



HPG Commissioned Report

Electronic transfers in humanitarian assistance and uptake of financial services: a synthesis of ELAN case studies

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About the author

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Executive summary

Cash transfers are increasingly provided in humanitarian responses as a substitute or complement to in-kind aid. At the same time, mobile money – the use of a mobile phone to access financial services – is rapidly expanding globally, offering a secure and efficient way to transfer funds. Several humanitarian agencies are capitalising on this expansion to deliver cash transfers through mobile money, which can create opportunities to connect recipients with digital financial services more broadly.

The Electronic Cash Transfer Learning Action Network (ELAN) undertook case studies on humanitarian electronic transfer ('e-transfer') projects in Ethiopia, Zimbabwe and Bangladesh. The projects delivered cash transfers via mobile money. Each case study examines the extent to which recipients used digital financial services (e.g. money transfers, savings, credit, purchases) through mobile money; the factors that affected recipients' uptake of these financial services; and considerations for future humanitarian programmes aiming to increase the use of digital financial services among recipients. The Humanitarian Policy Group (HPG) at ODI produced this summary and analysis of ELAN's research.

Findings

Exposure to mobile money through humanitarian projects, even when combined with training, was not sufficient to enable e-transfer recipients to independently conduct a mobile money transaction after the project. Across the three case studies, only 10% of recipients could name all of the steps involved in cashing out a mobile money transfer. Project participants increased their use of mobile money to make money transfers in all three settings, but their use of other digital financial services, such as savings and buying airtime, was more varied.

In Ethiopia, Mercy Corps encouraged the expansion of mobile money agents into the project area, based on its relationship with the financial services provider. Project participants had very little previous experience with mobile phones, let alone mobile money. Mercy

Corps asked participants to keep a minimum balance in their accounts and offered to subsidise the purchase of phones. Only 10% of participants owned phones prior to the project, and nearly all bought one. Three-quarters of survey participants purchased mobile phone credit with their accounts, and 17% sent money to another person. Two months after the final cash transfer, all of the participants were still saving a small amount of money in their accounts, but few used them to make deposits, receive money or pay for goods and services.

Project participants in Zimbabwe were more familiar with mobile money; one-fifth had used it prior to the project. Participants increased their use of mobile money person-to-person transfers after the project significantly, from 20% to 76%. The purchase of airtime and goods increased more modestly. Purchasing goods through mobile money was often driven more by mobile money agents' lack of liquidity than by choice. No e-transfer recipient reported saving through mobile money before the project, and 25% of people reported doing so after it.

In Bangladesh, participants did not use mobile money widely before or after the project. Although money transfers did increase after the project, e-transfer recipients were unaware of the range of mobile money products available. People continued with their established, informal savings approaches (livestock, saving at home, using microfinance institutions), which they found less confusing than mobile money, more convenient and in some cases more lucrative.

Barriers to use and uptake of digital financial services

A prominent barrier to uptake of digital financial services across all three studies was that most services were not relevant enough to the people the projects reached, beyond cashing out the e-transfer. Participants tended to withdraw the full amount to meet pressing needs, rather than leaving a balance as savings or making purchases through mobile money. Recipients had little or no money to save, and even

where they did they tended to use more accessible and informal mechanisms (Ethiopia was an exception, but Mercy Corps had asked participants to save a minimum balance in their accounts).

Understanding and mastering mobile money was the second common barrier. Simple exposure through the projects was not sufficient to enable people previously unfamiliar with mobile money to conduct mobile money transactions autonomously. Lack of understanding did not prevent recipients from withdrawing their e-transfers, but it did increase reliance on agents and deterred people from using other digital financial services. In Ethiopia, people who had difficulty with their Personal Identification Numbers (PINs) were 57% less likely to consider using their accounts in the future.

Enabling factors

Several factors enabled people to cash out their transfers during the project and encouraged the continued use of mobile money by some. In all cases, the implementing NGOs worked with mobile money providers to ensure technical support and enable people to access the e-transfers. Most projects provided the transfers in at least three instalments, which increased exposure to mobile money. Trust was high in service providers and agents. In Ethiopia and Zimbabwe, mobile money service providers were amenable to expanding their services and offering training to participants, but in Bangladesh the business case was less attractive.

Conclusion and recommendations

The case studies show that humanitarian cash transfer programmes can increase exposure to mobile money but do not automatically lead to uptake of mobile money financial services, or increased digital literacy and financial inclusion. The provision of humanitarian e-transfers, even when combined with training, was not sufficient to enable the vast majority of participants to conduct mobile money transactions independently.

E-transfer programmes can be designed to encourage the use of digital financial services, for instance by encouraging the expansion of mobile money agents into project areas, subsidising phones and providing more personalised and intensive training. Even if these

steps are taken, however, a humanitarian project is unlikely to lead to the sustained use of digital financial services if recipients prefer informal financial services that are more accessible or profitable.

Encouraging uptake of digital financial services requires resources. A disaster or crisis may not be the most suitable moment to invest in and oblige recipients to attend extensive training, and other delivery channels may be more appropriate. At other times, high demand for financial services or longer-term cash transfer programmes may make such investments worthwhile. Humanitarian organisations that do not have relevant internal capacity may consider partnering with development organisations that do. Even when increasing access to digital financial services is not an appropriate goal or a priority, aid agencies still need to be able to use digital delivery systems where they are the most efficient, accessible and transparent way to deliver humanitarian cash transfers.

