo (DRC) and Cameroon to identify and strengthen transparency and accountability of private-sector service providers in their delivery of cash assistance to vulnerable populations. The project worked with financial services providers, traders and other private-sector stakeholders, and raised awareness of cash recipients about their rights and capacity building on financial literacy, with interventions to mitigate potential abuse.

9. ELAN (2016). Mobile Money Workshop Report.



Mobile money enabled cash aid delivery:
Operational handbook for Mobile Money Providers


## Essential considerations for mobile money CVA

### A. Infrastructure

The infrastructure needed to operate a mobile money system for CVA is similar to that offered by standard mobile money operations, and in some contexts may already be in place. However, when mobile money operations need to be expanded into a new area, especially rural and/or remote locations, a comprehensive assessment of existing infrastructure is necessary to ensure the fundamentals for mobile money are in place or can be installed.

This includes:

- At least 2G **mobile coverage** for mobile money services;
- **Transportation infrastructure** (airports and roads) to get staff and cash in and out of the locations;
- **Energy source** to recharge handsets;
- **Proximity of financial infrastructure** or a reliable source of cash for rebalancing agents securely; and
- **Marketplaces** with economic activity and good options for agent locations.

In areas where one or more of these foundational elements is missing, residents are unlikely to be existing mobile money users and may not own handsets. While this could be a long-term business opportunity to increase customer acquisition in the area, in the short term there will be costs of building infrastructure. It is therefore unlikely that the revenue generated from CVA will support network expansion on its own.

**However, that consideration may change if it is possible to generate additional revenue from other mobile services, as well as register other beneficiaries and host community members**[10] **for mobile money.** If the business case for infrastructure expansion is still not convincing, it is worth exploring a partnership with a humanitarian organisation to gauge whether prohibitive costs might be de-risked and give beneficiaries access to the suite of mobile services that comes with network expansion.

10. Host community members are not affected by the crisis, but live among those who have been.

## B. Regulation

As with infrastructure, regulation issues for CVA are largely the same as standard mobile money operations. However, there are some key considerations, specific to refugee populations that can make an important difference in whether mobile money can be used for CVA.

**Important regulatory issues to investigate are:**

**Identification requirements** for both SIM cards and mobile money services. Many refugees may not possess a government-recognised proof-of-identity document (e.g. a national ID or passport), yet these documents are a common requirement for registering mobile money services in their own name. It is important to understand which documents qualify for registration, the proportion of the targeted population that have them, and how SIM registration and KYC processes differ in terms of what forms of identification are acceptable.

**Tiered Know Your Customer (KYC) policies** may allow for reduced identification requirements for people opening accounts that have transaction and/or balance limits. This describes most beneficiaries and can be advantageous in countries where people do not meet standard requirements, such as having a national ID or a permanent address.

**Becoming a mobile money agent can be a lengthy process and may exclude refugees, who can play an important role in building trust in the mobile money system in their communities and overcoming language barriers.** Government legislation may prevent or restrict refugees from being employed and obtaining the necessary documentation to become an agent (e.g. business licence, identity documents). An MNO's internal processes could also exclude refugees, such as the requirement that a potential agent earn a certain level of income.

**Data privacy laws** specify what kinds of customer information can be collected and used, and how access to this data may be shared with partners, if appropriate. Laws that impose limitations on the power of government agencies to request access to MNO data are important considerations.

**Data localisation laws** may require consumer data to be stored on servers in the country where the consumer is present, or it may be possible to store it on servers elsewhere. This can have important cost implications.

## C. Transfer types

The stage of a humanitarian response (emergency vs. recovery) will affect the type of cash transfer programming required (e.g. basic vs. longer term needs) and the volumes and values of the transfers.

The goals of the organisation making the transfer (e.g. food aid, shelter construction) may also place restrictions on the transfer, which will either require creative solutions, or possible product development.

Figure 2

**Restricted and conditional assistance**

| Concept | Description | Examples |
|---|---|---|
| **Restricted assistance** | The humanitarian organisation wants to limit how the beneficiary can use the cash transfer. | • E-voucher delivered by SMS that can only be redeemed for a bag of fertiliser.<br>• A mobile money account where cash can not be withdrawn, and can only be used at approved merchants for purchases. |
| **Conditional assistance** | The beneficiary must meet certain conditions to receive the transfer. | • Making a household transfer conditional on a child's attendance in school.<br>• Cash-for-work transfers where the transfer is only made if the agreed upon work is done. |

The most common contingency is a **restricted transfer**, often through a voucher system.[11] The voucher system is labour-intensive to set up because a network of merchants must be prepared to accept the voucher. The humanitarian organisation may recruit and train merchants themselves or rely on the provider. Merchants may be responsible for stocking the goods for which vouchers can be exchanged or, if a supply chain needs to be built, the humanitarian organisation will generally do that work.

Another common contingency for beneficiaries in CVA programmes is a **conditional cash transfer.** Conditional cash transfers can add a layer of complexity as verification is necessary before the transfer can be made. In these cases, humanitarian organisations will seek payment products that easily track who meets the criteria for receiving a transfer, which may change regularly. Ideally, they would also have a system that could automatically update and release transfers for beneficiaries as the requirement was met.

11. Voucher systems can be unrestricted, too. Vouchers can be designed to be redeemable for cash, which can be beneficial when it is not reasonable to register beneficiaries because of time or other constraints.

Figure 3

**Types of digital CVA**

**Assistance transferred from the humanitarian organisation**

**Types of digital cash and voucher assistance (CVA)**

### Mobile money

Key characteristics

Assistance received via a mobile money account

**Provider: mobile money provider**

Beneficiary is able to transfer cash digitally (e.g. P2P), convert digital money to cash by cashing out at an agent and has access to other services (e.g. bill pay). Restrictions to specific stores where cash can be spent can also be applied.

**Pro:** Link to wider digital ecosystem; cheaper recurring payments; high beneficiary choice when unrestricted. Transfers restricted to be spent in certain stores can target specific programme objectives (e.g. nutrition-based goals).

**Con:** Expensive set-up costs, KYC requirements.

### E-voucher

Key characteristics

Assistance received as voucher to mobile phone or to a card

**Provider: MNO or other financial institution such as a bank**

**E-cash voucher:**
Beneficiary withdraws cash assistance at pre-approved locations.

**Pro:** Limited or no KYC requirements; medium beneficiary choice

**Con:** Expensive, limited beneficiary choice in terms of where cash can be withdrawn

**E-goods voucher:**
Beneficiary redeems voucher at pre-approved merchant for prescribed goods (e.g. food).

**Pro:** Can target specific programme objectives (e.g. nutrition-based goals); truly digital system (no movement of cash), limited / no KYC requirements.

**Con:** Expensive, very limited beneficiary choice.

### Card-based system

Key characteristics

Assistance received to card distributed to beneficiaries

**Provider: Usually a financial institution such as a bank, but also mobile money providers**

**Cash transfer:**
Beneficiary withdraws cash using card at ATMs, preapproved merchants, mobile or bank agents.

**Pro:** Medium to high beneficiary choice.

**Con:** Potentially limited options to cash-out assistance.

**Goods transfer:**
Beneficiary redeems goods using card at pre-approved locations / merchants.

**Pro:** Can target specific programme objectives (e.g. nutrition-based goals).

**Con:** Very limited / limited beneficiary choice.





# Evaluating strategic alignment

## A. Defining the business case

The business case for delivering CVA is generally based on building a long-term strategic advantage rather than generating short-term profits. The time required to develop a customised service and the relatively small margins earned from CVA transfer fees mean that large revenues will come over time as volumes of transactions from CVA programmes increase and customers use additional mobile services.

Providers operating in different environments will have different goals which affect how they make business decisions. Some providers may want to expand their client base in a new region even if it reduces ARPU or creates a loss in the short term. They may also find it strategic to engage in partnerships with humanitarian organisations to improve their brand.

In summary, the provider's goals and operating environment will affect how any business model for CVA is built and evaluated by management. **The business case will vary significantly depending on the humanitarian context, the corporate structure of the provider, and assumed costs and revenue.** A one-size-fits-all business model will be too generic for the unique conditions of humanitarian crises.

The decision to engage in CVA distribution by a competitor or another country operation (opco) of Group does not necessarily have relevance to how advantageous it is for other providers. There is no single way to model this, and it will be highly contextual to each provider.

For a more detailed list of revenue sources, see Appendix 2.

## B. Business opportunities

While mobile money systems have many attributes and competencies that make them strong partners, a provider's existing offerings may not be the exact solution sought by humanitarian organisations. This is an alluring business opportunity because there is potential to develop services that offer more value (and command higher margins), while also fostering a long-term competitive advantage over other providers that do not make the same investments. For mobile operators like MTN, Airtel, Orange, Vodafone, Etisalat, Zain, Millicom and Telenor, all of which have operations in multiple countries with humanitarian crises, the benefits of these investments can extend across borders to their other operations.

There is high potential for innovation, because while initial experiences with digital CVA delivery have yielded a wealth of insights about how systems might be improved, there are not many new offerings on the market that fill these demand gaps.

Some of these ideas require software engineers or specialised skills, so mobile operators should evaluate which ideas they have the time and funds to pursue. Even when resources are limited, it is still beneficial to pursue partnerships with specialist organisations. For example, in many countries there are technical service providers that specialise in building customised payment portals.

