



International Federation
of Red Cross and Red Crescent Societies



Climate
Centre



Electronic Payment Mechanisms for Forecast-based Financing in Bangladesh

March 2018

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Acronyms

A2I	Access to Information
ARC	American Red Cross
BA	Bank Asia
BDRCS	Bangladesh Red Crescent Society
CPP	Cyclone Preparedness Program
CTP	Cash Transfer Program
CWG	Cash Working Group
DDM	Department of Disaster Management
DG	Director General
EGPP	Employment Generation Program for the Poorest
EMTS	Electronic Money Transfer Service
FbA	Forecast-based Early Action
FbC	Forecast-based Cash
FbF	Forecast-based Financing
FFWP	Food for Work Program
FSP	Financial Service Provider
GP	Grameenphone
GRC	German Red Cross
IFRC	International Federation of Red Cross/Crescent
KYC	Know Your Customer
LA	Local Actor
MoA	Memorandum of Agreement
MBS	Mobile Banking Service
MBSP	Mobile Banking Service Provider

MFI	Microfinance Institution
MFS	Mobile Financial Service
MFSP	Mobile Financial Service Provider
MMT	Mobile Money Transfer
MOWCA	Ministry of Women and Children's Affairs
NCWG	National Cash Working Group
NFI	Non-Food Item
NGO	Non-Governmental Organization
OTC	Over the Counter
P2B	Person to Business
P2P	Person to Person
RCRC	Red Cross Red Crescent Movement
RCRCCC	Red Cross Red Crescent Climate Centre
VGD	Vulnerable Feeding Group
VGf	Vulnerable Group Development
WASH	Water, Sanitation and Hygiene
WFP	World Food Program

Executive Summary

This research was implemented as part of an exploratory phase of using cash transfers within Forecast-based Financing (FbF) (using weather forecast data combined with vulnerability data to trigger specific early action in advance of a disaster, saving lives and livelihoods)¹, referred to as Forecast-based Cash (FbC). Note that FbF is itself a subset of the growing field of Forecast based Early Action (FbA), an approach which emphasizes decision-making protocols, preventative financing, and targeted resource allocation prior to a disaster (Wilkinson *et al.*, 2018).

Commissioned and supported by the Red Cross Red Crescent Climate Centre (RCRCCC), American Red Cross, and German Red Cross (GRC), this research was ultimately conducted in order to be able to support the Cash Transfer Programming (CTP) efforts of the Bangladesh Red Crescent Society (BDRCS), the Red Cross Red Crescent movement (RCRC) and other humanitarian agencies across Bangladesh. In surveying the electronic cash landscape in Bangladesh, it offers an opportunity to compare different cash delivery mechanisms and Financial Service Providers (FSPs), as well as to inform implementation decisions.

The assessment was carried out in order to better understand the FSP and electronic payments landscape in Bangladesh, specifically as it relates to the potential for using cash payments within FbF approaches. It builds upon complementary research such as the Bangladesh Cash Working Group's comparative study of cash transfer payment mechanisms² and Oxfam's review of cash transfer programs in Bangladesh³ and other reviews of mobile money and e-transfers³, but specifically looks at considerations for early action approaches (Parvez, Islam and Woodard, 2015; Rahman, Suvro and Ahmad, 2016; Willis, 2016; Bhatnagar, Wazed and Hannan, 2018). While more in-depth internal considerations were documented for Red Cross implementing teams, the summary results of the assessment are being shared to help inform additional approaches and promote collaboration among stakeholders.

Main findings include:

- Mobile financial services (MFS), from bKash to Rocket and similar products, are tied to banks and bank accounts and have stringent Know Your Customer (KYC) requirements. The time required to complete the KYC procedures (bank procedures plus very short mobile network requirements, taking 5-15 days) is often too long to be viable for FbC.

² February 2018, available through the Bangladesh Cash Working Group

³ Such as Mercy Corps and CaLP's review of e-transfers and financial inclusion

(<https://reliefweb.int/report/bangladesh/can-e-transfers-promote-financial-inclusion-emergencies-case-study-bangladesh>) and USAID's 2015 review of mobile financial services

(<http://www.cashlearning.org/downloads/mfsinbangladeshapril2015.pdf>)

- Mobile network operators (MNOs), such as Grameenphone, can directly offer limited mobile money services and require just a short (telco) version of the KYC. However, these mobile wallets cannot be cashed out or used for other financial services.
- The electronic and mobile money landscape is rapidly evolving in Bangladesh. It is possible that KYC and other MFS regulations will adapt in Bangladesh and open up additional possibilities for humanitarian cash distribution for early action. A move to electronic KYCs, National ID Card (NID)-enabled payments or other changes that speed up the total time needed for payments would make a broader suite of providers suitable as potential partners.
- Exploratory assessment conversations indicated some possibility for the creation of an innovative mixed model that would blend the capacities of an MNO and a bank or entity such as the Post Office to support encashment of mobile wallets.
- Over the Counter (OTC) electronic money services, such as those through the Bangladesh Post Office (BPO) do not require a bank account and are well known and used in country, but face operational and liquidity challenges.
- There are potential access issues for women to receive mobile or electronic cash payments, including the ability to reach and safely interact with payment agents or cash distribution points, access to and control of cell phones, and preferences in receiving cash in an emergency period.
- The criteria for Financial Service Providers (FSP) for Forecast-based Cash (FbC) includes both broad considerations and specific needs for early action. Main criteria include the current modalities and services offered by an FSP and coverage of those services, their ability to distribute a certain level of funds and ability to do it within a compressed timeframe, agent distribution coverage and ability of all beneficiaries to access agents, overall financial capability and liquidity, willingness to work with vulnerable clients and humanitarian actors in an emergency situation, adoption of services by female clients, and ability to verify and reconcile payments.

Main recommendations include:

- Consider mixed models that leverage the strengths of providers and fully take into account the needs of beneficiaries.
 - Pursue partnership models that offer an opportunity for innovation, such as working with a mobile network operator (MNO) in partnership with a bank or other FSP to prototype more efficient payment models.
 - This extends to choosing a FSP based on the designated criteria, and not simply based on reputation or coverage of services. The preferences and ability of beneficiaries to understand and utilize services should be heavily taken into account.
 - Different modalities may be appropriate for different contexts or hazards. The Early Action window varies from 24-48 hours for cyclones, to several days for flood hazards. Further, some particularly vulnerable households or communities may not be able to access electronic payments, even if the service works for many recipients. Specific groups of beneficiaries or a specific geography may then require a separate modality, such as cash in hand.

- Simulations or tests of payment models within a hazard early action area can provide additional information on challenges and gaps in service.
- Focus on solutions that consider intersectionality and the specific needs of women in receiving electronic cash payments, as well as opportunities for financial inclusion and financial literacy.
- Increase advocacy efforts within the humanitarian community and government to promote early action approaches, as well as in partnership with other humanitarian actors to have the Bangladesh Central Bank and the government consider a humanitarian exemption to time-consuming KYC processes.

Research Objectives

This report intends to map the coverage of potential service providers for electronic payment mechanisms in Bangladesh, and specifically analyze their potential for Forecast-based Cash (FbC). The Bangladesh Bank (the Central Bank of Bangladesh) launched mobile money regulations in 2011 with an aim to expand financial inclusion. Mobile Financial Service Providers (MFSPs) are able to extend their reach into rural areas through a distribution network of mobile money agents that do not rely on ‘brick and mortar’ branch offices. MFSPs in Bangladesh are bank-led (meaning all mobile wallets that can be cashed out must be linked to a formal bank account). This contrasts with many other countries, where mobile money is delivered directly by MNOs (e.g., MPESA in Kenya)(Willis, 2016).

As regulations in Bangladesh require most mobile money services to be conducted in partnership or lead by banks, different types of services have emerged. Mobile Financial Services (MFS) include a suite of financial services available online through providers such as bKash (partnership with BRAC Bank), and other mobile banking providers such as Dutch Bangla Bank’s (DBBL) Rocket service and Rupali Bank’s SureCash, which are online services specifically tied to a bank account. Limited Mobile Network Operator (MNO) mobile money services, such as Gpay (Grameephone), allow the user to have a mobile wallet from which to purchase airtime or train tickets, and pay utility bills. Over the Counter (OTC) cash services include the Post Office’s Electronic Money Transfer Service (EMTS), which allows cash pick up through a postal agent but no other mobile services. Although these services are all broadly defined as mobile financial services or mobile money, in this report the more limited services offered by mobile operators are defined as MNO services. This research has a focus on the capacity of these entities to provide services for CTP within a Forecast-based Financing (FbF) approach.