The following recommendations for humanitarian e-transfer programmes using mobile money emerged from the case studies:

- Recognise that promoting digital literacy among people new to mobile technology requires continued training and opportunities to practice, which may not be possible or a priority in short-term humanitarian programmes.
- Assess demand for digital financial services (e.g. money transfers, savings) before investing in activities to improve uptake, and recognise that recipients may prefer to continue using other financial services that they consider more relevant and accessible.
- Ensure that recipients unfamiliar with mobile technologies have adequate support to cash out their transfers during the project, including dedicated staff and helpdesks.
- Monitor mobile money agents' liquidity to ensure that lack of cash does not significantly affect programme quality, choices and participants' trust in mobile money.
- Consider ways to help people purchase mobile phones, such as through loans, payment plans and subsidies.
- Assess and mitigate gender-specific constraints, such as women's access to phones and mobile money agents.

1 Introduction

Cash transfers are often an appropriate way of assisting people affected by disasters and crises. Although cash can be transferred physically, delivering money digitally can offer advantages over manual payments, including increased security, reduced costs and improved traceability and transparency (World Bank Group et al., 2014). Electronic transfers (e-transfers) may also introduce people to financial services for saving and transferring money, paying for goods and obtaining credit and insurance (Krishnan, 2015). The High Level Panel on Humanitarian Cash Transfers recommended that, where possible, humanitarian cash transfers should be delivered digitally and in a manner that furthers financial inclusion (High Level Panel on Humanitarian Cash Transfers, 2015).

One of the key challenges to that aspiration is that humanitarian assistance is concentrated in fragile settings where digital financial infrastructure is often nascent or non-existent. Compared to salaries paid by governments and transfers from social protection programmes, humanitarian programmes are also much more short-term, with participants often receiving payments only once or a few times. Humanitarian cash transfer programmes are designed and implemented by agencies with varying levels of experience and expertise in engaging with financial services. Connecting people with financial services is not a common goal of emergency cash programmes, which tend to have humanitarian objectives, such as meeting basic needs, protecting livelihoods and increasing access to food and shelter. As such, while linking people with financial services may be a desirable outcome, it is rarely one that is specifically intended or monitored, and evidence on the link between humanitarian e-transfers and financial inclusion is limited.

In order to help narrow this evidence gap, the Electronic Cash Transfer Learning Action Network (ELAN) undertook three case studies on connecting emergency electronic transfer recipients with additional financial services. The case studies examine short-term cash transfer projects in Bangladesh, Ethiopia and Zimbabwe. They explore whether and in what circumstances cash transfers delivered through mobile

money in a humanitarian programme can promote the uptake and use of digital financial services.

The main research questions are:

- To what extent do e-transfer programmes encourage the adoption of digital financial services among cash transfer recipients?
- What are the key barriers and enabling factors that influence the uptake and use of digital financial services among recipients?
- What measures can be implemented in a humanitarian e-transfer programme to overcome the barriers to achieving uptake and use?

1.1 Methodology and structure

The case studies sought to provide a snapshot of recipients' use of mobile money and their perceptions of the future use of these services. Each case study methodology varied, but all involved a mix of qualitative and quantitative approaches. In all three countries, focus group discussions were conducted with recipients, alongside key informant interviews with the main implementing non-governmental organisation (NGO), its partners and service providers. Surveys were conducted with 237 participant households in Ethiopia and 315 in Zimbabwe. In Bangladesh, 50 households (25 each in two project locations) were surveyed. Given the limited number of respondents, the results should not be considered representative.

In the Somali region of Ethiopia, surveys took place between the second and third (final) transfer. As a result, there was limited time to observe changes in people's access to financial services. Phone records of the 237 survey respondents were analysed after the final transfer. In Bangladesh, data was collected three months after the final transfer for recipients in Cox's Bazar, and three weeks afterwards for those in Satkhira. In Zimbabwe, data collection was done 12 months after the final transfer.¹

1 Further details of the methodologies are outlined in the individual case study reports.

This summary uses the terms ‘electronic transfers’, ‘digital transfers’ and ‘e-transfers’ interchangeably to refer to the digital transfer of money from an implementing agency to a project participant. E-transfers provide access to cash, goods and services through mobile devices and cards (e.g. prepaid, ATM, credit or debit cards). The term ‘cash transfer’ refers to the distribution of money to people in an assistance programme, whether digitally or through other means. ‘Mobile money’ refers to a service in which a mobile phone is used to access financial

services (GSMA, 2010). Mobile money often includes the ability to make payments, transfer money or access insurance, credit or savings products through a mobile phone. This report refers to these products as ‘digital financial services’. ‘Digital literacy’ refers to the ability to execute mobile money transactions independently.

The next section outlines the findings from each case study. The final section highlights common themes and offers conclusions.

2 Case study findings: Ethiopia, Zimbabwe and Bangladesh

All three case studies looked at humanitarian projects that provided electronic transfers via mobile money. The Bangladesh and Zimbabwe projects had no financial inclusion aims. In contrast, the Ethiopia project deliberately sought to link people with digital financial services. This section explores the research findings. For each case study, it provides an overview of financial services at the country level and considers the aims of the e-transfer projects. How recipients used mobile money before and after each project is analysed, as well as factors that enabled or hindered their uptake.