A myriad of technology companies provide biometric, pay-as-you-go (PAYG) solutions and other services, and are exploring how they can support people in humanitarian contexts. The GSMA Mobile for Humanitarian Innovation programme funds several companies deploying mobile-enabled products and services in forced displacement and complex emergency contexts.[12] These services are discussed in more depth in Section 2: Structuring Successful Operations.

12. For more on these initiatives, see the GSMA Mobile for Humanitarian Innovation (M4H) Innovation Fund.

Opportunities for innovation can be categorised into three areas:

- **Customised operations** that develop specialised technology and field support for the humanitarian organisation;
- **Product innovation** that develops tailored products for CVA transfers; and
- **Auxiliary product development**,[13] including other mobile products that may not be based on mobile money, but make the overall value proposition to the humanitarian organisation more dynamic and appealing.

For a comprehensive list of innovation opportunities, see Appendix 3.

Figure 4

**Innovation opportunities framework**

| | |
|---|---|
| Customised operations | • Customised payment portals<br>• Field operation support for training beneficiaries<br>• Biometric verifications |
| Product innovation | • Restricted mobile money accounts<br>• Online to offline systems |
| Auxiliary product development | • Mobile-enabled utilities<br>• mHealth<br>• mEducation |

13. For examples, see GSMA (2017). The Importance of Mobile for Refugees: A Landscape of New Services and Approaches.





## Customised operations

Interviews with humanitarian organisations revealed the need for services that would require providers to customise their existing services to meet specific requirements in humanitarian contexts. These custom offerings include:

**Customised payment portals,** which allow humanitarian organisations to easily upload beneficiary lists, use existing internal payments approvals processes and easily track the status of payments made. Technology service providers currently offer this to humanitarian organisations (see Box 3 in Section 2), and providers can consider building expertise and software to make this part of their offering.

**Offerings that include biometric solutions** for beneficiary registration and verification when they collect their CVA transfer are increasingly popular with humanitarian organisations (see Box 7 in Section 2).

**Field operation support for training beneficiaries** includes providing continued customer support and monitoring services for agents, ensuring high levels of customer service.

## Product innovation

Typically, one of the stipulations of a CVA programme is that it should be available to all intended beneficiaries. If beneficiaries live in areas without mobile coverage, products with integrated offline functionality can provide a solution. Communication between devices can be done offline through bluetooth, RFID, NFC or QR codes, with the agent/merchant device (which can be a smartphone) regularly syncing to update the central server.

## Auxiliary product development

Bundling these options with other mobile-enabled services can further strengthen relationships with humanitarian organisations. For example, PAYG solar home systems that leverage mobile money and machine-to-machine (M2M) functionalities are deployed in refugee contexts in Kenya, Uganda and Rwanda.[14] Mobile technology can also improve or expand access to other essential services provided by humanitarian organisations, such as agriculture, health, education, water and sanitation.

14. The GSMA recently published a report exploring the use case of PAYG solar home systems in Kakuma Camp, Northern Kenya. See: GSMA (2019). Mobile-enabled energy for humanitarian contexts.

## C. Making the decision to engage

The type of humanitarian crisis, a humanitarian organisation's willingness to invest in a partnership, the competition and the provider's own strategic goals, all influence the decision to invest in delivering CVA through mobile money, and different providers in the same ecosystem are likely to make different conclusions.

The level of investment to launch operations and create a long-term competitive advantage are important factors in the decision to engage. As Figure 5 illustrates, if large investments in infrastructure are required (i.e. there is no existing coverage), services will need to generate significant revenue.

In areas where humanitarian partners are willing to support mobile expansion, the cost of investment may be more reasonable. In humanitarian contexts where there are high-density populations of FDPs, revenues generated from providing mobile services may make the investment profitable.

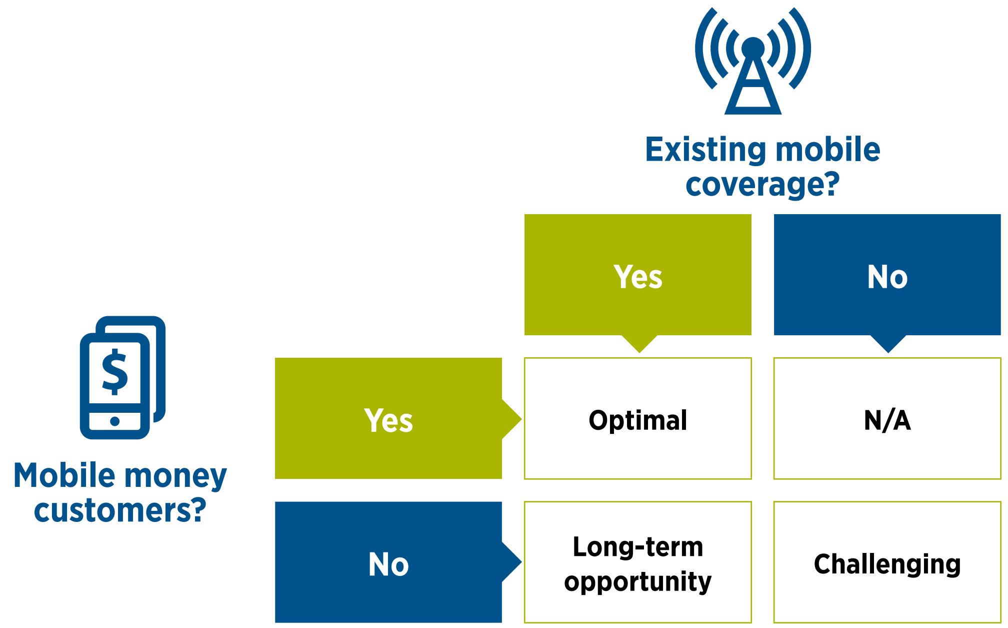
If the necessary mobile connectivity infrastructure is already in place, the secondary decision will be whether to invest in building additional operations for mobile money. In select cases, such as northern Kenya or urban Uganda and Somaliland, mature mobile money services are already functioning. This is optimal, as it can mean little or no investment to deliver CVA and humanitarian organisations can begin using the system immediately.

**However, most areas where humanitarian crises occur are likely to have some level of supportive infrastructure in place, such as 2G connectivity. Nevertheless, the mobile money system may need investment to extend its reach, improve service delivery, or bolster its product suite.**

In scenarios where minimal investment can expand rudimentary mobile money services, providers may pursue CVA contracts to earn revenue. However, even when only limited investment in infrastructure is necessary, providers may want to consider larger investments in premium services to create a longer term sustainable advantage in a growing market where larger margins are possible. **If providers have the resources and expertise, and the humanitarian context is conducive for investment, there will be strategic alignment with the providers' long-term goals, and investment in delivering CVA through mobile money should be seriously considered.**

Figure 5

**Decision matrix for engagement**






Mobile money enabled cash aid delivery:
Operational handbook for Mobile Money Providers

# Section 2. Structuring successful operations

## Introduction to CVA operations

This section provides guidance on how to structure a successful CVA operation. There are seven operational phases of mobile money CVA, which begin sequentially then increasingly overlap and execute in tandem from Phase 5.[15]

Figure 6

**Seven phases of mobile money CVA**


15. For example, disbursement and liquidity management happen at the same time, but since liquidity management is a challenging issue, it is included as a separate phase.





The seven phases are standard for all countries, but the **stages within each phase** vary across countries and contexts, and between humanitarian organisations, which may have their own operational manuals that they follow. Box 2 features common examples.

The major stages of each phase are identified, noting which stakeholder takes a leadership role, although in some stages leadership is shared. Stages led by the humanitarian sector may require little or no action by the provider, but are included to provide a comprehensive understanding of the process.

**BOX 2**

### Humanitarian Standard Operating Procedures (SOPs) for mobile money CVA

- Many large humanitarian organisations have SOPs for implementers, and in many cases are online for providers to review. CaLP has synthesised best practices in the sector and published a toolkit for humanitarian organisations working with CVA: Operational Guidance and Toolkit for Multipurpose Cash Grants. SOPs for specific humanitarian organisations are provided in the links below and are helpful to review to understand their processes. Note that these are updated regularly.
- IFRC Cash in Emergencies Toolkit
- WFP Cash and Vouchers Manual
- UNHCR Guidelines for Cash-Based Interventions in Displacement Settings
- UNICEF Cash Based Approaches in Humanitarian Action
- Mercy Corps E-transfer Implementation Guide for Cash Transfer Programming
- Oxfam Working with Markets and Cash
- Care Emergency Toolkit

Examples and outcomes are highlighted (where appropriate) in the different operational design phases for key activities. Finally, mobile money provider goals in each phase are identified as checkpoints that can be used as operations progress. There are already many lessons to be learned from countries with experience in mobile money CVA, including Haiti, the Philippines, Uganda, Kenya, Tanzania, DRC, Somaliland, Pakistan, Bangladesh, Chad, Cameroon, Niger, Zambia and Zimbabwe.