Principal Objectives

- FSP Mapping: To explore electronic payment mechanism options available in Bangladesh with the aim of identifying one or more solutions to utilise for CTP work, with a focus on FbF and its timing and logistical constraints.
- To follow up with potential partner FSPs to map specific offerings and user journeys with each modality and service provider.

- To provide recommendations to inform FSP partner selection.
- To raise awareness around the demands and constraints of FbC through outreach with relevant organizations

Methodology

This report draws upon secondary research, including a literature review that examined the current electronic payment mechanisms and FSP market landscape in Bangladesh as well as analysed past reports and mapping exercises.

Primary research, including semi-structured meetings and interviews with key stakeholders in Bangladesh (potential FSPs, Bangladesh Bank, other humanitarian and development agencies working in FbF or CTP, the Red Cross Cash Working Group, and other Partner National Societies in the RCRC movement) was conducted by an external consultant and the GRC FbF team between November 2017 and March 2018. This research was supplemented with focus groups and interviews in Chittagong in February 2018 to better understand beneficiary preferences and FSP market penetration.

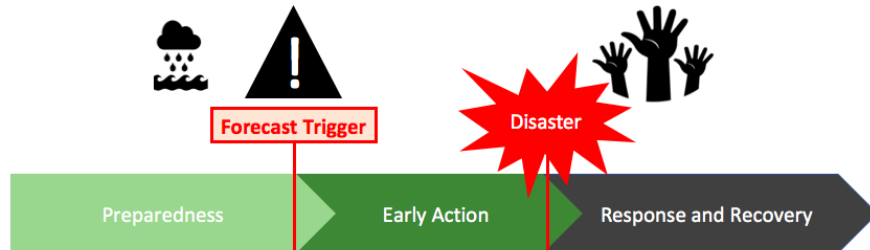
Background and Context

Forecast-based Financing in Bangladesh

Forecast-based Financing (FbF) is an innovative anticipatory approach which ties together Early Warning and Early Actions in one integrated framework. It uses forecasts to catalyse Early Actions and humanitarian funding ahead of an extreme weather event, be it flooding, a cyclone, or a cold wave. Funds are distributed to beneficiaries in the short window between the forecast trigger and the disaster, and must give sufficient time to beneficiaries to use the funds for evacuation, fortifying their houses, purchasing necessary materials, and other mitigation measures. The time frame for FbF is known as the 'Early Action Window' and can be seen in darker green in the diagram below (GRC, 2018).

FbF Strategy

Many humanitarian actions could be implemented before a disaster based on forecasts.

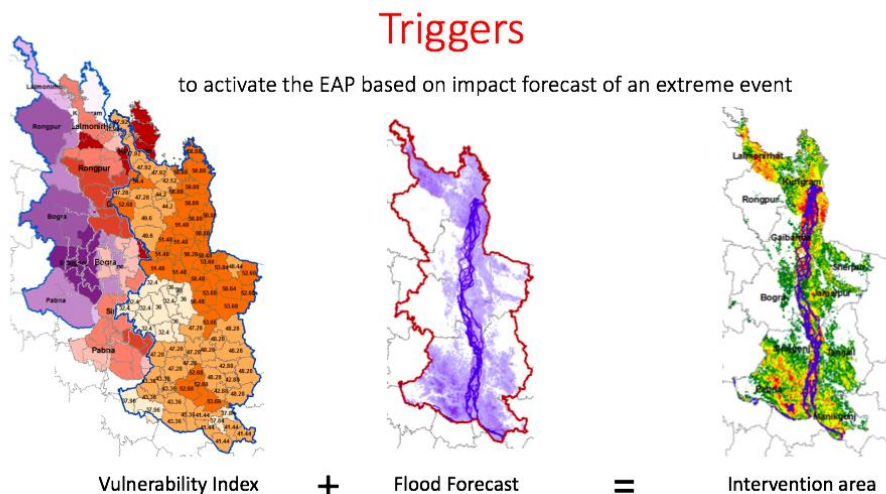


The aim of FbF is to use forecasts to identify areas in which a hazard is imminent, then act to intervene with early actions, one of which is providing beneficiaries with cash to enable them to act in advance of the projected disaster event. These funds are for predetermined activities agreed upon with local actors and the community that reduce suffering, enhance preparedness and response, and contribute to strengthened community resilience. FbF is indicative of a changing humanitarian financial landscape and a focus towards advancing the shift from traditional post-disaster response to pre-hazard early action.

RCRCM has conducted three FbF interventions to date in Bangladesh: for flooding in August 2016 and July 2017, and for Cyclone Mora in May 2017, all focused on providing a small cash payment before a disaster struck to households projected to suffer the greatest impact from the hazard. Beneficiaries largely used their funds for health, food, transportation, and livestock, and 70 % used the funds prior to the disaster event (GRC, 2018).

Impact-based Forecasting

RCRCM is moving away from geographic targeting and pre-identified areas of operation, instead adapting the methodology of 'Impact-Based Forecasting' which overlays forecasts with vulnerability maps to identify areas in which to target interventions. These intervention areas are not necessarily where floods or storm surge will be highest, but rather where the impact of the hazard event will be greatest (i.e. due to vulnerable populations or infrastructure, low resiliency, infrequency of event, reduced coping capacity etc.). The visualization below demonstrates Impact-based Forecasting layers (GRC, 2018):



Further RCRCM Piloting of FbF Approaches

Due to the short lead time, reliance on forecasts, and lack of pre-identified target communities or beneficiary lists, further piloting of FbF approaches presents unique constraints and demands in using cash transfer approaches. RCRCM will further pilot FbF approaches for cyclone and flood early actions through 2020. Due to the compressed window of time between trigger and disaster event with cyclones, as well as the current time-consuming Know Your Customer (KYC) registration process, for the 2018 cyclone season there has been a decision to move away from cash to evacuation support for people and livestock, and NFIs. Future cyclone plans also include the possibility of intervention at a community rather than household level. This research is intended to contribute to the assessment phase of this further pilot period.

Forecast-based Cash (FbC) and Electronic Transfer Mechanisms

FbC is a subset of the Forecast-based Financing (FbF) approach, where cash transfers are implemented to meet FbF objectives to save lives and livelihoods through early action. Cash transfers provide beneficiary dignity and choice and allow households and communities to determine their most pressing needs in the immediate period before a disaster. This assessment explores the potential for utilizing electronic payment mechanisms in providing hazard vulnerable households with cash, as an addition to the option of distributing direct cash in envelope/cash in hand.

The use of electronic Transfer Mechanisms, including Mobile Financial Services (MFS), have grown in Bangladesh since 2014, but are hindered by ‘registration bureaucracy and regulatory concerns’ that render cash in hand methods the fastest and most efficient way of distributing cash (Rahman, Suvro and Ahmad, 2016; Asiamoney, 2017). However, there is insufficient research into the full spectrum of modalities and providers available within mobile money and electronic payments:

“It is evident that the lack of available information as to the full range of payment method opportunities and their coverage in specific areas and their relative costs and other advantages and disadvantages is not adequately researched or documented. It remains questionable whether the existing cash in hand transiting to mobile money transfer (MMT) approaches provide the payment methods most appropriate to specific groups or types of beneficiaries or whether there is sufficient flexibility, coverage or capacity and readiness for a major and large scale sudden onset disaster that occur frequently in Bangladesh.” (Rahman, Suvro and Ahmad, 2016, p. 2).

This report builds on this call for further research into electronic transfer mechanisms and providers. Through conducting an overview of the electronic transfer landscape in Bangladesh, this research also addresses the “great need for all involved to build preparedness for emergency cash transfer

mechanisms well before a natural disaster occurs” (Bhatnagar, Wazed and Hannan, 2018, p. 6). According to an Oxfam 2018 report, proactive, capacity-building research can entail:

1. ‘Early market mapping’
2. ‘Building a common understanding of humanitarian needs and possible technological solutions’
3. ‘Establishing Pre-Agreements’ and identifying target partners, capacity gaps, and regulatory hurdles.
4. ‘Awareness Raising’ with beneficiaries and the general public (Bhatnagar, Wazed and Hannan, 2018, p. 6).