2.1 Ethiopia

2.1.1 Financial services and mobile money: national overview

Only 22% of adults in Ethiopia have access to a financial account (the Sub-Saharan Africa average is 34%).² The sole mobile telecoms service provider is the government-owned Ethiopia Telecommunications Corporation (ETC). To open a mobile money account, an ETC SIM card must be purchased (costing \$0.70), which requires visiting an ETC service centre. These centres are normally only present in larger towns. Prospective clients then apply for an account with the bank or microfinance institution (e.g. Somali Micro Finance Institution, Lion International Bank) offering mobile money (e.g. HelloCash, M-Birr). Both steps require a national identity card and a personal photo.

With tight regulation, limited network coverage and multiple steps to opening accounts, mobile money in Ethiopia has developed slowly. In 2014, only 3% of adults in Ethiopia had mobile money accounts (Demirguc-Kunt et al., 2014), though more recent data suggests significant growth in certain areas, with HelloCash reportedly reaching 500,000 customers in July 2016 (Telecompaper, 2016).³

2.1.2 The emergency e-transfer project

The Pastoralist Areas Resilience Improvement through Market Expansion (PRIME) project, led by Mercy Corps and funded by the US Agency for International Development (USAID), is a five-year project aiming to increase resilience among pastoralist communities. In response to drought in 2014–15, Mercy Corps expanded PRIME activities to include emergency cash transfers delivered by HelloCash mobile money to 2,067 households in Sitti in Somali region. The unconditional cash transfers sought to protect livelihood assets and increase beneficiaries' resilience to shocks. Participants received three cash transfers of \$45 each over three months. PRIME was the first use of mobile money to deliver humanitarian cash transfers in Somali region.

The project also aimed to increase access to financial services. Mobile phone-based bank accounts for participants were opened with Somali Microfinance Institution (SMFI), one of three HelloCash providers in Ethiopia. To promote familiarity with bank accounts and encourage saving, Mercy Corps asked participants to maintain an account balance of at least \$4.50. For those wanting to purchase a phone, the project subsidised half of the cost, and \$4 was deducted from each transfer to cover the balance.

No SMFI branches or HelloCash agents were present in the targeted communities prior to the emergency project, but SMFI established new agents and branches to facilitate the cash transfers. SMFI's willingness to expand its coverage was undoubtedly influenced by its relationship with Mercy Corps. Since 2012, Mercy Corps has supported SMFI's roll-out of HelloCash through business plan development, strategy development and advocacy on mobile money regulations. For many of the HelloCash agents established in the project area, the PRIME participants were their first clients.

Mercy Corps and SMFI took several steps to help ensure smooth access to the mobile money account:

2 World Bank Findex data 2014, worldbank.org.

3 HelloCash is the largest mobile money service in Ethiopia.

- Mercy Corps worked with community leaders to obtain the identity documents necessary to register SIM cards and obtain accounts; nearly all (99%) of participants lacked formal identification documents.
- Mercy Corps and SMFI held joint full-day training sessions in each village on financial literacy and HelloCash.
- Registration events were held where ETC and SMFI agents used smartphones to take photos of participants and their ID documents, eliminating the need for paper copies.

2.1.3 Financial behaviour before the project

The PRIME project targeted pastoralist communities with very limited access to financial services. A survey of financial behaviour before the project found that people almost exclusively relied on informal mechanisms for saving, transferring money and taking out loans (see Table 1). Mobile money only became available in the area as a result of the project, and was entirely new to many recipients. One focus group participant stated that ‘now we know there is money inside the phone, coming from the air ... but it seemed crazy at first’. Even mobile phones were new to some. One elderly woman nearly put her telephone in the fire after being instructed to charge it (the Somali word for ‘charge’ has the literal meaning ‘put in the fire’).

2.1.4 Financial behaviour during and after the project

Shortly after the emergency project ended, participants were using HelloCash to store money, and many had used other HelloCash services. Immediately following the final transfer, 43% of participants had a balance above the suggested amount of \$4.50. Two months

later, all participants still had some money in the account, although the average balance had fallen to \$2.28. The requirement (or strong suggestion) to save money undoubtedly was influential, but people in focus group discussions also expressed interest in saving due to the security and convenience offered by the HelloCash account.

In addition to storing value on their account, some project participants used other digital financial services. Three-quarters of survey participants purchased mobile phone credit, and 17% sent money to someone else. Few participants used HelloCash to make deposits, receive money or pay for goods or services. There were no notable differences between men and women. Most (73%) planned to continue using their HelloCash accounts in the future.

Nearly all project participants purchased a phone subsidised by Mercy Corps, indicating a high demand for access to mobile phones. Prior to the project, only 10% had access to a personal phone, and 37% had access to a phone in their household.

2.1.5 Barriers to use and uptake of digital financial services

The introduction of mobile money through the emergency transfers led to the use of other services during the lifecycle of the project and two months later. However, when people were asked how they would like to receive money from the project, the surveys found that 41% preferred mobile money, 36% physical cash without a bank account and 16% cash through an SMFI account. On balance, most people wanted to receive physical cash.

Table 1: Financial behaviour of e-transfer recipients before the project: Ethiopia

Financial service	Formal	Informal
Saving	Only 2% of participants had savings through formal channels	45% saved by keeping cash at home, keeping cash with local traders or purchasing property, jewellery and livestock
Money transfer	6% used banks and formal remittance agencies to transfer money	18% used informal money transfer services (e.g. bus/truck drivers, informal remittance agents, friends and relatives, carrying the money)
Loan	Less than 1% had loans through a formal financial institution	47% borrowed through trade associations, local money lenders and traders and family and friends

Source: Mercy Corps household survey.