However, those managing mobile money CVA programmes should **expect operations to become more effective with time and experience, and the operational guidance provided here is a baseline from which improvements can and should be designed.**

## PHASE 1
# Research and infrastructure

Table 1

**Research and infrastructure phase**

| | Description | Lead partner |
|---|---|---|
| **Initial landscape scoping** | • A rapid and comprehensive assessment of beneficiary needs and the most efficient aid delivery mechanism will be undertaken.<br>• Areas for investigation: functioning of local markets, security levels, mobile coverage, financial infrastructure and inclusion, and the regulatory and policy environment.<br>• For beneficiaries: including, but not limited to, handset penetration, literacy and digital literacy levels, identity documentation penetration for SIM cards and KYC requirements, gender-disaggregated data. | Shared |
| **Stakeholder consultations** | • Public meeting where the humanitarian organisation invites all interested (and sometimes pre-qualified) bidders to discuss the potential project/partnership.<br>• Can also be done formally as Request for Information (RFIs), ideally before and after the landscape scoping.<br>• Purpose: to ensure all information is clear and available, the process is transparent and yields intended results (attracts the optimal partner). | Humanitarian |
| **Building infrastructure/ advocacy efforts** | • If initial scoping identified policy or infrastructure issues that must be solved before a CVA provider is selected, mesures to alleviate these issues could take place in this phase.<br>• Examples: Advocating with the appropriate regulators to accept UNHCR IDs for beneficiary registration or waiving the need to have a registered business to be an agent in a settlement.<br>• Some activities (e.g. expanding coverage) may be specific to the selected mobile money provider and therefore can only take place once they have been selected. | Shared |





The research and infrastructure phase marks the start of operations, yet many providers only become involved once the request for proposal (RFP) is advertised. Often that is too late, as RFPs can have short advertisement periods, complex requirements and incomplete information, which does not leave enough time to design new services or operations. **Ideally, a provider should be proactively involved in this phase, which may involve providers being in close communication with the humanitarian sector.** The goal is to include information needed in the landscape scoping,[16] while also providing relevant information and data to humanitarian organisations (e.g. network coverage, mobile usage, mobile money regulations) so that the RFP is realistic and detailed.

To ensure awareness of CVA programmes in this early phase, it is important to be engaged with the humanitarian community, for example, by **joining local cash working group meetings.** This can help providers understand humanitarian plans and goals, while also ensuring a private-sector perspective is included. The meetings can also be a source of **inspiration for innovative new products and services** that address the challenges faced in the field.

**This phase is the beginning of an investment in long-term returns.** In a rapid onset crisis, this phase can compress to weeks, and informed decisions will ensure assistance is disbursed as soon as possible. In other situations, **scoping** could reveal infrastructure or regulatory issues that need to be solved before the CVA programme starts, and could last months.

By the end of this phase, the mobile money provider can decide whether a CVA programme is appropriate. All the information needed to craft an operational plan, and an associated financial projection, should be available. Anything that is not included will need to be collected by the provider, so there is a significant incentive to ensure the humanitarian organisation provides it.

**Some important information to be included in the research:**

1. Regulations (availability of KYC documents for refugees, refugees' right to work, the process for a refugee to open a business, i.e. to be a mobile money agent);
2. Infrastructure (road access, nearest financial infrastructure, signal strength);
3. Host community/FDP/beneficiary demographics (ID card type/penetration, level of economic activity, languages, percentage of adults, handset penetration, financial services use);
4. Restrictions (access to settlement/camp, access to beneficiary data, restrictions on the importation of cash into the settlement/camp);
5. CVA specifications (value, volumes, conditions for distribution, restrictions on use, timelines);
6. Service-level standards (distance to an agent, error rates on bulk transfers);
7. Activities (beneficiary registration, training);
8. Hardware (SIM cards, handsets, phone-charging facilities); and
9. Other projected CVA activity in the area.

16. To learn more about landscaping scoping and the methods used, see: ELAN (2018). The Delivery Guide: Scoping the Humanitarian Payments Landscape.

PHASE 2

# Building partnerships

Table 2

**Building partnerships phase**

| | Description | Lead partner |
|---|---|---|
| **Issue Request for Proposal (RFP)** | • The RFP should clearly state: 1) which institutions qualify to bid, 2) the requirements for the proposal, and 3) the service-level standards that are expected.<br>• If the RFP is missing key information, there is usually a mechanism to query the issuing institution. It is common that two to four weeks is given for a response. | Humanitarian |
| **Bidding on the RFP** | • Bids require mobile money providers to create an operational strategy and an associated financial model for internal approval.<br>• It is important to visit the location and speak to the field teams to understand in detail the operations that will need to be put in place, and whether any product development or additional partnerships will be required. | Providers |
| **Selecting a winner** | • Can take weeks or sometimes months.<br>• Usually the local humanitarian office will rank responses, but then send them to the head office for approval, which can take time. | Humanitarian |
| **Due diligence and contract negotiation** | • After the winner is selected, negotiation and due diligence begins.<br>• Agreements should be strategic, clear and mutually beneficial to encourage longer term partnerships. This stage can take weeks or months. | Shared |

This phase **sets the tenor of the relationship** between the mobile money provider and humanitarian organisation. The goal is to initiate a close working relationship built on trust, a mutual understanding of each other's goals, and a shared long-term vision. The first step is to put together a well-researched bid that demonstrates understanding of the needs of the humanitarian organisation and beneficiaries.[17]

17. Attention to language and terminology is important. CaLP (2019). Glossary of terminology for cash and voucher assistance.





### Strategy design

Design a strategy that will allow the humanitarian organisation to outsource most of the operations associated with the CVA and assure them that the protocols put in place will **protect the safety and dignity of the beneficiaries** involved. If subsidies are needed, ensure they can be included in the bid, but also clarify how they will translate into a sustainable service in the future. It is important that providers align expectations in terms of what they can currently provide, what systems and services they may need to provide to meet the organisation's needs and offer **innovative ideas that will win the bid.** See Appendix 3 for innovation ideas.

### Explore other partnerships

This is usually the time to **formulate other partnerships.** If offering a customised portal and reporting tools, this is the time to seek out the best partner. If rural operations are going to require a new master agent and/or specialised field support for liquidity management, connections should be made at this stage.

### Contract types

The **types of contracts** and agreements signed in this phase vary. In some cases, providers may begin contract discussions with a non-disclosure agreement (NDA). NDAs can increase the length of contract discussions as large UN agencies may insert clauses that will need to be approved by lawyers on both sides, according to their policies. Humanitarian organisations may also want to use NDAs as they must publicly disclose how the funds they received are used.

BOX 3

### Framework contracts

Beyonic is a technology service provider (TSP) currently working in five countries. In Uganda, they provide interoperable portals, transfer monitoring software and an intuitive dashboard for CVA with CRS, CARE and Save the Children.

Segovia provides similar services to NGOs and in rural areas for agricultural payments. TSPs have teams of developers to build customised bulk payment interfaces and functionality.

TSPs work in some of the most developed mobile money ecosystems in the world and add value by:

- Customising the portal to a client's internal processes;
- Creating, reporting and monitoring dashboards;
- Aggregating payments from multiple providers;
- Fixing glitches in platform security;
- Offering foreign exchange services;
- Tracking down unsuccessful payments; and
- Serving as a liaison between the provider and client.

Another approach is to begin with a global agreement or **general framework** agreement that aligns principles, SOPs and often a fee schedule. This can allow the partnership to extend to other countries where both organisations are present, and/or extend the agreement to future CVA programmes without re-bidding. However, even if an agreement is made on a global level, country regulations may stipulate that **due diligence** still be carried out between the local entities under their jurisdiction.

It is likely that the humanitarian organisation will have a contract template they want to use. Obtaining it early in the process for the legal team to review can expedite the process.

Both parties should understand that more customer services (such as agents educating beneficiaries or proximity of agents) increase the fees associated with the contract. Therefore, the discussion can focus on how much the humanitarian organisation wants to outsource to the provider and the level of quality the services should be. It is crucial to outline individual costings in the contract or in a separate detailed service-level agreement (SLA).[18]

Humanitarian organisations may bargain for lower fees, as they may believe that higher fees will prevent them from serving all their beneficiaries. However, it is important they understand that saving in one area may lead to cutbacks elsewhere, such as a lower number of agents, lower levels of float, or agents that may not have the time or appropriate resources to educate their beneficiaries on mobile money. In these cases, **costs are shifted to the beneficiaries** in terms of the time and effort it takes them to receive their cash.

Two perspectives are helpful here:

- Humanitarian organisations may not understand that when cash assistance is delivered digitally, this does not circumvent the logistics of moving cash and goods, which the provider pays for. It is important to acknowledge that while digital money is safer, more transparent and cost-effective than cash, beneficiaries may still initially prefer cash, and providers must still conduct the necessary logistics to deliver it to them. It may be helpful to communicate that digital cash is still less expensive than in-kind aid or cash in an envelope. A provider could consider offering discounts for guaranteed CVA volumes.
- Mathematics is a shared language, and **everything that can be quantified should be**. It may help to start with provider baseline statistics on the time it takes to replace a SIM card, distance to an agent and agents that lack liquidity on a given day. Then, discuss which metrics to target for the project and how they will be monitored.[19] For these discussions, it is important for the provider to provide the requisite change in cost, given differences in target metrics. **Tying higher prices to higher quality services** can help humanitarian organisations understand the value of their increased investment.