Research for this report addresses the first objective; it is research which is designed to give a broad, exploratory overview of the landscape of mobile and electronic money payments in Bangladesh. However, during the course of the research, engaging and meeting with various stakeholders (MFSPs, beneficiaries, other NGOs, government, Cash Working Groups, financial regulators etc.) also resulted in some level of progress being made towards the next two objectives: advocacy led to greater understanding of FbC needs and constraints within CTP; and mapping of FSPs has allowed for recommendations and greater decision-making to move to the next step of establishing pre-agreements and understanding regulatory hurdles.

Criteria for FSPs in Forecast-based Cash

In order to grasp strengths, weaknesses, opportunities, and challenges of working with FSPs within an early action context, the first course of action was to generate an evaluatory framework upon which to compare different service providers. Criteria for FSPs were initially drawn from the Cash in Emergencies Toolkit (ICRC, 2017). These criteria were then supplemented with research into past pilots and best practice guidelines, conversations with practitioners, and meetings with key stakeholders across the humanitarian regime as well as the financial services industry. These criteria were also cross-verified with a recently-released report on CTP in Bangladesh by Oxfam, and were found to match the criteria outlined therein (Bhatnagar, Wazed and Hannan, 2018)

Criteria included the current modalities and services offered by an FSP and coverage of those services, their registration process for clients, their ability to distribute a certain level of funds and ability to do it within a compressed timeframe, mobile network and agent distribution coverage and ability of all beneficiaries to access agents, data management and communication potential and protocols, overall financial capability and liquidity, overall management capacity, accessibility and service fees, and ability to verify and reconcile payments. Additional consideration was given to the ability to provide dedicated services, experience working with vulnerable clients, adoption of services by female clients, and experience working with the RCRCM.

Main Findings

Know Your Customer (KYC) Requirements

Mobile Financial Services (MFS) in Bangladesh must all be linked to a bank or its subsidiary, as dictated by the Guidelines to Mobile Financial Services (Parvez, Islam and Woodard, 2015). This has been a limiting factor for Mobile Network Operators (MNOs), who are not permitted to offer a full spectrum of financial services unless they become affiliated with a bank (IFRC, 2015). For example, mobile electronic payment services from MNOs are limited to adding phone credit, purchasing train tickets, and paying utility bills, and are not able to offer the full spectrum of banking services that MFSPs or banks can.

Further, all financial service providers and banks are bound by stringent Know Your Client (KYC) regulation from the Bangladesh Central Bank. KYC is a “legal customer due diligence process which requires the provision of identification information on the senders and receivers of cash transfers” (Rahman, Suvro and Ahmad, 2016, p. 3). Currently, banks and MFSPs require a two-step verification process for the KYC process, which includes registration and identity verification which cannot yet be done digitally. In meetings with potential FSPs it became clear that these KYC requirements added a minimum of 5-15 days to the registration process. In terms of humanitarian disaster response programming, where beneficiaries are identified based on their vulnerability and the impact of a hazard (or potential impact), this represents a significant amount of time and delay in providing cash assistance. It therefore presents a significant hurdle to Forecast-based Cash’s (FbC’s) chances of operationalization within the short Early Action window between a forecast and a disaster.

Mobile Network Operator (MNO) ‘telco’ KYC is short form, which only asks for four components in order to be able to verify the customer: the customer must be physically present in front of the agent, they must have their National ID Card (NID) with photo, the NID must be digitally cross-verified against the electoral database, and if the match is approved, the customer must complete biometric verification (i.e. fingerprints). As such, MNOs have the capacity to register beneficiaries within 3-5 minutes, reliant on having network coverage. The telco KYC is only for a mobile wallet (or it is additional to banking KYCs in order to tie mobile money services to a bank account), which has limited functionality and does not permit the withdrawal of cash.

Know Your Customer (KYC) Developments and Advocacy

In meetings with representatives from the Financial Intelligence Unit of the Bangladesh Bank (BFIU), they outlined that electronic KYCs (e-KYC) and tiered KYCs were a priority of theirs and should be launched nationwide by the end of 2018 (Rana, 2017). e-KYCs are projected to dramatically decrease processing times and enable clients to register within 24 hours. In February 2018 meetings with Access 2 Information (A2I), the coordination point for digital finance in Bangladesh, they signaled that they had just drafted the first version of e-KYCs together with the Bangladesh Bureau of Statistics (BBS) (A2I, 2018b). In projecting the likelihood that KYC regulation may open up in the future, it was mentioned

that Bangladesh tends to follow the lead of India (which has begun to loosen requirements) in these regulations.

According to Oxfam's 2018 report on CTP, KYC is a 'strategic issue' to influence (Bhatnagar, Wazed and Hannan, 2018, p. 6). Humanitarian organizations are separately pursuing temporary needs-based exemptions or modifications to KYC requirements. Joint advocacy can be considered, with approaches using low-risk one time payments to beneficiaries with Bangladesh registered IDs as an easy starting point for asking for exemptions to stringent KYC steps. Exemptions can be presented as temporary – a bridge until the National Household Database (NHD), e-KYC, or NID-enabled payment (all tools which would enable real-time registration) are in place in the future.

Mobile Financial Service Providers (MFSPs) in Bangladesh

Mobile Financial Services are often referred to as 'mobile money'. It is money that can be accessed through a mobile phone, sometimes backed by the mobile number alone and not a bank account. Mobile Financial Service Providers (MFSPs) often focus on unbanked populations and on building financial inclusion. It is not a full banking service. Common forms of mobile money include Mobile Money Transfers (MMT) such as remittances and other forms of person to person (P2P) transfers, as well as mobile payments from person to business (P2B) such as payments for utilities and air time.

Although the first MFSP only emerged in Bangladesh in mid-2011, MFS growth in country has been labelled unprecedented and it is considered one of the 'fastest growing mobile money ecosystems' in the world (Chen and Rasmussen, 2014; Al-Mahmood, 2015; Chakma and May, 2016; Mahbub, 2016). Bangladesh also has a very high mobile phone density that facilitates use of MFS (Alam, 2017). This high penetration of MFS is considered a significant benefit for CTP (Bhatnagar, Wazed and Hannan, 2018). The MFS industry in Bangladesh is strong and growing more so. As of 2016, there was more than 700 000 agents, 41 million registered customers, and 15.8 million active accounts (those in use within the past three months) (Alam, 2017; Islam, 2017). As of July 2017, daily transactions of BDT 8.44 billion were recorded (Parliament Correspondent, 2017).

There are currently 28 licenses for MFSPs that have been issued by the central bank in Bangladesh (Chen and Rasmussen, 2014; Islam, 2016b; Global Payment Summit, 2017), with 19 providers on the market (Parvez, Islam and Woodard, 2015). However, there is a strong market monopoly by bKash, which handles more than 80 per cent of current transactions (Chen and Rasmussen, 2014). Together, bKash and Rocket capture 90 percent of the market share (Islam, 2016a).

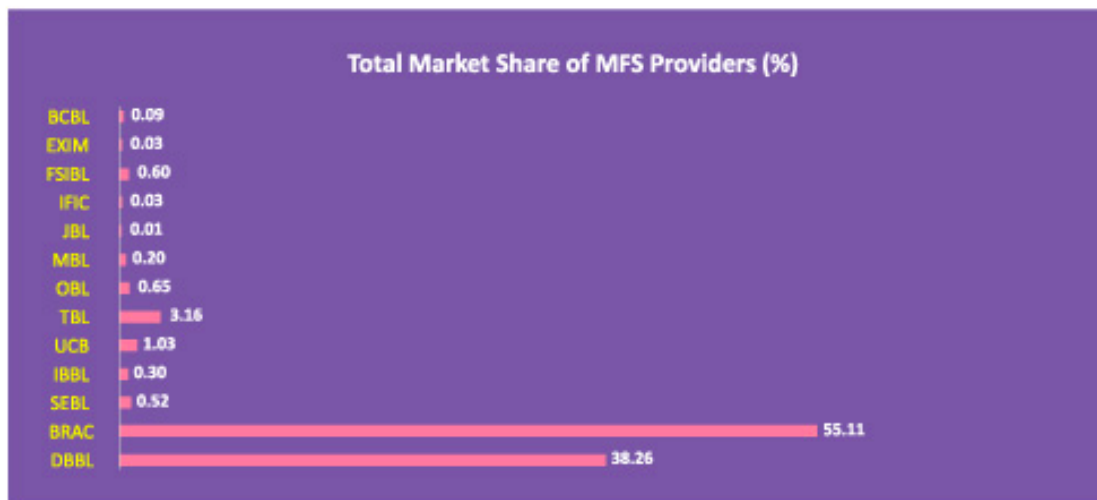
Insight into the big picture trends in MFS in Bangladesh can be gained through examination of the following chart, which highlights the rapid expansion in growth of agents, customers, and transaction amounts conducted through MFS (Alam, 2017).