Several factors impeded the greater use of mobile money. The main challenge cited by participants was that they prioritised meeting pressing household expenses over saving, buying airtime or using other digital financial services. This is not surprising given that the transfer had been provided to protect livelihoods and food security at a difficult time. Households that purchased more airtime had higher household dietary diversity index (HDDI) scores (meaning that they were eating a wider variety of foods, suggesting that they were better-off).

Digital literacy was another barrier. The most frequently cited challenge in using HelloCash (encountered by 61% of respondents) was problems using the technology. Only 3% of survey respondents were able to state any of the steps to cashing-out (the process of withdrawing cash from a mobile money account). Several group interview participants said that it took two transfers before they became comfortable enough with the mobile phones to answer incoming calls, and some were unable to make calls without assistance. Using a phone to conduct mobile money transactions therefore represented a huge leap for many. While during group discussions women said that they were less familiar or comfortable with the transfer mechanism than men, rates of digital literacy in survey responses were similar between women and men. Gender did not appear to be a major factor in the ability to use mobile money.

Over half of respondents encountered problems with PIN numbers, and participants relied heavily on agents to enter PINs and complete transactions. SIM cards were blocked if a PIN code was repeatedly entered incorrectly, and reactivation required going to an ETC branch office located up to 30km away. The cost of dealing with blocked PINs discouraged the use of mobile money products. People who had difficulty with their PINs were 87% less likely to prefer mobile transfers over physical cash, and 57% less likely to consider using their accounts in the future.

After digital literacy the most frequent problem was network outages (encountered by 55% of survey respondents). Outages often necessitated multiple visits to an agent to complete a transaction. In extreme cases, delivery of the money may be delayed by up to three days. SMFI executives cited network weaknesses as a primary challenge to expanding HelloCash. Participants who experienced network problems were 60% less likely to continue using their accounts than those who did not.

Knowledge of HelloCash products varied. All participants kept the suggested minimum balance during the programme and 75% purchased airtime, indicating that they were aware that the HelloCash account could be used for these purposes. However, people also struggled to describe their account's range of products and services. Half of survey respondents could list no HelloCash products. HelloCash fees, however, were not a barrier. Only 1% of survey respondents mentioned 'service charges' as a disincentive to using HelloCash, and fees were not raised as a disincentive in group discussions.

2.1.6 Enabling factors

The main enabling factors in the successful use of mobile money during the project were trust in agents, training and the perceived utility of products. Agents were local community members and trust in them was very high. This confidence was critical because participants relied on them to conduct transactions. Participants also had faith in SMFI. Survey respondents who cashed out their entire transfer (other than the minimum \$4.50) were asked why, but no respondents cited 'lack of trust in SMFI' as a factor.

Training increased awareness of digital financial services and a preference for receiving transfers through mobile money rather than manually. However, the use of services by people who received personalised training did not differ notably from those who did not. Similarly, while people who used informal financial tools before the transfer generally had a better understanding of the services offered by HelloCash, they did not make more use of them during the project.

It is reasonable to expect that people who had access to phones prior to the project had higher levels of digital literacy. While a stronger grasp of the HelloCash system could encourage the use of other digital financial services, the case study findings do not strongly support this hypothesis. Respondents with access to a household phone did make 1.4 more airtime top-ups than participants without one, but their use of other services was similar. The use of mobile money by respondents with a personal mobile phone prior to the project did not differ from those who did not own their own phone beforehand. One possible explanation is that nearly all participants bought phones during the project, and that digital literacy was quite low across the board. Participants who had access to either a personal or household

phone were happier with the e-transfers than those who lacked access prior to the project.

Project design and implementation clearly influenced the results:

- The delivery of mobile money via three transfers increased interaction with mobile money compared to delivering a single cash transfer.
- Previous support from Mercy Corps to SMFI to adopt and expand HelloCash provided an incentive for SMFI to expand services to target communities.
- Nearly all participants lacked the formal identification documents required to open accounts; Mercy Corps worked with local leaders to obtain them.
- Mercy Corps encouraged the purchase of mobile phones through a subsidy and payment plan, which may have increased familiarity with mobile technology.
- Mercy Corps vetted and selected HelloCash agents that were trusted by community members.
- Mercy Corps worked with ECT and SMFI agents to register SIM cards and accounts in villages.

Mercy Corps invested considerable time and resources in expanding SMFI/HelloCash services. It would have been logistically easier and potentially cheaper to deliver money in other ways. However, Mercy Corps prioritised the potential link to mobile services as part of its broader objectives. It is too early to know if people will continue to use the services, although the presence of savings two months after the project, the purchase of airtime through mobile money and the intention of most participants to use services in the future suggest that the project may have played a role in increasing access to financial services. The very fact that the project subsidised phones and introduced people to mobile money in a context where it was entirely new could have benefits that are not yet apparent.

2.2 Zimbabwe

2.2.1 Financial services and mobile money: national overview

Mobile money has rapidly changed the financial services landscape in Zimbabwe. In 2014, there were 3.2 million active mobile money subscribers. This represents 22% of adults in Zimbabwe, which is double the average in Sub-Saharan Africa. By contrast, 17% of adults in Zimbabwe had accounts at

formal institutions in 2014.⁴ People also use informal mechanisms for savings, credit and payments services, particularly in rural areas. The growth of mobile money has been facilitated by a high rate of mobile phone penetration. Nearly 85% of adults subscribe to mobile services (POTRAZ, 2016).