**BOX 4**

### Framework contracts

Segovia has global procurement contracts with Save the Children and International Rescue Committee (IRC), which means in countries where Segovia has a presence, CVA disbursements can be set up in days as opposed to the three to nine months it usually takes. UNHCR has a group level agreement with Standard Chartered, making it much easier for UNHCR to procure services from the company, and in Zambia, Standard Chartered manages the CVA mobile money contract. On a national level, Concern International uses a framework agreement with Telesom in Somaliland that states the fee schedule and general terms, and subsequent procurements are managed easily under the framework.

18. There should also be information on the service-level quality standards in the RFP.
19. For ideas of metrics to include, see: Reeves, G. Mobile Money Assessment and Contracting Guide. ELAN.





## PHASE 3
## Registration and awareness

Table 3

**Registration and awareness phase**

| | Description | Lead partner |
|---|---|---|
| **Beneficiary profiling (selection)** | • Once funding is secured from a donor, the final details of how many beneficiaries and their location is determined.<br>• Usually community leadership committees will help the humanitarian organisation select people from their communities that are most in need. | Humanitarian |
| **Distribute hardware and register beneficiaries** | • Procurement of handsets and SIM cards where beneficiaries do not already have access. This may have been foreseen and thus part of an existing contract, or it may need additional agreement after beneficiaries are selected.<br>• Hardware will likely be distributed during registration.<br>• Beneficiary training on the CVA programme and mobile money functionality is conducted. | Shared |
| **Register and activate agents** | • Once the number and location of beneficiaries is finalised, the number of agents required and their locations will become clear.<br>• If new agents are needed, they will be registered, given tills and trained. It would be beneficial for agents to be registered at an earlier phase to facilitate additional registration of non-CVA recipients, as agent registration may take a long time for regulator approval. | Provider |

The goal of this phase is to ensure beneficiaries and agents are registered and have the tools to receive funds. They also need to have a preliminary understanding of the CVA programme.

The amount of funds received by the humanitarian organisation from the donor may not match what was originally planned for, and funds may also arrive late. Both the humanitarian organisation and the provider will **need to be operational immediately with adjusted budgets and operational plans.** This may require an agile reallocation of staff and resources, and this flexibility will be an added advantage for the provider when bidding for a CVA project.

## SIM card and handset distribution

Beneficiary profiling will determine the final count of handsets and SIM cards to distribute. Sometimes, beneficiaries who do not have a SIM card nor a handset are only given SIM cards to save project funds. However, this is becoming a less common practice as **SIM cards are easily lost/damaged** and it prevents the beneficiary from taking advantage of other important benefits of mobile connectivity and mobile money services.[20] Providers will note that this also limits their revenue. When purchasing handsets,[21] humanitarian organisations want the best deals possible, but it is also important that the **handsets are field tested,** as cheap phones in crisis conditions can have a short life span.

## Issues with SIM card deactivation

Both partners should be familiar with regulations around **SIM dormancy and deactivation.** In many countries, if a SIM card is not used for 60 days (depending on the country's regulation[22]), it is deactivated, and the associated phone number is allocated to another SIM card. This is problematic for FDPs who may only use their SIM card for receiving CVA. If the mandated deactivation period can be lengthened to six months or longer for SIM cards related to the project, it can be beneficial to all stakeholders. Providing training to encourage beneficiaries to use mobile services can also prevent SIM card deactivation, while offering the broad benefits of digital inclusion to vulnerable populations.

BOX 5

### Focusing on FDP identification during registration[23]

Humanitarian organisations and mobile operators in Jordan, Uganda and Somaliland all faced challenges registering FDPs for mobile money due to identification issues.

In Jordan, UNHCR issues proof of registration to Syrian persons of concern in camps, and an asylum seeker certificate to those in urban or non-camp settings. Syrians both inside and outside camps are also issued a Jordanian Ministry of Interior card (MoI) by the Syrian Refugee Affairs Department. While many UNHCR IDs have a refugee's MoI card number listed on it, many refugees are still waiting for their MoI card to register for a mobile money account.

In Uganda, the Office of the Prime Minister – Department of Refugees (OPM-DOR) issues asylum seeker certificates and refugee attestation letters. OPM-DOR also issues refugees a refugee ID card — a form of national ID. A refugee ID card is required for SIM card and mobile money registration. Unfortunately, there is a significant backlog with issuance of refugee ID cards, making it difficult for refugees to have SIM cards and mobile money accounts registered in their own names.

Somaliland has no national ID scheme, so different INGOs create their own ID card systems to issue to IDPs and/or use biometric identification. WFP is using their PROGRES system to identify IDPs receiving CVA. Centralised ID systems can be beneficial if they are designed in an inclusive, secure and robust manner with the appropriate data protection measures in place.

20. In these situations, beneficiaries inserted the SIM card into a family member's phone or an agent's phone to cash out.
21. For earlier GSMA research on smartphone affordability and different options for handset financing, see: M. Karlsson, et al. (2017). Accelerating affordable smartphone ownership in emerging markets.
22. This can range from 30 to 180 days.
23. UNHCR (2019) Displaced and Disconnected



Mobile money enabled cash aid delivery:
Operational handbook for Mobile Money Providers

## Centralised registration events

Hardware (SIM cards and handsets) is typically distributed during beneficiary registration, which is usually coordinated between the humanitarian organisation and the provider. Ideally, **beneficiaries can be gathered centrally** so that most of them can be entered into the system for mass registrations. Generally, there are multiple registration events in different locations to register all beneficiaries, so it is important to budget for that. If ID cards are used for registration, all registering agents need to **clearly understand which ID cards are valid** for both SIM card registration and mobile money registration.

## Initial awareness training

Gathering beneficiaries together helps to create a community where they can help each other. This is beneficial if community leaders are asked to identify multiple people for registration (when other forms of identification are not possible). **Initial awareness training** on the CVA programme needs to be provided, as well as basic instructions on the handset and mobile money system. This takes time, and providers or humanitarian organisations may need to hire additional staff that speak FDP languages. **Training may need to be an iterative, continued process throughout the lifecycle of the CVA programme** to ensure that beneficiaries understand how to use the mobile money service.

## Electing an alternate

It is common that the beneficiary will not be the one collecting the transfer, especially when the beneficiaries are persons with specific needs (PSNs). In these cases, the beneficiary **elects an alternate** who can collect the transfer for them. The alternate will likely have to be present to be registered and take part in the initial training. Providers will need to ensure their databases are set up to manage alternates on beneficiary accounts.

## Planning for digital registration

It is preferable to **register FDPs digitally,** which usually means the registration location should have reliable data coverage. This allows providers to capture photos of the beneficiaries, their ID cards and/or biometrics. Providers that capture this data offline, and then travel to locations with a signal to sync it with the central database, can risk finding data entries that do not match with the government database or are invalid for other reasons, which then require the beneficiary to be located again.

BOX 6

### Persons with Specific Needs (PSNs)

A CVA programme will include some PSNs as beneficiaries. Examples can be physically disabled people who have difficulty travelling to the cash-out point, people with low literacy who need assistance understanding the menu, or elderly people who are less likely digitally literate.

Even if PSNs are the minority of targeted beneficiaries, humanitarian organisations should look for a solution that is appropriate for all beneficiaries, and providers that offer customised solutions for PSNs will have an advantage over those that do not. In some cases, a provider will be eliminated from a competitive process because they do not offer a solution that works for all beneficiaries.

Mobile money enabled cash aid delivery:
Operational handbook for Mobile Money Providers

### Tagging beneficiary SIM cards

In many cases, it will be important to introduce a system for **tagging beneficiary SIMs** so that any issues can be identified and handled. There have been cases where providers have issued temporary mobile money accounts during registration, and needed to manually verify details before the account became permanent. If the provider has a backlog of accounts to verify during beneficiary registration, they go into the queue for manual verification, and if the provider does not tag the beneficiary's SIM cards, the verification cannot not be expedited. When the verification is completed months later, SIM cards may have already been deactivated due to non-use. Therefore, tagging beneficiary SIM cards can save time and costs.

### Auxiliary registrations

In new areas of expansion, mobile money providers may want to **register surrounding FDPs and the host community** in addition to beneficiaries. This will increase revenue overall, but importantly, it helps ensure that agents in the area have business beyond the CVA transfers. Otherwise, they may not be motivated to offer mobile money services. Airtel and UNCDF in the Bidi Bidi settlement in northern Uganda have used this strategy.

### Evaluating agent density

Evaluating whether more **agents** should be registered and how many is often difficult. It will depend on how many agents are already in the location, their liquidity, the values of the transfers, the number of beneficiaries, and the provider's agent network management strategy. The agreement made with the humanitarian organisation may have a stipulation on agent location, requiring them to be within a certain distance of where beneficiaries live.

This needs to be considered carefully because locating agents close to beneficiaries in areas with low population density may mean there will not be a business case to support them. However, the farther away they are from beneficiaries, the less frequently people will use the mobile money service.[24] **A delicate balance** must be reached between **agent density and agent financial sustainability,** which will depend to a large extent on the context.

The balance struck may be unique to a CVA programme because of the **liquidity imbalance at agent locations** that primarily perform cash-outs. Given that humanitarian settings are often in logistically challenging settings or in areas with sparse populations, providers have two options to consider: a surge strategy or a smooth strategy.

### Surge strategy for agent density during distributions

A **surge strategy** places additional agents at a CVA location during a pay-out period (i.e. when beneficiaries conduct cash-outs). MTN Uganda, EasyPaisa Pakistan and Digicel Haiti report using this strategy. This can also involve erecting temporary GSM towers in an area for the project period.