Trends in Mobile Financial Services in Bangladesh

	2012	2013	2014	2015	2016
No. of Approved Banks	10	27	28	28	19
No. of Banks Offering MFS	3	18	19	18	17
No. of Agents	51,078	88,647	540,984	561,189	710,026
No. of Customers	3,018,989	13,179,834	25,186,250	31,845,658	41,078,524
No. of Active Customers	1,101,424	6,543,710	12,154,492	13,218,356	15,874,325
No. of Total Transaction (millions BDT)	29.19	228.85	589.48	1166	1,473.24
Total Transaction Amount (billions BDT)	71.23	517.83	1,031.55	1,772.76	2346.92

Source: Bangladesh Bank

The graph below outlines the total market share of MFS providers in Bangladesh as of 2017 (Alam, 2017). Although bKash (BRAC) continues to have a monopoly on the market, competition is increasing and “multiple players are now gradually taking into bKash’s market share” (Mahbub, 2016), including Rocket (DBBL) and other services.



Source: BIBM

Currently, CTP transfers through mobile money happen primarily through four main providers: DBBL (Rocket), bKash (BRAC), IFIC (International Finance and Investment and Commerce Bank), and the Postal Service (Rahman, Suvro and Ahmad, 2016). This report will explore these and other options.

Financial Inclusion

There are numerous barriers to financial inclusion in Bangladesh, in which only 39 per cent of the population have a formal bank account (Kachingwe and Berthaud, 2013). MFS can help to bridge this gap, as 95 per cent of the population has access to a mobile phone (Chakma and May, 2016).

Furthermore, MFS fees are ‘among the lowest in the world,’ making MFS a possibility for greater financial inclusion (Chakma and May, 2016).

Though it is labelled a ‘mobile money sprinter,’ (Shrader, 2015), there is uneven penetration and use of mobile banking across Bangladesh. Women and populations living in remote and rural areas continue to have less engagement in digital finance. It is estimated that approximately one quarter of the adult population remains ‘financially excluded’ (Parvez, Islam and Woodard, 2015). Nevertheless, MFS has been recognized for reaching formerly unbanked rural populations, and has increased flow of funds from urban to rural areas (Raquib, 2015).

MFS Risks & Challenges

Despite many advantages, MFS also carries some risk. Globally, studies of MFS have pinpointed seven key consumer risk areas to take into consideration: network down time, insufficient agent liquidity, complex interfaces, limited customer options, lack of transparency around fees, fraud, and privacy concerns (McKee, Kaffenberger and Zimmerman, 2015). These and other factors have emerged as risks within the Bangladesh context.

The broad challenge of mobile financial services in different areas of Bangladesh was highlighted in a field visit to Chittagong district in February 2018. Overall, there was high mobile penetration, with users in even the most remote of areas having mobiles and network coverage. However, penetration was uneven. It tended to be highest with those in positions of power in the village, who do in many cases have smart phones. There was also a gendered dimension present; families tended to have one phone, which belonged to the husband. These were largely feature phones. Generally, more socio-economically privileged women had phones (i.e. salt farm owners did, whereas those who worked for them did not). Estimates of mobile phone ownership among women in these rural coastal areas would be in the realm of 10-15%.

It was observed that more people had mobiles than were comfortable using them. Some of the people interviewed who owned mobiles did not know how to use many of the basic functions (i.e. inputting a contact etc.) and instead relied on their children to program things or dial numbers for them. Many did not know their phone number.

Further, for those who did have SIMs and/or MFSP accounts, there was not strong brand recognition or affiliation. Respondents indicated they had a phone provider but did not know the name, or that they had mobile money accounts but did not know with who or how it worked. Instead, they would rely on others to complete the functions that they needed (i.e. transferring funds from their child’s scholarship).

There is high turnover of SIM cards and they are sometimes sold without ‘valid authentication.’ Further, providers do not have access to government databases which further raises concerns around ID authentication (Eisenhart and Kretchun, 2015).

In January of 2017 the Central Bank of Bangladesh worked to reduce the number of multiple and inactive accounts by only allowing one account to be registered with a national ID card and SIM card, and lowering transaction limits to TL 15 000 twice per day (down from TH 25 000 three times a day) (Islam, 2017) after which the number of inactive accounts skyrocketed to 60 per cent as of February 2017 (Uddin, 2017).

Rocket

Dutch Bangla Bank (DBBL) commenced mobile banking services (MBS) in March of 2011 and re-branded as 'Rocket' in 2016 (Chen, 2012; Muntaka, 2017). It is the second most popular mobile fund transfer service in Bangladesh (after bKash), with 16-17 percent of the market share (Mahbub, 2016; Hossain, 2017). Like bKash, it has the capacity to manage contracts into the millions, and has an extensive network of agents across the country (Rahman, Suvro and Ahmad, 2016). Unlike bKash, it has low operating costs, the most ATMs in Bangladesh, and is the only MFSP with an app (Muntaka, 2017). It has been identified as among the top choices for CTP (during Recovery phase) by both NGOs and beneficiaries (Bhatnagar, Wazed and Hannan, 2018, p. 7).

Rocket has differentiated itself from bKash through a focus on women. It has the largest proportion of women agents of any MFSP (Shrader, 2015), which can help women users to feel more secure in accessing and using the service. Together with NGOs and the government, it also has programs that use 'dedicated women agents' and disburse salaries in garment factories (where upwards of 80 per cent of the workers are women), empowering women to have more access to the funds that they earn (Shrader, 2015). DBBL mobile banking 'targets delivery' of services to underprivileged demographics (Rahman, Suvro and Ahmad, 2016).

Rocket Considerations for FbC

RCRC met with Rocket and ascertained that at this point and time Rocket was not a viable option for FbC. The main rationale for this included a lack of flexibility to accommodate primary criteria necessary for early action approaches.

bKash

Launched in 2011, bKash is the first MFSP in Bangladesh (Mahbub, 2016), and is second largest mobile money provider globally, second to mPesa in Kenya (Devnath, 2015; Chakma and May, 2016). It is far and away the dominant MFSP in Bangladesh, to the extent that MFS is often referred to simply as 'bKash' (Eisenhart and Kretchun, 2015; Alam, 2017). Recent appraisals ascertain that, at 24 million registered clients (Global Payment Summit, 2017), it has between 55-58 percent of the market share in Bangladesh (Mahbub, 2016; Alam, 2017). bKash CFO Moinuddin has shared that the transaction value is over \$7.5 million USD per month, and more than 30 000 merchants accept bKash (Global Payment

Summit, 2017). bKash has managed multiple contracts into the millions of dollars, and has a solid brand affiliation and record of customer care (Rahman, Suvro and Ahmad, 2016; Muntaka, 2017).

bKash has four shareholders: BRAC Bank, Money in Motion, the International Finance Corporation, and the Bill and Melinda Gates Foundation (Global Payment Summit, 2017). The Bill and Melinda Gates Foundation has ‘made over \$21 million USD in grants and equity’ in bKash since 2011 (Chakma and May, 2016). This partnership has enabled microfinance programs that target women and girls, especially those in remote regions (Johora and May, 2015; Shrader, 2015; Chakma and May, 2016). It is indicative of bKash’s vision is to make their services available to unbanked populations, stating in their mission that: “By providing financial services that are convenient, affordable and reliable, bKash aims to widen the net of financial inclusion” (bKash, 2017).

bKash has a track record of working with local and INGOs related to floods and cyclones, and Oxfam Bangladesh uses bKash to pay employee salaries. bKash is favoured by many NGOs because of its extensive reach and many agents in rural areas, including on isolated river islands, which puts it at a ‘comparative advantage’ in that rural populations are able to access an agent within a 10-30 minute walk. Further, bKash is able to act quickly and can “be availed immediately in cases where there is a pre-developed beneficiary list” (Rahman, Suvro and Ahmad, 2016, p. 21). Representatives regularly attend CWG meetings and there is support available at all times through the 24/7 call centre (Rahman, Suvro and Ahmad, 2016).