Zimbabwe's three mobile money service providers offer a variety of products, including bill payment (e.g. utilities, school fees), money transfers, payment collection, merchant payments and savings. The largest provider, Econet, accounts for nearly 98% of active mobile money subscriptions (POTRAZ, 2016). Mobile money account registration requirements are less restrictive than for opening a bank account.

The government views mobile financial services as an entry point for increasing financial inclusion in rural areas (Reserve Bank of Zimbabwe, 2016b). However, efforts to expand financial services have faced an uphill battle because consumer trust in them has been eroded by financial crises over the last decade. Hyperinflation in 2008 led to the adoption of the US dollar as the country's main currency. During this period of dollarisation many lost savings and pensions held in formal financial institutions. A liquidity crisis in 2016 again caused many Zimbabweans to turn away from formal financial institutions. US dollar deposits in the banking system fell from 49% to 6% between 2009 and 2016 (Exotix, 2016). People have resorted to barter in rural areas due to a lack of hard currency (FEWS NET, 2016). However, the liquidity crisis has also provided an opening for digital alternatives to cash. Between January and July 2016, electronic payments increased from \$4.1 billion to \$5.5bn (Reserve Bank of Zimbabwe, 2016a).

2.2.2 The emergency e-transfer project

Save the Children Zimbabwe implemented the USAID-funded Emergency Food Security Cash for Training/Work Project (EFSP) between October 2014 and July 2015 to support the food security of 6,500 households in Binga district. Households received six monthly cash transfers of \$28. The money was delivered through EcoCash, a service provided by mobile network operator Econet. The project had no specific intention to promote access to additional financial services.

Mobile money was chosen because it incurred minimal delivery costs, ensured rapid delivery and traceability,

4 World Bank Index data 2014, worldbank.org.

Table 2: Financial behaviour of e-transfer recipients before the project: Zimbabwe

Financial service	Formal	Informal
Saving	No savings through banks or mobile money	87% saving at home, 43% accumulating livestock, 18% storing food grain
Money transfer	9% used mobile money (own account) and 11% (without own account), 2% used formal remittance companies	Money mainly sent through friends and relatives (81%) and transport drivers (55%)
Loan	No loans from formal financial institutions	Almost all survey respondents borrowed from family (96%) or neighbours (83%)

Source: Save the Children household survey.

was low-risk and offered convenience for recipients. Purchasing phones for recipients was ruled out because of concerns that government officials might assume that the organisation was disseminating political propaganda messages. Instead, the project expected that people without phones would borrow a handset to conduct the cash-out transaction. Save the Children purchased SIM cards to ensure that intended recipients were registered as account owners (many people in Zimbabwe, particularly women, use mobile phone accounts registered in someone else's name).

Econet required a copy of an identity card, a photo and proof of residence (in the form of a letter from the village head). Only 15 programme participants lacked national identity documents, but the proof of residency requirement proved problematic. After Econet rejected a proposal to provide one letter per village rather than per recipient, Save the Children compiled individual proof of residence letters, copies of national IDs and photos for every recipient. Econet and Save the Children provided training and technical support in various ways:

- Presentations were delivered by EcoCash and Save the Children to large groups (i.e. 100 people) on the fundamentals of mobile money (e.g. the cash-out process, account safety measures) and information on accessing support from agents and Save the Children.
- Account registration events were held by Econet brand ambassadors and agents, who often offered one-on-one help with resetting PINs and information on EcoCash products.
- Help desks were established at disbursement points manned by Econet brand ambassadors, Save the Children staff and local leaders.

2.2.3 Financial behaviour before the project

Participants largely used informal financial services (see Table 2). EFSP project participants had some experience with mobile money prior to the project. One-fifth of survey respondents had used mobile money transfers before EFSP. A quarter of survey respondents had heard of mobile money prior to the project, and 11% had their own mobile money account. Eight percent had used mobile money to pay for goods or services, and 9% reported using the service to purchase airtime. No survey respondents reported using mobile money accounts for savings prior to the project.

2.2.4 Financial behaviour after the project

After the project there was a substantial increase (from 20% to 76%) in the number of people conducting money transfers through EcoCash. Focus group participants indicated that they primarily received money transfers, since they did not have extra money to send to others. They said that mobile money for transfers was more secure and convenient than sending money with friends, family or transport drivers.

The percentage of people using mobile money to purchase airtime and goods increased from 9% to 23% (airtime) and 8% to 26% (goods). However, using mobile money to make purchases was often driven by Econet agents' lack of cash. During the project, 35% of participants faced problems fully cashing out their e-transfer because agents lacked cash, and 40% reported keeping some money in their mobile wallet because of liquidity problems. At the time of the research (one year later), several focus group participants were using their mobile money accounts to buy food, again because of limited liquidity. Some agents, who were also shop-owners, obliged people to purchase groceries instead of disbursing cash. Some focus group participants with small businesses were accepting mobile money as payment.

7 Interview with an international humanitarian worker, 7 December 2016.

Nearly all survey respondents (95%) reported cashing out the full e-transfer, rather than leaving a balance as savings, because they needed money for household expenditures. A minority of respondents (13%) did so because they did not understand how the account worked, or that it was possible to keep money in it.