Usually beneficiaries are asked to gather in predefined areas near where they live, and agents set up temporary disbursement points there. Both Save the Children and ACDI/VOCA have used a similar **clustering approach** in the response to the Ebola crisis in Liberia, as did DanChurchAid in Uganda. Security is crucial for this to work successfully because of the large amount of cash that will be on hand. It is common to have agents travel with armed guards who remain on location for the duration of the distribution.

24. Beshouri, P.C. and Gravrak, J. (2010). Capturing the promise of mobile banking in emerging markets. McKinsey & Company.



### Pros and cons of a surge strategy

The surge strategy has the distinct advantage of not tasking agents with dealing with the **extreme volatility in liquidity demand** that happens during a CVA transfer. In many cases, they do not have the capacity to handle it, and without surging additional agents into the area, the provider would have to provide customised rebalancing services for existing agents during the transfer. However, if agents are not located close enough to beneficiaries, or there are not enough of them, beneficiaries will be forced to travel long distances and wait in lines.

The major disadvantage of the surge strategy is that the **additional agents** brought into the area **erode the revenues** of permanent agents. Having permanent agents in the area allows non-beneficiaries to use the mobile money system and at times other than when transfers are made. This is an essential component of the provider business case, and an argument for using mobile money to increase financial inclusion. Thus, the effect of a surge strategy on permanent agents in the area needs to be monitored closely.

### A smooth strategy for staggering payments

With a **smooth strategy,** beneficiaries are given their transfers in batches at different times of the month. Staggering the transfers should reduce the volatility in demand for cash at agents, allowing them to serve more people over the course of the month. This strategy supports permanent agents in the area by making it easier for them to generate revenue from more people. The FATA Disaster Management Authority (FDMA) in Pakistan used this strategy to allocate their transfers over seven to 10 days.[25]

While a smooth strategy can place less stress on liquidity management, it seems to be less common. One of the reasons cited by DanChurchAid in northern Uganda is that it is logistically challenging. For example, it can be difficult to communicate with beneficiaries, especially if they have low levels of digital literacy and/or spend a significant amount of time outside mobile coverage. Simply texting or calling to remind them of their distribution date is therefore not an option, and **field teams must work with community leaders before every transfer to locate and advise every beneficiary of their transfer date in person.**

### Registering new agents

Beyond decisions about the number and density of agents, the process for registering them and the agent profile must also be considered. For one provider in northern Uganda, **finding a master agent**[26] that has both enough wealth to rebalance agents and enough distribution experience to recruit and manage them was an ongoing process, years after services were launched. However, the use of master agents to deliver liquidity to agents has been cited in Mali and Chad as an important strategy for maintaining agents in rural areas,[27] so it may be a worthwhile investment.

25. GSMA (2017). Landscape report: Mobile money, humanitarian cash transfers and displaced populations.
26. A "master agent" refers to an entity contracted by the provider to manage a group of CICO agents, for which they usually receive a percentage of the revenue the agents generate.
27. Gilman, L. et al. (2015). Spotlight on rural supply: Critical factors to create successful mobile money agents. GSMA and Altai Consulting.

### Hiring refugees as agents

The process for registering new agents is also important. In Uganda, all supportive documentation for new agents was collected and sent to Kampala for regulatory approval, which caused major delays. Furthermore, providers thought it would be beneficial to have some **refugees as agents** as they had the trust of their local communities and were the only ones who spoke their language. However, these refugees found it difficult to obtain a business license (a requirement of becoming an agent), or raising the minimal capital requirement necessary.

To solve these problems, one provider decided to use a **kiosk model.** Kiosks were registered in the name of the provider to expedite the registration process, and then installed at the cost of the provider in strategic locations in the Bidi Bidi settlement in northern Uganda. Refugees were hired as salaried workers and given capital to transact. While this creative strategy solved many pressing operational problems, the provider must ensure the agent is carrying out enough transactions to support the capital investment and their monthly salary.

### Roving and fixed agents

If the provider plans to have agents in the area beyond the disbursement period, they may choose to have **roving agents** that move around the area or fixed agents that operate from one location. **Fixed agents** are by far the most commonly chosen option; in some cases, regulation prohibits the use of roving agents. However, many providers will use roving agents when moving into a new territory to test the business case for operations there, or as a stopgap measure until fixed agents can be identified and activated. For instance, Safaricom M-Pesa used roving agents when they were launching their mobile money product. They sent roving agents to markets on a weekly basis in order to understand the number of transactions agents would make.

It is common that different communities in an area will have designated market days, and roving agents will move between these markets throughout the week. Roving agents can also be used in a surge strategy, as UNHCR has in Zambia, with the provider ensuring there are extra agents in the area to meet increased demand. Providers that do not provide agents with uniforms and ID cards or use the same shirts as uniforms for promotional giveaways run the risk of imposters posing as agents, duping beneficiaries and taking their money.





PHASE 4
## Training and pilot

Table 4

**Training and pilot phase**

| | Description | Lead partner |
|---|---|---|
| **Validate beneficiary list** | • The humanitarian organisation may have to sync their beneficiary list with the mobile money provider's customer database.<br>• The beneficiary list may be an Excel spreadsheet that the humanitarian organisation will upload into the bulk payments portal to be compared with the provider's customer database. | Shared |
| **Digital and financial literacy training** | • In cases where beneficiaries do not already have handsets, digital and financial literacy training is needed to teach the basics of using a mobile phone, including mobile money.<br>• May include creating customised training materials and refresher training. | Shared |
| **Conduct pilot** | • Conduct a pilot to test everything is functioning correctly.<br>• Given that timelines are often not met, this step is often skipped due to perceived lack of time. This can cause issues later that will require solutions at a larger scale. | Shared |

The goal of this phase is to ensure everyone is trained and operations are prepared for disbursal. Many activities in this phase should begin before registration, so this phase can overlap with Phase 3.

### Validating the registration list

In cases where coordination between the humanitarian organisation and the provider is weak, registration of beneficiaries occurs offline or beneficiary registrations are not tagged by the provider, major issues can occur with the **validity of the registration lists.**

Before disbursements are made, providers should ensure beneficiary information matches the information it needs to form government databases for KYC, and with humanitarian organisation beneficiary lists uploaded to the bulk payments portal. Given that problems uncovered in this process can require teams to locate beneficiaries in the field to verify details, this process needs to begin as soon as possible.

## Digital and financial literacy training

If **digital and financial literacy training** is planned as part of the project, it needs to begin as soon as possible. Providers can assume that training materials they have used in the past may not meet the needs of the humanitarian organisation or be appropriate for the culture or language of FDPs. For these reasons, it is common for the humanitarian organisation to design these materials as they have knowledge of the beneficiary communities and often have staff with training experience. However, the roles and responsibilities for this stage should be communicated during Phase 2 of the process.

This process can also involve beneficiary assessment to measure the effectiveness of communications and the standard that must be met (e.g. 80 per cent of beneficiaries change their PIN without agent assistance). Overall, the amount of specialised knowledge and time it can take to create such materials (especially in multiple languages) and train trainers means the responsible stakeholder will need a significant amount of **preparation time.**

## Piloting

Ideally, everything that is being designed and implemented for the first time should be **piloted.** If the pilot takes place at a later stage, it will be able to test more elements of operational design; however, there will be less time to remedy any problems that are uncovered. Therefore, it is ideal to **run a series of small pilots as operations develop.**

For example, registration operations can be piloted once the distribution site is selected, and then a pilot can sync provider and humanitarian lists after registration to see how efficiently the process works. Training materials can be piloted, as can operational strategies, such as roving agents or liquidity on delivery. Further piloting may be useful before disbursement occurs to test how all the systems work together. Even when schedules are tight, small pilots can make a big difference.





# PHASE 5
# Disbursement

Table 5

**Disbursement phase**

| | Description | Lead partner |
|---|---|---|
| **Schedule payments** | • Dates set for transfers and beneficiaries notified. | Humanitarian |
| **Transfer funds for disbursement** | • Humanitarian organisation deposits funds in provider's bank account. | Humanitarian |
| **Verify beneficiaries** | • As beneficiaries arrive at agent locations to cash-out, their identity needs to be verified to prevent fraud.<br>• This can be done with, for example. photo ID cards, PIN codes or biometrics. | Provider |
| **Ongoing field support** | • As payments are disbursed, operational issues may occur.<br>• To mitigate problems, a call centre and field office can be set up (or scaled) to handle these issues.<br>• Agents should also be trained to support beneficiaries. | Provider |

After the preparation phases of operations, disbursement should be straightforward. The goal of this phase is to deliver the CVA programme as defined by the contract and shared vision of the mobile money provider and humanitarian organisation.

## Schedule payments

Humanitarian organisations will likely consult with local community leaders on the times and locations for disbursements, although they may try to **keep some elements undisclosed for security reasons.** For example, Mercy Corps once conducted a disbursement in DRC that had such high security concerns that disbursement was a surprise to beneficiaries, while Mercy Corps programme staff had their handsets confiscated by management so they would not inadvertently reveal details of the operations.[28] However, such high-security scenarios are not the norm for mobile money CVA.

While some information may need to be kept secret, it is important that all humanitarian and provider staff have the details they need, and that those **details are communicated** effectively to both agents and beneficiaries. In some cases, humanitarian organisations have reported success working directly with master agents. Providers may want to consider putting them in contact if communications can remain clear and streamlined between partners.