It is important to flag that in-country actors expressed concerns that difficulties may arise from verifications and donor requirements with companies such as bKash. Their concerns are consistent with the literature review, which demonstrates weaknesses such as an English only menu, high service charges, and a lack of security for field agents (Muntaka, 2017). Other suggestions for improvement in CTP programming include enhanced coordination with NGOs, establishing the capacity to muster extra staff on short notice, and better systems of documentation (Rahman, Suvro and Ahmad, 2016, p. 21).

bKash Considerations for FbC

Though bKash was initially one of the strongest contenders for FSP service provision in FbC, multiple meetings with representatives demonstrated that bKash is not currently able to support FbF programming. Unfortunately, bKash was unable to overcome some of the baseline criteria required for FbC, including having an emergency mode of operation to be able to work on weekends or holidays and being able to compress KYC registration processes beyond the 5-6 days that they quoted. If and when these hurdles are overcome, and the dynamics of the working relationship shift to be more adaptable and dynamic, bKash would be a strong candidate. It has widespread recognition and adoption, and people interviewed at a field level in cyclone prone areas attested to the quality of service that bKash provides as well as the high levels of trust with which bKash is regarded.

Government Banks and Mobile Services

Government banks in Bangladesh were not providers that were targeted in the initial round of research because preliminary research did not identify them as a promising sector to look into. However, government banks were identified as a desired pathway to look into at a Red Cross Cash Working Group (CWG) presentation of research in December 2017.

Subsequent research into these banks confirmed that they are currently not a viable option for FbC. Although they have widespread legitimacy and work to incorporate many unbanked rural populations, they continue to face capacity and infrastructure constraints that inhibit their potential to serve as a service provider for this program. Below is a brief evaluation of the banks that were investigated:

Bank	Type	Assessment
Rupali Bank (SureCash)	State-owned commercial	<ul style="list-style-type: none">• SureCash operates through Rupali Bank and is listed as among the most popular options for both beneficiaries and NGOs (Bhatnagar, Wazed and Hannan, 2018, p. 7). Like many other providers in the sector, Rupali outlines a commitment to financial inclusion and to bringing in unbanked Bangladeshis.• For now, it was determined that they do not have enough capacity to distribute nor sufficient liquidity for early action approaches.
Krishi Bank	Government owned	<ul style="list-style-type: none">• Is known as ‘farmer’s bank’ for focus on agricultural sector• Enthusiastic and would like to support but have limited manpower and capacity to operate booths at field level• Would cost 10 BDT to open each account
Sonali Bank	State-owned commercial	<ul style="list-style-type: none">• Is primarily known for remittances from abroad• Charges are much higher than equivalent banks, and although they do have master rolls available, they would charge an honorarium to access them• In late 2016 Sonali was fined £3.3 million for failing to implement adequate anti-laundering mechanisms (BBC news, 2016)
Janata Bank	State-owned commercial	<ul style="list-style-type: none">• Primary research has revealed that Janata has limited personnel and capacity.

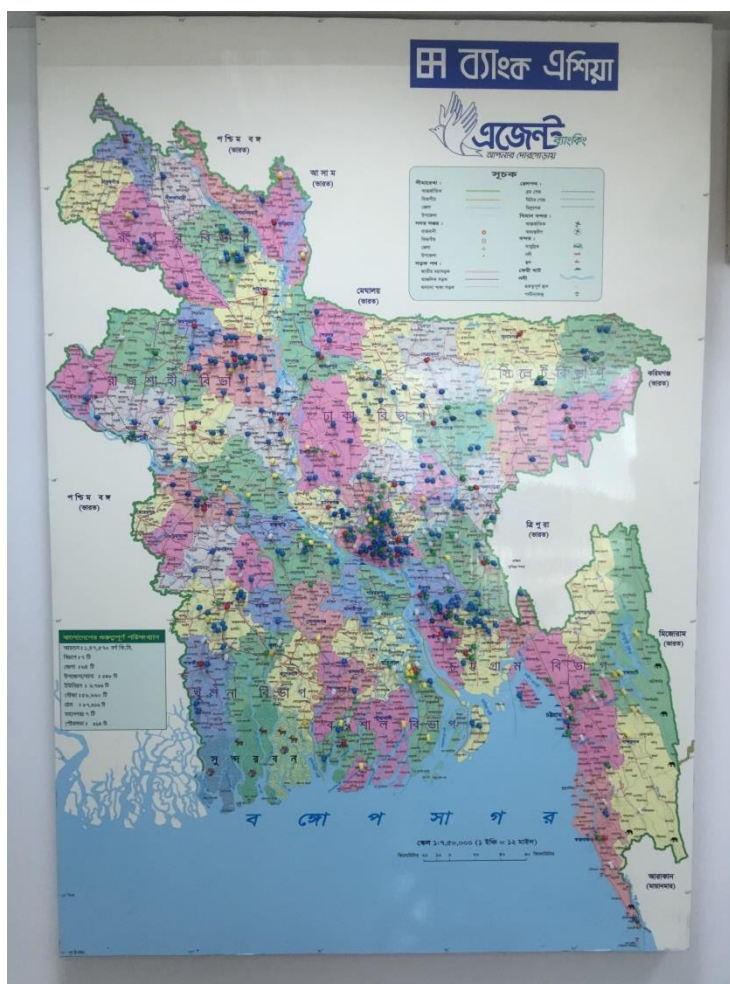
Bank Asia: IPAY & Cash Cards

Bank Asia was identified as a bank of interest in part due to their pre-existing MoA with GRC (valid until June 2018). They are a young bank (established in 1999) that are quite agile and dynamic in their programming and mission.

According to their website, they “started [their] service with a vision to serve people with modern and innovative banking products and services at an affordable charge” (Bank Asia, 2018). They thus pursue technological innovation and have been one of the most progressive banks in Bangladesh when it comes to digital and mobile banking.

Bank Asia coverage can be visualized through the map to the right, which shows outlets throughout the country.

Bank Asia currently has assets of 117 billion BDT and more than 70 outlets around the country (Bank Asia, 2018). They also have an additional 1600 agent outlets in 63 districts, with a field force of more than 1000 (Tulee and Alam, 2017).



Bank Asia & FbC

IPay is the MFS digital platform for Bank Asia, and includes mobile banking and remittances. One of the strengths of this system is that it is not tied to a particular MNO, and therefore can work with any telco (Bank Asia, 2018). However, it is currently only accessible via smart phones which most FbF beneficiaries would not have access to.

Primary research revealed that Bank Asia is eager to create possibilities for FbC implementation and partnership.

UCash

UCash is through the United Commercial Bank Ltd, and has just over 7 percent of the market share nationwide (Mahbub, 2016). It is partnered with the Asia Foundation and Bangalink telecom and has a focus on inclusive digital finance for women and ‘reach[ing] new markets’ (Shrader, 2015).

mCash

mCash is run through the Islamic Bank of Bangladesh Ltd and has 8.5 per cent of the market share (Mahbub, 2016). Having started in 2012, it is the third largest MFSP and has the potential to compete with Rocket and bKash (Muntaka, 2017). However, it is held back by a lack of agents and apparent parent company links to terrorist organizations (Muntaka, 2017).

MYCash

MYCash is offered through Mercantile Bank Ltd and has 3 per cent of the market share (Mahbub, 2016).

IFIC Mobile Bank

IFIC offers MFS but has a very limited portion of the market share and a ‘minimum presence’ (Rahman, Suvro and Ahmad, 2016)

The Bangladesh Post Office (BPO)

The Bangladesh Post Office (BPO) operates under the auspices of the Ministry of Posts, Telecommunications, and Information and Communications Technology (ICT). It has been in operation since Bangladeshi independence in 1971, though Electronic Money Transfer Service (EMTS) was not introduced until 2010 (Rahman, Suvro and Ahmad, 2016). BPO then introduced mobile financial services (MFS) in 2012 which was directed at unbanked demographics (Kachingwe and Berthaud, 2013).

BPO is deemed to have excellent coverage and one of the ‘largest outreaches’ in the country (Rahman, Suvro and Ahmad, 2016; Bhatnagar, Wazed and Hannan, 2018). There is a post office in every union in the country (Nur, Ahmed and Alam, 2017). BPO has therefore been a key provider for rural areas, with 76 per cent of offices located in rural areas. They have a network of 2000 staffed government offices and 8500 more rural branches that are served by ‘agents on an ad honorarium basis’ (Kachingwe and Berthaud, 2013).