While people typically withdrew all of the e-transfer, saving via mobile money increased after the project (27% reporting saving). Most of the focus group discussion participants saw security benefits to saving with mobile money, but many still preferred to keep cash at home because their priority was quick access to cash amidst concerns about liquidity.

2.2.5 Barriers to use and uptake of digital financial services

There are several obstacles to using digital financial services. The first is that people have little money for saving, sending and purchasing airtime. Most did not retain mobile money balances from the cash transfer because they needed the money for pressing needs. Digital literacy amongst participants remained low (43% could not name any steps in the cash-out process), though this was not a barrier to cashing out the transfer, with only 9% experiencing problems using their PIN and 7% reporting problems 'with the technology'. Participants employed a range of tactics to deal with limited familiarity with mobile money transactions, including asking for assistance from Save the Children and EcoCash agents. However, it is not known whether the low level of digital literacy influenced the use of the financial services after the project closed. Finally, the fee structure of EcoCash bulk transfers is such that a fee is paid each time money is withdrawn. Concerns about fees for cashing out multiple times may have encouraged people to withdraw the transfer all at once and discouraged the use of additional fee-dependent services provided by EcoCash. The costs (in time and transport) of travelling to EcoCash agents may also have discouraged the use of mobile money; more than half of survey respondents spent an hour or more travelling to an agent.

2.2.6 Enabling factors

Several factors enabled people to cash out their transfers during the project and encouraged the continued use of mobile money by some.

- Alignment of Econet's business strategy with project objectives: Econet was interested in expanding its

presence in areas with low mobile money account registration, and as a result was open to investing in more staff and increasing its agent network for the project.

- Support from Econet and Save the Children: training, text message support and help desks ensured that people could reset PINs and cash-out.
- Awareness of products: 76% of respondents were aware that they could receive money through EcoCash. However, less than half knew that they could pay for goods, services and airtime, and only 2% were aware of savings products.
- Satisfaction in the provider: 92% of respondents were 'willing' or 'very willing' to use EcoCash in the future.
- Preference for mobile money: 62% would prefer to receive any future transfers via mobile money rather than physical cash (safety and speed were the most common reasons noted); those who preferred cash mainly cited ease of access, speed and convenience.
- Number of transfers: the provision of six transfers through the project provided multiple opportunities for people to experience services and develop strategies to cash out.
- Phone ownership: individual phone ownership doubled after the project. Owning a phone increases convenience, privacy and control over one's account, which could encourage the use of mobile money in the future.
- Several barriers that could discourage the use of mobile money financial services in the context of humanitarian projects did not emerge in the EFSP project, including limited mobile network coverage, lack of national IDs and social barriers for women recipients.

Save the Children originally considered taking other steps that might have encouraged the uptake of mobile services. More hands-on training in particular might have improved digital and financial literacy. However, the cost would have reduced the amount of money Save the Children could have transferred, and the lack of digital literacy and knowledge did not have an obvious negative impact on the average participant's experience with the transfer mechanism or the programme as a whole.

2.3 Bangladesh

2.3.1 Financial services and mobile money: national overview

Only 8% of adults in Bangladesh have active mobile money accounts. Forty-three percent of Bangladeshi

Table 3: Financial behaviour of e-transfer recipients before the project: Bangladesh

Financial service	Formal	Informal
Saving	Small number of respondents saved through an MFI, bank, village savings group	Main saving done through livestock (50%), cash at home (48%) and cash with relatives (15%)
Money transfer	26% used mobile money (over-the-counter transaction)	Money mainly sent through friends and relatives (76%)

Source: ACF household survey

adults have accounts at financial institutions, which is just shy of the regional average of 46%.⁵ Increased access to financial services from 2013 to 2015 was fuelled by growth in mobile money and microfinance accounts, though gains have been disproportionately amongst men and the non-poor (Financial Inclusion Insights, 2015).

The Bangladesh central bank launched mobile money regulations in 2011 with the aim of increasing access to financial services. Opening a mobile money account requires customers to register with the mobile network operator for a SIM card and then with the bank for a mobile wallet. Both steps require customers to present a national identity card and photocopy. As of May 2016, a biometric thumbprint is also necessary. In comparison to many other countries, these requirements are more stringent. Bangladeshis can access mobile money either through their own mobile money wallets or using an agent's wallet to conduct an over-the-counter (OTC) transaction.

2.3.2 Emergency e-transfer programme

In June 2015, torrential rains set off flash floods and landslides in several areas of Bangladesh. Action Contre la Faim (ACF) provided assistance to meet the basic needs of 1,334 flood-affected recipients in Cox's Bazar with two unconditional cash grants delivered through mobile money. In Satkhira, ACF organised a cash for work (CFW) programme that reached 2,300 people, who each received four cash transfers.

It took ACF four months to select and contract service providers. Contracts were required with both mobile network operators and mobile money service providers (i.e. banks). Although many recipients had access to a SIM card, ACF decided to register everyone for mobile money wallets to ensure that targeted individuals had access to the transfer. Mobile money service providers

reportedly also saw this registration as a good way of acquiring more customers and ensuring the proper registration of accounts.

Registration events were held where local NGOs and service providers facilitated brief orientation meetings on how to use mobile money and access cash transfers. ACF and its local partners informed recipients that they could use their mobile wallets after the project ended, but no formal or practical training took place to reinforce this message. Due to delays with contracting and the complex two-step mobile wallet registration process, most of ACF's first cash transfers were disbursed manually in both projects. When mobile payments were introduced, participants were instructed to bring their SIM card to the mobile money agent on specific disbursement days. For participants who did not have a personal phone, the agent's phone was used.