28. Mercy Corps (2018). E-Transfer Implementation Guide.

BOX 7

### Examples of biometrics for registration and verification

In Jordan, UNHCR has partnered with IrisGuard to capture iris scans of FDPs who can then withdraw CVA transfers from 230 ATMs equipped with iris readers. This will soon be integrated with a mobile money system. It is also using biometrics for CVA verification in Lebanon.

In Uganda, one provider uses Evolute hardware for biometric SIM card registration, while WFP in Kenya and UNHCR in Zambia are using biometric solutions for CVA. Safaricom's Jitambulishe service in Kenya allows customers to use voice biometrics for verification.

Diamond Fortress has developed software to turn smartphone cameras into fingerprint readers, which can then integrate biometrics into a smartphone app.

### Transfer funds for disbursement

**Transferring funds** should be like any other bulk payments programme. If funds are arriving from abroad, there could be delays in receiving them. Once received, they may have to be moved into master agent or individual agent accounts, so time must be allowed for that, especially if they use other banks and there is not real-time clearing in the country. Overall, except for in Somaliland where the banking system is subject to strict international restrictions, this stage is not reported to be problematic.

### Verify beneficiaries

The receipt of funds by beneficiaries can be a complicated stage because many humanitarian organisations **need each beneficiary to be verified** when they receive their transfer. In cases where an alternate is making the transaction for the beneficiary, or beneficiaries are not carrying a photo ID, this can be challenging for both agents and providers if agents do not follow set protocols. PIN codes help, but they are typically not sufficient to verify the beneficiary receiving the funds.

### Ongoing field support

The last stage is ongoing field support. The **training** discussed in the previous phase needs to **continue over the lifespan of the mobile money service provision.** Subsequent refresher trainings typically need to be done in the field, or by agents, call centres, service centres or a combination of them. What is most important is that this is included in the planning and budgeting process.



Mobile money enabled cash aid delivery:
Operational handbook for Mobile Money Providers

## PHASE 6
# Liquidity management

Table 6

**Liquidity management phase**

| | Description | Lead partner |
|---|---|---|
| **Coordinate with agents** | • Disbursement dates and disbursement values communicated to agents. | Provider |
| **Deliver cash to agents** | • Especially if it is a large CVA programme, there will be higher demand for cash on disbursement days. | Provider |
| **Monitor liquidity** | • Monitor liquidity regularly to ensure agents stay liquid. | Provider |
| **Rebalance agents** | • Agents need a method to replenish their cash quickly and effectively. The less revenues they earn from transactions, the more support and incentive they will need to stay motivated. | Provider |

**Liquidity management is one of the most challenging operational aspects to solve during CVA programmes.** The goal of this phase is to ensure agents have enough cash to provide to beneficiaries when they make a withdrawal. The liquidity management system is designed when the bid is written in Phase 2 and implemented in Phase 5 with the disbursement. However, because it is the **most cited barrier by humanitarian organisations** in CVA disbursal, it is addressed as an additional phase.

This is one area of operation where it is likely that business as usual will not meet humanitarian needs. Even providers with well-functioning liquidity systems **should expect to spend significant time engineering ways for agents to stay liquid during disbursals when the demand for cash is much greater than for e-float, and where humanitarian settings are in logistically complex or hard-to-reach areas.**

Scheduled one-off disbursements and the need for physical cash by beneficiaries, combined with serving often inaccessible or sparsely populated areas are the features that make managing liquidity for agents in CVA programmes particularly unique and challenging.

Mobile money enabled cash aid delivery:
Operational handbook for Mobile Money Providers

## The strategic operations of liquidity management

Any well-functioning liquidity system must be based on **strategically selected agent locations, appropriate customer-to-agent ratios, strong agent training programmes and high levels of commissions and transaction rates,** all of which help to keep an agent motivated. Beyond these prerequisites, there are many different operational models that may be appropriate. Overall, the most likely problem will be that the **demand for cash during disbursals will be greater** than the amount the agent can afford to have available, and probably what they would consider safe to transport and hold at the agent outlet.

This means there is high probability **that the provider will need to become intimately involved in field operations.** Policy solutions, such as increased agent monitoring or requiring them to hold more float, will not address these issues directly. Many providers may suggest **placing more agents in the area** to reduce individual agent demand, but that will likely be problematic for two reasons:

1. Having more agents in the area means that overall customer transactions must grow more quickly to support them, and that can be difficult; and
2. Rebalancing is expensive and having more individual agents making less revenue means all agents will have less ability to incur that cost.

## The benefits of liquidity delivery

Providers may try to reduce the overall cost of liquidity management by **providing rebalancing services to the agents** rather than requiring agents to travel to a rebalance location. Having a centralised liquidity delivery system should be much more efficient as a single person can service multiple agents on a delivery route and collect agent demand data to make the route more efficient.

The Helix Institute of Digital Finance conducted nationally representative surveys of mobile money agents between 2013 and 2016, and found that agents in Pakistan and Bangladesh reported having enough liquidity to serve all customers on an average day, while the leading East African markets (Kenya, Tanzania and Uganda) that generally were not using the technique had agents denying between 6.5 per cent and 16 per cent of median daily transactions.[29]

## Designing a liquidity delivery system

Given that disbursements are typically scheduled, liquidity delivery can ensure agents have enough cash on disbursement days, although there are some challenges with this strategy. Many mobile money markets currently use **liquidity delivery**, including Kenya, Uganda, Chad, Mali and Myanmar, and they are **designed very differently.** Liquidity delivery can be done by the provider, master agent or a third-party specialist company. **Liquidity delivery can be scheduled** (e.g. every Tuesday and Thursday morning) **or it can be on demand** (e.g. the agent has a hotline they can call for a delivery). There are hybrid models, for example, when only the top-performing agents receive on-demand service and other agents must wait for scheduled deliveries or even travel to rebalance themselves.

However, providing **liquidity on delivery is not necessarily a solution.** Managing a system like this is complicated, and it shifts rebalancing costs from the agents to the provider. Even in situations where the liquidity management system could be more efficient through liquidity delivery, it might still result in losses. Liquidity runners (those making the delivery) may have a limit on the amount of cash they can securely carry to agent locations, and if the agents are sufficiently hard to reach, **the economics of delivery may not make sense for the provider.**

29. These numbers have been calculated from country reports published by The Helix Institute of Digital Finance. Some of these reports are still available on their website.



## Subsidies for unsustainable liquidity management

If liquidity management is unsustainable, this needs to be recognised as soon as possible and priced into the cost of the service or another solution needs to be found. If **external subsidies** are needed to make the liquidity management system work, it is also likely that the effective functioning of the mobile money service will not last beyond the CVA programme.

**BOX 8**

### Coordinating with other providers

In cases where multiple CVA distributions are happening in the same area, liquidity management can be a challenge as providers may not know the liquidity levels needed for agents that may serve different providers and/or different humanitarian organisations.

If different providers use the same agents, they are sharing the same pool of cash that the agent holds. If providers are not coordinating, each will see surprisingly volatile cash levels at their agent as other CVA distributions are made through them without their knowledge. This makes it challenging to control agent float levels and therefore the quality of the service they provide.

## Agent trading and loans

It is worth noting that common strategies, like **giving agents the ability to trade with each other,** will not likely have a large impact because agents need to have opposing cash and e-float needs for the system to work. Agent lending can help, but many of the products on the market provide **short-term e-float loans** to agents, but since it is cash that is needed, exchanging the e-float for cash also needs to be solved.

## The need for operational innovation in liquidity management

Liquidity management is one of the most challenging operational aspects to solve. **There are cases when more traditional solutions like liquidity delivery can work, but where it does not, operational innovation will help the systems to function sustainably over the long term, beyond the CVA programme.** Engaging with the humanitarian organisation and exploring a partnership with appropriate levels of resources and expertise can result in a high-performing mobile money system in the long term.

PHASE 7

## Reporting and reconciliation

Table 7

**Reporting and reconciliation**

| | Description | Lead partner |
|---|---|---|
| **Quality assurance** | • The quality of service that beneficiaries are receiving should be carefully monitored. | Shared |
| **Failure resolution** | • Some payments will bounce back, others will sit in a mobile money account untouched. Humanitarian organisations need to track down such issues and resolve them. | Shared |
| **Donor reporting** | • Humanitarians will likely ask providers for an array of indicators, and providers should anticipate this and collect them in the format they are needed. | Humanitarian |

This final phase is similar to Phase 1: it is helpful to be aware of and involved in, but it is primarily led by the humanitarian organisation. The goal is to ensure operational issues are identified and rectified quickly and that all data needed for reporting and analysis is provided.

Both the humanitarian organisation and the provider will need to ensure the standards of service agreed upon in the contract are upheld. Humanitarian organisations are likely to survey beneficiaries and mystery shop agents, while providers can rely on their call centres and service centres in the area, as well as third-party agent monitoring services.

All humanitarian organisations will end the CVA programme by collecting a series of indicators for donor reporting, including who received the funds and any challenges faced. Donors delivering restricted transfers may collect metrics on how beneficiaries used the funds. **Providers should expect data requests on these and other indicators,** and should anticipate this as early as Phase 2 to verify that their systems are set up to capture data in the requested format.