However, there are uneven service offerings within this extensive network. A visit to the field near Chittagong as part of this research revealed that the BPOs in the area did not have internet or EMTS capabilities yet. This is corroborated by a recent Oxfam and National Cash Working Group report on CTP

in Bangladesh, which highlights that there are ‘staffing and operational issues’ in rural post offices (Bhatnagar, Wazed and Hannan, 2018, p. 7).

The BPO has similarly mixed performance reviews and experiences when it comes to mobile money. It has been recognized as a model for other post offices that want to innovate and offer MFS (Kachingwe and Berthaud, 2013). In meetings with various representatives from the BPO, they expressed forward looking and thinking plans –to expand their services to more rural areas, to ramp up their cash cards offerings, to perhaps partner with MFSPs such as bKash in the near future.

However, the BPO also faces critiques of being outdated (Muntaka, 2017), and that same Oxfam report has labelled the BPO the ‘most disinterested institution to take up the cash transfer’ in Bangladesh (Bhatnagar, Wazed and Hannan, 2018, p. 7). Primary research revealed enthusiasm from BPO staff; however, it was tempered by lapses in communication and follow through.

Electronic Money Transfer Service (EMTS)

EMTS is a ‘mobile money order service’ which is currently available at 2,750 post offices across the country (BPO, 2017). There are 20,000 post offices across the country (Nur, Ahmed and Alam, 2017), so only 10 % of BPOs currently have EMTS capacity. The procedure for EMTS is described as such:

The sender goes to the post office and fills up an issue form (EMO -1) giving required information [. . .]The post office staff sends the information to the central server through the computer or official EMTS mobile phone. When the request is accepted and confirmed by the server through issuing SMS generating a 16 digit unique PIN to senders mobile phone and a separate confirmation message is sent to issuing post office. The sender shall inform the recipient to collect the money from his/her nearest post office. The recipient goes to the post office and again fill up the disburse form (EMO-2) and claim the money showing the PIN. The post office counter operator verifies the information given by the recipient from server with those used earlier by sender; if everything is match the disbursement procedure is made. As soon as the disbursement is completed the sender is again confirmed by another SMS generated by the server (BPO, 2017).

The process is such that RCRC transfers funds to the BPO, the BPO holds the cash at a district level, RCRC gives a list of beneficiary names and their phone numbers to the BPO, and BPO then texts those numbers with a code and a location to come pick up cash. There is an upper limit of 25 000 BDT per beneficiary per month, and 10 000 BDT per beneficiary per transaction (Nur, Ahmed and Alam, 2017). However, the BPO does not actually have any mechanism in place to be able to verify that the numbers that they are sending the messages to are correctly linked to the beneficiaries; this can only be done at the point of encashment. Further, beneficiaries do not actually have electronic cash linked to them, nor any account.

BPO Cash Card



The Postal Cash Card is a cash card that currently has limited scope, but is quickly being expanded across the country. BPO has partnered with Third Wave Tech Limited as their master agent for cash card distribution, and anticipate rapid expansion of cash cards.

“It has Postal Cash Card for beneficiary payment that allows payment transfer directly to the beneficiary’s online card account.

Payment is made by swiping cards. Each card holder has a PIN or his/her biometric information can be used to operate the account. The payment system can be monitored centrally. Beneficiaries can withdraw the money as soon as the money is transferred to his account from nearest Post office or payment can be made at his home i.e. payment can be made at their home like money order” (Rahman, Suvro and Ahmad, 2016, p. 15).

For the cash card system, there is a maximum of 5,000 smart cards that can be produced at a time (Rahman, Suvro and Ahmad, 2016). Other important features are an initial charge of 110 TK for the card, as well as one percent of the total amount and TK 5 per transaction (Rahman, Suvro and Ahmad, 2016, p. 15).

Considerations for Forecast-based Cash with BPO

In sum, there have been some exceedingly positive experiences with the BPO; both with new developments they are pursuing as well as with their role mobilizing on short notice to distribute FbC via EMTS to beneficiaries before Cyclone Mora in May 2017. It is further advantageous because the BPO has demonstrated an emergency mode of operation and working to disburse on weekends or holidays is not an issue for EMTS. As the quality of BPO services and communications have varied, it may be important to test different cash services in order to fully understand their market penetration and efficacy.

Mobile Network Operators (MNOs)

MNOs are rapidly evolving in Bangladesh. Just two days before submitting this report, the three largest providers started to offer 4G across the country (Staff Correspondent, 2018).

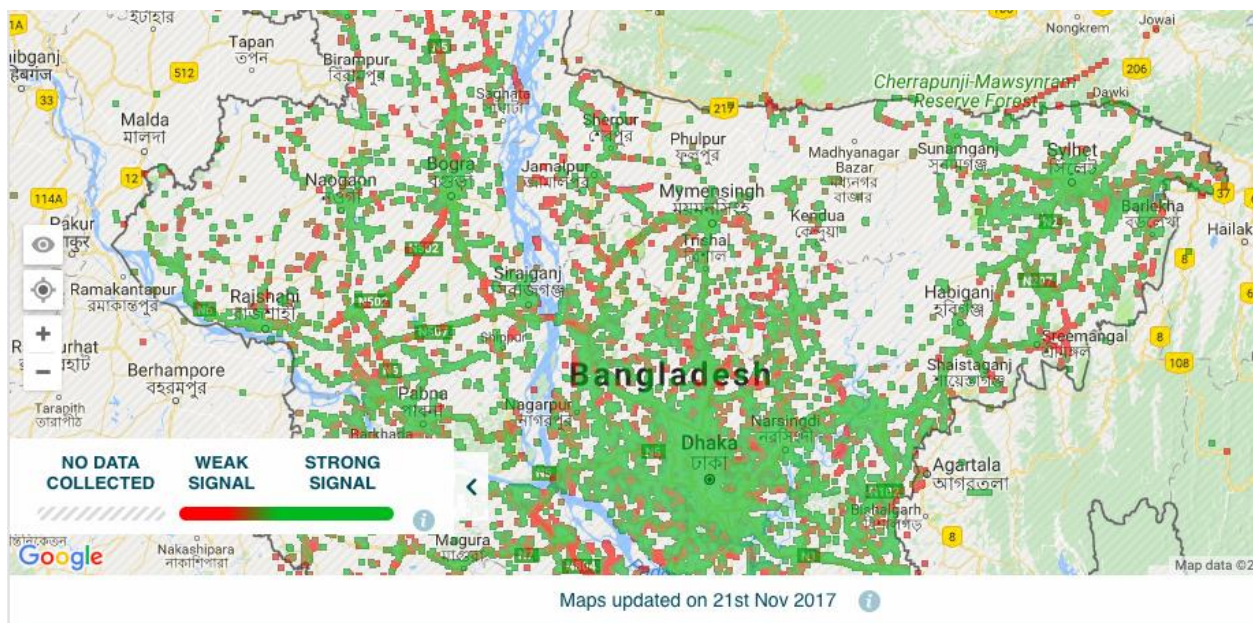
However, it is important to note that MNOs are outside of the financial system in Bangladesh. MNOs cannot directly operate as MFSPs (IFRC, 2015). Whereas MFSP clients must complete the banking KYC, MNO clients register with a condensed version, known as a ‘telco KYC’. This telco KYC is electronically

verified and therefore quick to set up. However, as it offers less information than the banking KYC, MNOs are more constrained than MFSPs in what they can provide.

MNO mobile wallets in Bangladesh are closed wallets, in which clients cannot transfer funds to each other. Generally, these wallets have functions such as topping up air time, paying utility bills, and buying train tickets.

Grameenphone: MobiCash & Gpay

Grameenphone is the largest MNO in Bangladesh. Currently, Grameenphone has 66 million registered SIM users, and self-proclaimed coverage in 95 percent of the country. They have 360 000 agent points (Bakht *et al.*, 2017). Below is a crowdsourced map visualizing coverage (OpenSignal, 2017b):



Grameenphone MobiCash

Together with DBBL, Grameenphone launched mobile banking in late 2012 (Grameenphone Corporate Communications Dept, 2012). Known as 'MobiCash,' Grameenphone's service launched by "offering banks access to its now 65 000 MobiCash outlets to serve as agents" (Parvez, Islam and Woodard, 2015, p. 21). Six MFSPs are partnered with mobiCash: Rocket, MyCash, mCash, United Commercial Bank Limited, and IFIC Mobile Banking (Parvez, Islam and Woodard, 2015; Grameen Bank, 2017). As such, Grameenphone is a "third party agent network helping to close the agent gap" (Parvez, Islam and Woodard, 2015, p. 21).