2.3.3 Financial behaviour before the project

Prior to the project a minority of recipients had used mobile money, and most people relied on informal services (see Table 3). A quarter of people surveyed had used mobile money to make transfers. They had not used other digital financial services.

2.3.4 Financial behaviour after the project

Exposure to mobile money did not result in significant changes in how participants accessed financial services. Twelve percent of respondents reported using their mobile money accounts for savings. The overwhelming reason why people did not keep money in their wallets was that they needed the cash for immediate household needs. However, more than half of respondents were not aware that storing money in this way was an option, and others did not trust the mechanism (or know how to use it to save). Most were also unaware that they could deposit their own money.

There was little incentive to save money in a mobile wallet when other means of saving, such as livestock

⁵ World Bank Findex data 2014, worldbank.org.

and savings groups, could be more lucrative. Focus group participants wanted to use their money to make money. One woman noted that purchasing and then selling \$6 in betel nut (a stimulant) could nearly double her investment. She added: 'But if I keep money in my bKash account, I will not get any profit'. Some women reported that they had to be accompanied by a male relative when travelling to the market to conduct transactions, which made mobile money inconvenient and complex compared to alternatives. Fees were also considered too high to make using mobile money worthwhile.

Over half of focus group discussion members had made OTC transfers since the project. While a small sample, this suggests that participants were making more use of this service than they were before the project was implemented. Most were aware that their mobile wallets could be used to transfer money, but they still mainly used OTC services because they were more comfortable relying on the agent to conduct the transaction. Women were very concerned about losing their SIM cards, which they feared could jeopardise any future ACF cash transfers because of the cumbersome replacement process. As a result, many reported keeping their SIM cards locked away at home when they were not being used.

Very few used other digital financial services. Just three out of 50 survey respondents reported using mobile money to purchase goods or services, and four used mobile money to buy airtime after the programme ended. Most respondents were unaware of the option to purchase airtime.

2.3.5 Barriers to use and uptake of digital financial services

The limited uptake of mobile money among e-transfer recipients in Bangladesh revealed a higher number of barriers than enabling factors. One notable obstacle was participants' capacity to operate mobile money. Most participants experienced problems during the cash-out process, mainly with PINs and around the use of technology. Among survey respondents, only one person out of 50 could fully explain the cash-out process. Focus group discussants said that their limited understanding made them reluctant to use the services, lest they accidentally lose money. Respondents stated that the top two things they needed to enable them to use mobile money in the future were a more user-friendly

interface (100% in Satkhira and 68% in Cox's Bazar) and more training on how to use it (80% in Satkhira and 84% in Cox's Bazar).

In addition to having to be accompanied by a male relative when travelling to markets, women faced other specific constraints that deterred them from using mobile money. 'Family' phones are usually controlled by the male head of household, which limits women's ability to use the phone and access financial services. Eight women in a focus group bought or were gifted a handset to give them more control over their e-transfers and mobile wallets.

Other barriers to using mobile money included:

- Understanding the product offerings: only half of respondents understood that storing cash in their mobile wallet was possible; fewer understood that accounts could be used to make deposits, send money and purchase goods and airtime.
- Pressing immediate needs: participants lacked surplus money to transfer or save.
- National regulatory environment: the two-part mobile wallet registration process delayed delivery.
- Distance to agents: mobile money agents were close to Satkhira (all participants had an agent less than 30 minutes away) but not Cox's Bazar (only 36% had an agent 30 minutes away or less).
- Mobile money fees: although fees were not commonly cited as an obstacle they did constitute an additional disincentive.

2.3.6 Enabling factors

Even with the limited uptake and problems encountered cashing out transfers, several factors could be leveraged to increase usage in the future. People were aware of mobile money and trusted the mobile money service providers, and assistance was available if needed. In Satkhira, where people had easier access to agents, nearly all those consulted expressed a preference for mobile money for any future transfers (by contrast, in Cox's Bazar most preferred cash-in-hand).

The provision of transfers did not significantly alter how participants managed their household finances or their approaches to saving and transferring money. People lacked understanding and trust in mobile money and had more profitable and accessible savings alternatives.

Table 4: Barriers and enabling factors to uptake of digital financial services

Financial service	Formal	Informal
Present in all three studies	Limited/varying demand for digital financial services Prioritisation of consumption needs Lack of digital literacy Travel or wait times at agent	Trust in agents and/or service provider
Zimbabwe	National liquidity crisis Fees	Accessible technical support Knowledge/awareness of products Preference for mobile money Multiple e-transfers delivered Network coverage Phone ownership Alignment of mobile money provider's strategy and project objectives
Bangladesh	Understanding of available mobile money products Regulatory hurdles Gender-specific barriers Fees	General awareness of mobile money Preference for mobile money Accessible technical support
Ethiopia	Understanding of available mobile money products Network and electricity coverage	Perceived utility of products Training Phone ownership Pre-project use of financial services Multiple e-transfers delivered Fees Alignment of mobile money provider's strategy and project objectives

3 Conclusion

The case studies show that receiving humanitarian cash transfers through mobile money can increase the use of certain services but does not automatically lead to widespread or sustained uptake. In Ethiopia, the project resulted in the expansion of mobile money to the project area, and almost all participants purchased phones. In Bangladesh, participants did not widely use mobile money before or after the project. In Zimbabwe, where liquidity posed particular constraints, a quarter of participants started saving in their mobile money account after the project. In all three cases, participants increased the transfers they made through mobile money.