# Conclusion

Learning the basics of CVA programming, considering whether to engage, and designing and executing the necessary operations is not a straightforward undertaking. The first time executing these operations will be a learning experience, but the process gets easier with practice.

UNHCR in Zambia has reported a decrease in the time it is taking to complete the stages of the process, from months to weeks, and weeks to days. This is evidence that organisations are making progress in this **multi-billion-dollar sector, which continues to promise robust growth. Those that advance along the learning curve now will be best positioned in the sector.**

The future is exciting for mobile money CVA programmes. As a new frontier for mobile money, CVA could catalyse a new wave of product development for the sector as a whole. **The benefits of mobile money are well placed to serve CVA needs, and innovation in the coming years will determine how to craft these systems to meet the unique needs of the humanitarian sector and beneficiaries.** This handbook serves as guidance for mobile money providers interested in exploring this growing and promising space.

# Appendix 1:
## Distinguishing characteristics of humanitarian crises

The following are major distinguishing characteristics of humanitarian crises to be aware of:

### Rapid vs. slow onset

This distinction refers to the amount of warning or preparation time given before a crisis occurs. For example, earthquakes are a classic rapid onset, coming without notice, while a common slow onset is drought, which builds over time. OCHA[30] defines a slow onset crisis as one that does not emerge from a single, distinct event but one that emerges gradually over time, often based on a confluence of different events. This does not always equate to more time to prepare as sometimes they are harder to recognise. OCHA have commented that time after time, the international community waits until a slow-onset event reaches the acute phase and then needs be dealt with using the tools created for a rapid-onset disaster. This is both inefficient and ineffective, wasting resources and exacerbating human suffering. Therefore, slow onset crises and later stages of rapid onset crises may provide more preparation time needed to set up mobile money systems, but this is not always the case.

Rapid onset situations are more challenging for cash transfers as an extended period is needed to set up operations (and potentially infrastructure) before CVA can begin. Such situations require extreme pragmatism to deliver assistance quickly, and mobile money may not be an appropriate option at the beginning, unless the crisis occurs in an area with a well-functioning mobile money system already operating and that continues to be operational during the crisis response.

This is rare, so it can be advantageous for mobile money providers to have an instantly deployable product to use until mobile money systems are set up. For example, in Kenya, Safaricom deployed a paper voucher for WFP to distribute immediately, which was redeemable for cash at mobile money agents. This is an excellent interim solution to distribute cash and use the mobile money system (to an extent) while a formal mobile money voucher system is being set up for the long term.

### Internally Displaced Persons (IDPs) vs. refugees

IDPs are forced to leave their homes but remain within the borders of their own country,[31] while refugees cross an international border.[32] Collectively, these groups are known as Forcibly Displaced Persons (FDPs). Globally, UNHCR statistics show[33] that IDPs are more numerous and widespread,[34] with estimates of 40 million IDPs compared to 25.4 million refugees.

This distinction between FDPs has implications for the design of CVA delivery systems. IDPs may already be registered for mobile money, and if not, may have government-issued IDs that make them eligible to do so. IDPs are also less likely to have cultural or linguistic challenges understanding and using a mobile money system. Assisting nationals in need may be considered a domestic priority, which can mean less bureaucracy to deploy services, and may translate more easily into favourable brand recognition in the country.

If people are fleeing due to fear of persecution on the basis of five reasons outlined in the 1951 Refugee Convention, namely race, religion, nationality, membership of a particular social group, or political opinion they may be given refugee status, depending on whether the country they are fleeing to is a signatory to the Convention. While this provides a degree of security, it also presents challenges. The host country determines their status, either through individual Refugee Status Determination or prima facie (for example the application of status to whole groups) and where they can settle, as well as their right to work, to own assets and receive services. Even in situations where they have these rights, their ability to obtain licenses and permissions can be challenging.

Refugees can be prohibited from opening bank accounts, which can make mobile money a more accessible payment mechanism if a viable solution can be found to register refugees for SIM cards and mobile money in the host country. However, there can also be a lack of clarity about refugee legal access to SIM cards and separately to opening mobile money accounts in their own name. For MNOs wanting to provide CVA this should be clarified with the relevant regulators as a preparatory measure.

### Camps vs. integrated living (settlements and urban)

FDPs may live in camps[35] or integrate with non-FDPs (host communities). From a mobile money perspective, camps make some operations easier because CVA beneficiaries are concentrated in a particular area, so activities like training and/or registration can be more efficient. However, camps can also have regulations that can make mobile money operations challenging. Foremost, they can be built in remote locations with poor mobile coverage and supportive infrastructure like roads and electricity.

Additionally, refugees may leave camps, there may be restrictions on working and moving cash within camps, and there is less of a presence of a host community to help support the viability of a mobile money system. When FDPs integrate in local communities, mobile money systems are much less dependent on CVA transfers to generate revenue as the host community also uses the service. Having beneficiaries spread across a larger area can lessen the liquidity management burden on individual agents.

### Emergency vs. stable and protracted displacement situations

When a crisis begins, humanitarian organisations provide an emergency response where the priority is helping people survive by ensuring their basic needs are met. The response can often focus on the most vulnerable people, referred to as Persons with Special Needs (PSNs). A common CVA response will be low-value, regular transfers to a large portion of the FDP population (donor funds permitting) for items like food, water and blankets.

Over time, as the situation stabilises, the crisis response will transition into a stable or protracted displacement situation. It may be that durable solutions such as resettlement, repatriation or integration are found. While some PSNs will continue to receive basic needs transfers, the overall number of these transfers will likely decrease, and other types of transfers will begin, like cash for work, resettlement funds, and livelihoods support to begin small income generating activities. In some cases, humanitarian organisations will continue managing operations, while in other contexts the humanitarian community may leave as the situation stabilises, and the international development community and government take over management.

30. OCHA (2011). https://www.unocha.org/sites/unocha/files/OCHA%20and%20Slow%20Onset%20Emergencies.pdf
31. For a global map of IDP locations in 2018 by country and cause of displacement, see: International Displacement Monitoring Centre. On the Grid: The Global Displacement Landscape 1998–2018.
32. Stateless people and returnees are not accounted for under this definition. These groups also have specific needs that need to be considered, and cash as part of a Voluntary Return programme is often important.
33. UNHCR (2019). Refugee Statistics. See: https://www.unrefugees.org/refugee-facts/statistics/
34. Two-thirds of refugees come from five countries: Syria, Afghanistan, South Sudan, Myanmar and Somalia.
35. "Refugee camp" is a popularly used term which UNHCR defines as "a form of settlement in which refugees or IDPs reside and can receive centralised protection, humanitarian assistance, and other services from host governments and other humanitarian actors." It is generally understood that FDPs have less freedom of movement in camps than in settlements.



Mobile money enabled cash aid delivery:
Operational handbook for Mobile Money Providers

# Appendix 2:
## Potential sources of revenue

### A. Estimating revenue streams

Direct revenues from CVA transfers are just one of many ways to earn returns from CVA disbursement. While CVA revenues provide an important incentive to expand mobile money services, it can generate income beyond the fees paid by humanitarian organisations for CVA. Therefore, the most strategic approach is to use the revenue from CVA distribution and support from humanitarian organisations as a foundation for expansion into new products, geographies or demographics.

#### Small CVA programmes may become more coordinated

While large CVA transfer programmes capture headlines, most CVA programmes offer disbursements in the range of $15 to $50 per month for three to six months for 50 to 2,000 people.[36] This example would roughly amount to $120,000 in CVA disbursements, from which the provider would receive about two per cent from the transfer fee, or $2,400. To generate significant revenues only from CVA transfer fees may simply mean that a provider would need to have a lot of contracts this size.

**This may change soon as donors like ECHO and DFID are interested in humanitarian organisations collaborating to use a single payments mechanism for CVA delivery in each country.** Both INGOs and UN agencies are making progress in this direction, but there are differing opinions regarding the use of a single payments platform, and it is unclear how this would function in the future.

The most recent example of collaboration is the announcement that UN agencies involved with CVA (UNHCR, WFP, UNICEF and OCHA) are committed to using a 'single transfer mechanism' for CVA.[37] While it is unclear when or how this would be implemented, it could mean that small assorted CVA contracts will become less common and large contracts for CVA delivery on a national scale could become the norm.

**The ideal scenario would be to expand beyond CVA revenues and develop more revenue streams and increase margins by adding value to products.**[38]

36. These figures are estimated from expert interviews conducted for the project and case studies published on CVA programmes around the world. They are provided for reference. Note that there are differences in how humanitarian organisations count the beneficiaries receiving transfers. For example, sometimes a single transfer will be delivered to the head of a household for multiple members of the household, and the humanitarian organisation will report the number of beneficiaries, but not that just one transfer was made. This definitional difference helps to understand the volumes and values needed to calculate revenues from transfers.
37. CaLP. (2018). New Common Cash System Announced by WFP, UNHCR, UNICEF and OCHA. See: http://www.cashlearning.org/news-and-events/news-and-events/post/509-statement-new-joint-system-for-cash-assistance-from-wfp-unhcr-unicef-and-ocha-
38. GSMA (2017). Humanitarian Payment Digitisation: Focus on Uganda's Bidi Bidi Refugee Settlement.