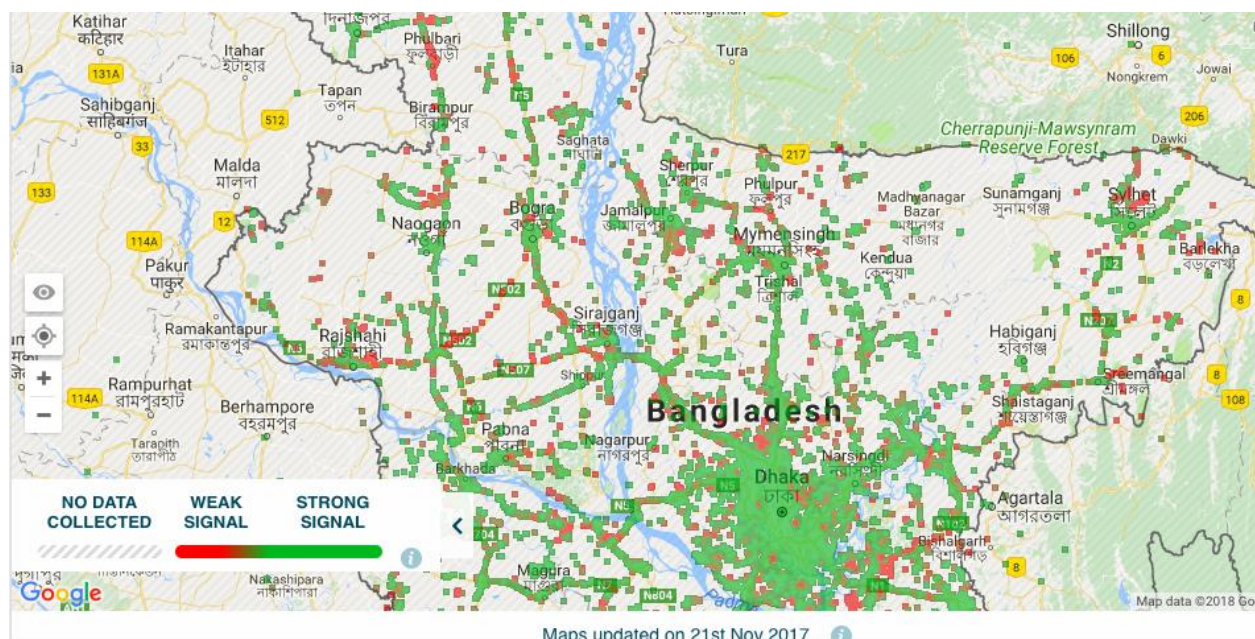
Grameenphone GPAY

In order to open a GPAY wallet, Grameenphone customers must first have a GP SIM. This process requires that customers complete a telco KYC (short) form, which includes NID, photos, and a biometric fingerprint which is electronically verified against a central NID database. Registration takes approximately 5 minutes, and SIM activation is instantaneous (Bakht *et al.*, 2017). Then, in order to open a GPAY mobile wallet, GP customers just dial *777# using their Grameenphone SIM card. The wallet is instantly approved (backed by the KYC process that beneficiaries must undergo to get a SIM) (Bakht *et al.*, 2017).

Banglalink: Mobile Cash Remittance Service

Banglalink was launched in 2005 and is one of the largest MNOs in Bangladesh. Their values include customer-focus, collaboration, entrepreneurship, and innovation, and they market themselves as “working relentlessly to bring [the] digital world to each and every customer to build a true digital Bangladesh, moving away from the traditional mobile operator to a tech company” (Banglalink, 2018a).

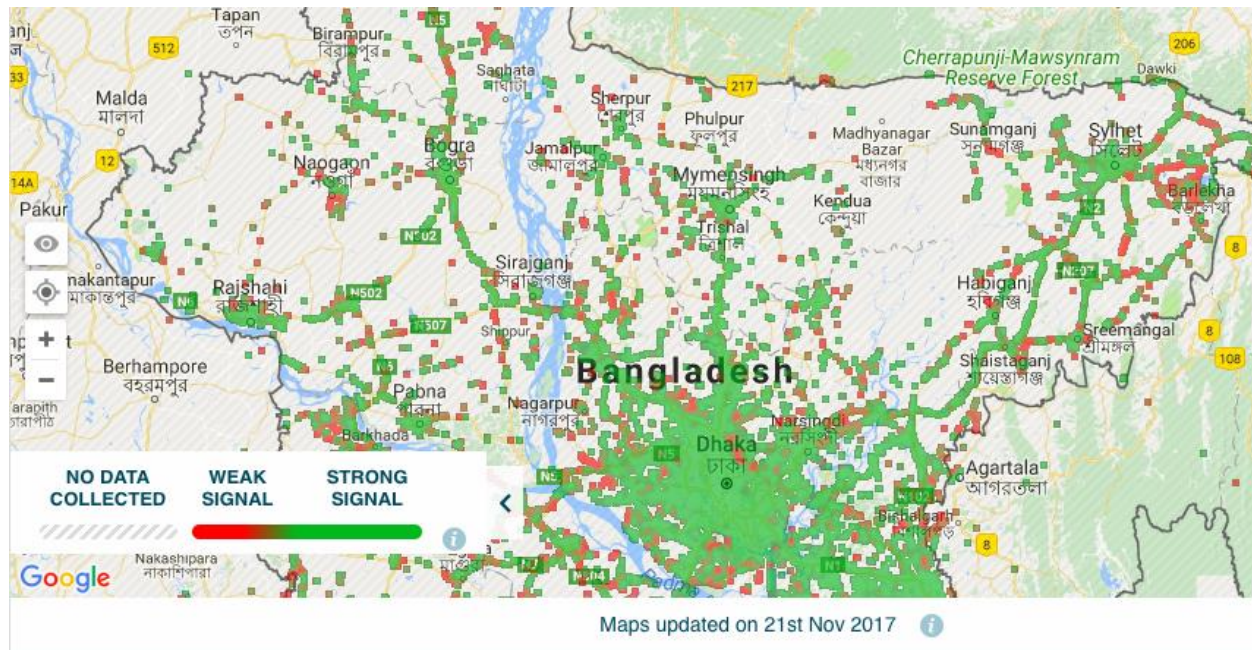
Banglalink also offers a well-established mobile cash remittance service (Banglalink, 2018b). However, due to their relatively limited network coverage in cyclone coastal areas as well as the flood plains, it was decided not to further pursue possibilities with Banglalink for the time being. Below is a crowdsourced map visualizing coverage (OpenSignal, 2017a):



Robi/AirTel: RobiCash

After a 2016 merger between AirTel and Robi (pronounced ‘ruby’), Robi became the second largest MNO in the country (Robi, 2016). Robi is very popular due to lower rates than the leading competitor,

Grameenphone. RobiCash (the mobile wallet), enables users to pay utilities, buy train tickets, and top up air time (Robi, 2018). Robi has widespread coverage throughout the country, although it is not as strong as Grameenphone. Below is a crowdsourced map visualizing coverage (OpenSignal, 2017):



Mobile Financial and Banking Services Considerations for Forecast-based Cash

Beneficiary Adoption and Implementation

Although the uptake of MFS has been swift, one barrier would be that many beneficiaries do not yet access mobile financial services. Key reasons included a lack of awareness as well as a of knowledge how to operate MFS (Parvez, Islam and Woodard, 2015). However, the landscape is shifting and high awareness of MFS (92%) is now being reported, although usage lags far below (at 33%) (Kaffenberger, 2016). Exit surveys from IFRC distributions suggest that populations that are familiar with smart phones have quick uptake of ODK and other mobile platforms. Further research suggests that implementation can be ‘cumbersome’ due to the training that can be required to familiarize and bring volunteers and beneficiaries up to speed with e-transfer technology (Bhatnagar, Wazed and Hannan, 2018, p. 7).