The provision of humanitarian e-transfers, even when combined with training, was not sufficient to enable participants to conduct mobile money transactions independently. Only 10% of recipients surveyed across the three case studies knew all the steps to cash out a mobile money transfer. Recipients were still able to access their e-transfers with the help of mobile money agents, mobile network operator staff, NGOs, friends and neighbours. More personalised and thorough training would be necessary to promote digital literacy. If, as is often the case in a humanitarian crisis, the main goal is meeting people's urgent needs through cash transfers, other types of support are likely to be more appropriate, including helpdesks, assistance from NGO staff and basic training.

A prominent barrier to the uptake of digital financial services was that there was no strong demand for most of these services amongst recipients. They withdrew the humanitarian e-transfer to meet pressing household needs, rather than leaving money in their accounts as savings or to conduct additional transactions. Even when people had money to spare, they often turned to more familiar ways of saving and investing, such as buying livestock. Recipients may, quite sensibly, prefer to continue using informal financial systems with which they are familiar.

While some of the barriers to using mobile money, such as network coverage, cannot be easily influenced by aid agencies, others can, to varying degrees. NGOs can work with mobile money operators to encourage the expansion of services, as they did in Ethiopia and

Zimbabwe. Phone ownership enables the use of mobile money, and offering a payment plan and subsidy encouraged people to buy phones in Ethiopia. Mercy Corps in Ethiopia and Save the Children in Zimbabwe worked with local authorities to issue the documents needed to open accounts. In Bangladesh, ACF helped recipients navigate the tedious process of registering SIM cards and mobile money accounts. How an e-transfer programme is designed and implemented therefore can influence some of the barriers to using mobile money, although the programme alone cannot create demand if recipients prefer other financial services, or do not find financial services available through mobile money relevant to their needs. Humanitarian agencies considering investing in making these links need to understand demand for digital financial services, rather than assuming that access to them is a priority.

Encouraging the use of financial services through mobile money requires resources. During or immediately after a disaster or crisis may not be the most suitable moment to invest in and oblige recipients to attend extensive training; other delivery channels may be more appropriate than mobile money. At other times, high demand for financial services or longer-term cash transfer programmes may make such investments worthwhile. In these instances, humanitarian organisations that do not have the relevant capacity and experience may consider partnering with development organisations that do. As mobile money infrastructure expands, so too will opportunities to provide humanitarian cash transfers quickly and at scale through these systems. Even when increasing access to digital financial services is not an appropriate goal or a priority, aid agencies still need to be capable of using digital systems where they are the most efficient, accessible and transparent way to deliver humanitarian cash transfers.

The following recommendations emerged across the three case studies:

- Recognise that increasing digital literacy among people new to mobile technology requires on-going training and opportunities to practice, which

- may not be possible or a priority in short-term humanitarian programmes.
- Assess demand for digital financial services (e.g. savings, money transfers) before investing in activities to improve uptake, and recognise that recipients may prefer to continue using other financial services that they consider more relevant and accessible.
 - Ensure that recipients unfamiliar with mobile technologies have adequate support to cash out their transfers during the project, for instance dedicated NGO staff and helpdesks.
 - Recognise the importance of recipients' trust in mobile money agents and build this trust through support, supervision and monitoring.
 - Monitor mobile money agents' liquidity to ensure that lack of cash does not significantly affect programme quality and participants' choices.
 - Consider ways to help with mobile phone purchases, such as through loans, payment plans and subsidies.
 - Assess and mitigate gender-specific constraints, such as women's access to phones and mobile money agents.

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Annex: Summary of projects

Country	Context	Description of cash transfer activities	Financial services and mobile money context
Ethiopia	The largely pastoralist Sitti Zone and the southern Afar Region in Ethiopia were particularly hard-hit by drought in 2014–15. Mercy Corps leads a five-year USAID-funded programme to support the resilience of pastoralists.	5,000 pastoralist households and households transitioning out of pastoralism received three cash transfers of \$45 each; 2,067 received mobile transfers through new accounts. Project sought to promote financial inclusion.	One of the lowest rates of mobile penetration in East Africa. 3% of adults had mobile money accounts in 2014. 22% of adults have access to a financial account.
Zimbabwe	Binga district in Zimbabwe has been affected by food insecurity for many years. Save the Children's EFSP project supported consumption and food security.	6,500 households received conditional and unconditional cash transfers (\$28 per month) for six months via EcoCash mobile money. Project did not seek to promote financial inclusion.	Significant penetration of mobile phones (98%). 22% of adults have mobile money accounts (compared to 17% with bank accounts). Confidence in financial systems is low owing to repeated financial crises.
Bangladesh	Bangladesh regularly experiences cyclones, tropical storms and flooding. Action Against Hunger provided support to disaster risk mitigation in one flood-affected community and humanitarian aid in another (funded by ECHO).	Satkhira: 2,300 people received four transfers through cash for work. Cox's Bazar: 1,334 received two unconditional transfers through mobile money. Projects did not seek to promote financial inclusion.	Bank-led mobile money. 9% of adults have registered mobile money accounts. 43% of adults have accounts at a financial institution (regional average of 46%).

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Cover photo: A man uses HelloCash, through a programme funded by Mercy Corps, to manage his money on his cell phone in Kebribeyah, Ethiopia. May 2016.

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