#### Managing multiple CVA programmes

In countries with large-scale humanitarian crises, there will be humanitarian organisations with large programmes and humanitarian organisations increasingly collaborating with cash working groups. This presents an opportunity to contract with multiple programmes at once. **Therefore, one way to increase revenues is to garner multiple contracts to increase the value of transactions through the system.** However, the provider should have sufficient resources to navigate the possibility that different humanitarian organisations may have their own SOPs and could potentially work in different areas with separate populations, limiting the benefits of economies of scale.

#### Registering the wider community in the area

Beyond CVA beneficiaries, there are other potential customers of interest for mobile money, including FDPs who do not receive cash assistance and host community members living among FDPs. **These people are potentially more economically active than CVA beneficiaries** (those in most need of assistance) **and can therefore help increase the volumes of transactions made on the system, which not only increases overall revenue, but also helps sustain agents in the area with needed cash-in/cash-out (CICO) transactions.**

Finally, beyond the FDP and local host community, there are likely to be other business opportunities for mobile money to serve the humanitarian and business communities in the area. Using mobile money to also deliver staff salaries and per diems for humanitarian organisations can add revenue to the deal. Evaluating the potential to provide similar services to clinics, schools, government offices and other local businesses in the area are strategic ways to increase the sustainability of revenue streams in the CVA location.

**Regardless of the strategies selected to augment revenue, the concept is to create a long-term competitive advantage, especially in scenarios where significant capital costs were incurred at the beginning.** This will require not only expanding target markets and developing more customised offerings in the short term, but also having staff that consistently monitor the humanitarian response so that new offerings are made as the crisis shifts into a recovery phase, and new sets of development actors become involved meeting distinct needs.

### Other mobile services benefits

Beyond the direct revenues from mobile money there are other benefits to consider, which may or may not be relevant to decisions about expansion or evaluations of success. For mobile network operators, the indirect benefits of mobile money—churn reduction, uplifts in average revenue per user on the GSM business, or savings on airtime distribution—can be significant and help to strengthen the overall business case for mobile money services.[39] While many of these factors are mentioned in association with mobile money, and some are cited as reasons providers have launched mobile money, they generally will not feature in the profit and loss statement of a mobile money team and are much more likely to be benefits attributed to the GSM team. **This means that in certain situations these benefits could be leveraged in decisions to extend base stations and are positive to the overall bottom line of the country operation.**

The main benefits mobile money provides to traditional mobile services are:

1. **Lower airtime distribution costs:** This is the most common benefit as it only requires people in the area to buy airtime through mobile money. Providers reported this happening with beneficiaries after several months of transfers in Uganda, and GSMA research in Nyarugusu refugee camp in Tanzania observed significant mobile use by refugees.[40] However, the overall amount of airtime may or may not be significant, depending on the economic situation of the beneficiaries and surrounding host community.
2. **Reduced churn:** Churn reduction is relevant when more than one provider already has a competitive position in the area. CGAP estimates that over 20 per cent of voice customers need to be using mobile money for significant churn reduction,[41] which also implies that the provider must reach significant penetration with beneficiaries and their contacts.
3. **Increased ARPU:** Increased ARPU assumes that beneficiaries are already GSM customers and the increased revenue earned from mobile money will be additive. That could certainly hold true, however, the effect will likely be balanced by new customers who may have a lower ARPU than the country average. **This would decrease ARPU on a national scale, but for providers targeting network utilisation, it would increase ARPM.**

Any or all of these could be significant benefits associated with a CVA programme. However, it is important to understand how and when they are relevant.

### Broader mobile related revenues

PAYG solar energy products (including lighting, phone charging, radios and irrigation) are in many developing country markets and can increase mobile money transaction volumes. There are also other services that mobile can improve access to, such as education and healthcare. **Offering a bundle of useful products and services for beneficiaries can increase the competitiveness of a CVA bid while generating more revenue from the provision of the service.**

39. GSMA (2016). State of the Industry Report on Mobile Money 2015.
40. GSMA (2017). Mobile is a Lifeline: Research from Nyarugusu Refugee Camp, Tanzania.
41. CGAP (2011). Five Business Case Insights on Mobile Money.





# Appendix 3:
## Innovation ideas

| Innovation/ customisation | Description |
|---|---|
| **Customised operations** | |
| **Biometrics** | Humanitarian organisations need to ensure they are registering the people they intend to, they are making distributions to them and not making duplicate payments. These registration and verification processes are increasingly being done with biometrics (e.g. fingerprints and iris scans). Payment systems that can include biometrics where they are not currently available, or integrate with biometric information where they have already been captured, will have distinct advantages. |
| **Agent service quality guarantees** | It is common for humanitarian organisations to want agents to perform services they do not typically provide or to have them located closer than what is generally provided in rural or hard-to-reach areas. A premium service offering that ensures agent proximity, liquidity and high standards of customer support could be very valuable. |
| **Deals on handsets and SIM cards** | In cases where beneficiaries do not yet have access to handsets and/or SIM cards, bulk pricing or discounted pricing could be offered in exchange for exclusive contracts. |
| **Improved bulk payment portals (customised for clients)** | Ideally, customised solutions for humanitarian organisations allow bulk registration uploads, conform to their internal SOPs for payments approval and disbursal, and allow distribution to beneficiaries regardless of their provider (interoperability). |
| **Transfer tracking and reporting dashboards** | Humanitarians want a zero error rate and the ability to track every payment and investigate any problem that may arise. A user-friendly dashboard that allows this, and then produces pre-formatted reports for them to send to their donors would be an attractive offering. |
| **Beneficiary financial habits** | How, when and where the CVA transfer is being used, and the impact it is having on the life of the beneficiary, is all valuable information and often the reason vouchers are used. A system that could provide intelligence on how cash is being used would add value. |
| **Integrated financial education materials** | Beneficiary training needs to happen at the beginning of the CVA programme, but it cannot stop there as not all topics should be covered at once, and users will require support for the length of the operation. Cost-effective ways to identify beneficiaries struggling with the systems and provide them with the support they need, as well as more general financial education support, would be valuable. |

| Innovation/ customisation | Description |
|---|---|
| **Product innovation** | |
| **Merchant payments** | Merchant payments would help track beneficiary expenditures, reduce liquidity management issues, increase transactions per user and therefore enable lower prices and/or higher margins. In Uganda, providers are experimenting with smartphone-based POS devices that can push transactions over USSD to a customer feature phone. In Somaliland, merchant payments are free, which has encouraged popular use. |
| **Restricted usage products** | Voucher specialists and UN agencies have created their own voucher systems and providers can, too. They can be delivered to a mobile money account or via SMS, and redeemed for cash or pre-defined goods. This can be a strong offering when beneficiary ID (e.g. KYC) is a problem. Products like these have been developed by MTN in Cameroon and Safaricom in Kenya. |
| **Offline-to-online integrated functionality** | One of the stipulations of a CVA programme can be that it must be available to all beneficiaries. When some live in areas beyond mobile coverage, products with integrated offline functionality will help. Offline communication between devices can work through bluetooth, radio-frequency identification (RFID), Near Field Communication (NFC) or Quick Response (QR) codes. The agent/merchant device (which can be a smartphone) needs to be regularly synced to update the central server to update transaction data. |
| **Rapid response scratch cards** | In situations where infrastructure, regulations or other issues prevent rapid implementation of digital solutions, interim solutions like scratchcards can be an option. Safaricom in Kenya offers scratch cards for airtime that can be redeemed at agents for cash. |
| **Evolving product suites** | Products and services that build on interim solutions and evolve as the dynamics of a crisis or situations of beneficiaries shift, would be a welcome offering. For example, scratch cards in the first phase could transition into an online/offline digital voucher system as infrastructure is built. This could then evolve into a regular mobile mobile account and, finally, mobile credit as transaction histories enable credit scoring. |
| **PAYG products** | Pay-as-you-go (PAYG) products work by inserting a SIM card into a product like a solar light. The product can then be delivered for a small down payment, and turned on or off remotely as beneficiaries make small regular payments towards ownership. In Kakuma refugee camp in Kenya, energy service providers are deploying PAYG energy solutions. |
| **Bulk payments** | If CVA is able to facilitate entrance into an area, there are likely other payment needs that can be met, such as salaries for teachers, health workers and local government officials, as well as salaries for NGO workers. |
| **Auxiliary product development** | |
| **mSurveys** | Humanitarian organisations need to continuously collect information on beneficiary movements and needs. Micro-surveys that collect information and GPS tracking of handsets could help with this. |
| **mHealth** | Health services are in great need in emergencies. Helping to answer questions and distributing information during crises could be very useful. |
| **mEducation** | A large portion of refugees are children (Jordan: 48 per cent, Uganda: 61 per cent). Helping children to continue learning during crises is a necessity. |
| **mAgri** | Many IDPs, such as those in Somaliland, depend on smallholder farming for their livelihoods, and in Uganda, some refugees have formed partnerships with Ugandans to farm. Mobile services can be leveraged to support farmers' access to information on markets, weather and soil in their new locations, as well as other extension services. |
| **Family reconnections** | Helping to connect people who are looking for loved ones, and giving them cost-effective ways to communicate and support each other, is an essential service in a crisis. Mobile services have been leveraged to facilitate this process. For initial work on this, see the GSMA case study on REFUNITE. |



gsma.com

**GSMA LTD**
Armour Yards, Suite 150
165 Ottley Drive
Atlanta
GA 30324
USA
www.gsma.com