Beneficiary Registration

It requires a minimum of 1-3 weeks to complete a KYC and open a mobile account (Rahman, Suvro and Ahmad, 2016). These slow processing times, combined with stringent requirements hinder the potential of MFS to be used in an environment such as FbC, which requires very quick turnaround time. KYC

registration was affirmed as a major obstacle during meetings with potential FSPs, in which every provider we spoke with attested to their technological and operational capacity to distribute funds almost instantaneously, but said that they were limited by the time it took to cross-verify KYC registration. Most FSPs cited a minimum 3-10 day delay in distribution due to KYC regulations.

Beneficiary Satisfaction & Preference

It is important that interventions are designed with the beneficiary in mind. Preliminary data from IFRC exit surveys suggests that beneficiaries in some regions have expressed a preference for in kind goods rather than cash, with some participants reporting increased tension within their family after the distribution of cash. Recent research conducted for the 2018 Oxfam study affirms that women have a preference for cash-in-hand during emergency situations (from disaster to 45 days post-disaster) (Bhatnagar, Wazed and Hannan, 2018, p. 5). It is not a large leap to suggest that this preference might carry over to the window of time immediately prior to a disaster, a preference which should be taken into consideration for FbC.

However, it should also be noted that the same Oxfam study found an increasing preference for electronic transfers that correlated with an increasing amount of funds per beneficiary (Bhatnagar, Wazed and Hannan, 2018). In other words, the more that was being transferred, the greater that the preference was for electronic over cash in hand. The general consensus was that for amounts over 20,000 BDT beneficiaries showed a preference for electronic transfers, whereas they had a preference for cash in hand with small amounts (Bhatnagar, Wazed and Hannan, 2018, p. 8).

Further considerations around beneficiary preference includes the choice architecture that is available to them. Cash transfers are often lauded for their role in offering beneficiaries the dignity to make their own choice; however, CTP is often offered through just one FSP or modality. An A2I priority is to expand the choice architecture available to beneficiaries, and is doing so through the partnerships with the Ministry of Finance and the Bangladesh Bank to develop interoperable architecture that will enable transfers between banks (see: NID-enabled payment system) (A2I, 2018).

Primary research from a field visit to Chittagong district in February of 2018 revealed preferences consistent with findings from the literature review. All respondents expressed a preference for withdrawing cash or being given cash during humanitarian aid. However, several issues were additionally raised:

- ‘Not having time to go to the agent outlet’ prior to the hazard event was the oft-cited reason that people asked for cash in envelope. However, this preference changed when it was explained that it is likely that a distribution site would be set up in their village, at which point people expressed interest in encashment of electronic funds through providers such as bKash.
- People expressed a preference for encashment because there is not yet the possibility to use electronic money in rural areas.

- Though encashment was strongly favoured, there was deep-set skepticism of who would actually do the distribution. Many spoke of a distrust of local community members, government or volunteer branches, saying that they would skim money off the top and there would be no way of knowing whether you received the amount of money you were intended to receive. As such, people we spoke with expressed an interest in having external parties (especially FSPs) come in to distribute the cash in a way that was transparent and fair. This was the main reason that people were against cash-in-envelope, which they otherwise saw as being very convenient.

Beneficiary Verification

Verification must be conducted in a streamlined, quick, and thorough manner. In some cases, FSPs who had worked with RCRC in the past were frustrated by donor requirements that imposed lengthy cross-verification processes on beneficiaries. Of particular note was BPO's experience with Cyclone Mora, in which a few hundred beneficiaries who had been waiting in line for hours for their cash transfer were turned away due to the approaching cyclone.

Further considerations include the use of pin codes with beneficiaries. Representatives from both the World Bank and Access 2 Information (A2I) emphasized the limitations of pins with largely unbanked rural populations due to frequent use of the same pin combination and low literacy levels that result in beneficiaries asking agents for help to access their funds. This may leave beneficiaries vulnerable to the agent's behaviour as well as to demands from the agent to pay an additional fee for such a service (Rahman *et al.*, 2017; A2I, 2018).

There are also challenges with biometric (largely thumbprint) verification. The most significant challenges are perhaps those that are infrastructural; is there network capacity guaranteed in the area to be able to register and verify the prints? Anecdotal experience from the GRC / BDRCS FbF team also suggests that the nature of the work many beneficiaries do (farming and other manual labour), renders fingerprints challenging to capture and often requires multiple tries, thereby delaying the registration process.

Donor Requirements

MFSPs have shown to sometimes pose challenges to fulfilling donor requirements. Getting lists of recipients is not standardized within e-transfers (Rahman, Suvro and Ahmad, 2016). In conversations with MFSPs, providers were able to offer different transaction records with varying levels of detail and beneficiary data available. Likewise, privacy concerns with some of the providers meant that they did not have the ability to share important paper trails with RCRC.

Gender

There is ‘substantial difference’ in MFS adoption and usage between men and women (Kaffenberger, 2016), with women in Bangladesh having among the lowest MFS rates in the world. The difficulties for women in Bangladesh in achieving financial inclusion are highlighted in the following story:

“For Shahina, a poor woman living in the remote rural district of Noakhali in southern Bangladesh, getting cash used to be a long ordeal. Since she didn’t have a mobile wallet, Shahina used to have to travel three kilometres to visit the local bKash agent to collect remittances sent by her husband and two sons, who were working in the city. Sometimes she was unable to make the trip without someone to watch her children. The roads are often impassable after rains and the market is far away. And often the agent charges informal “service fees” before dispensing her cash.” (Johora and May, 2015)

Challenges to higher MFS adoption by women in the country include cultural barriers, a lack of women agents, less mobility, security issues (i.e. the potential for harassment after giving out one’s number), lack of formal documentation and ID needed to create accounts, lack of access to financial markets, lower phone ownership rates, higher illiteracy, lower familiarity with and usage of the internet, lack of product appeal, and lower confidence in their ability to navigate new technologies (Al-Muti, 2014; Johora and May, 2015; Shrader, 2015; Kaffenberger, 2016). However, during field visits, women expressed the same preference for encashment as their male counterparts, and no one expressed that they would feel less secure with cash.

Geographic Access

MFS have been recognised for connecting users that were previously underserved. 2015 figures show that 71 per cent of MFS users live within one kilometre of an MFS agent, whereas only 41 percent live within one kilometre of a bank branch (Parvez, Islam and Woodard, 2015; Raquib, 2015). It is estimated that there are over 540 000 MFS agents, and growing (Kaffenberger, 2016). However, coverage issues remain in some rural and remote areas (Rahman, Suvro and Ahmad, 2016).

Literacy

MFS menus are often in English and can be quite complex. This poses a barrier in a country with overall literacy levels of 72.8 percent, less for women (CIA, 2017). Approximately 20 per cent of non-users specify that they did not adopt MFS because it is ‘too difficult’ (Kaffenberger, 2016). Moreover, a lack of comfort navigating menus contributes to a reluctance to adopt MFS, as errors can result in mistaken loss of funds for populations with high financial precarity (McKee, Kaffenberger and Zimmerman, 2015; Kaffenberger, 2016).

Lock In

RCRC should also carefully monitor potential for lock in when it comes to MNOs, as the government has started restricting the number of SIMS that can be registered against one NID (currently it is capped at 15) (Ahamed, 2017).

Rural / Urban

There is no significant difference in mobile usage reported between rural and urban demographics (Kaffenberger, 2016). However, an intersectional approach shows that farmers who are poor and live remotely, and women, are those that have the least access to formal banking, and therefore stand to benefit from MFS services (Chakma and May, 2016; Chowdhury, 2017). Research has shown that the simplicity of the interface may enhance MFS use in rural regions and renders MFS ‘more effective’ for rural populations (Raquib, 2015; Chowdhury, 2017).

Recommendations

Mixed Models for Mobile Money

Consider mixed models that leverage the strengths of providers and fully take into account the needs of beneficiaries.

Pursue partnership models that offer an opportunity for innovation, such as working with a mobile network operator (MNO) in partnership with a bank or other FSP to prototype more efficient payment models. This extends to choosing a FSP based on designated criteria, and not simply based on reputation or coverage of services. The preferences and ability of beneficiaries to understand and utilize services should be heavily taken into account.

Focus on Gender

It is recommended that gender should be explicitly targeted as an important criterion in selecting an FSP for early action cash approaches. This echoes calls for a focus on gender within CTP more broadly, as it “empowers women and improves their dignity” (Rahman, Suvro and Ahmad, 2016, p. 11). Gender has also been shown to be a critical marker of difference in the adoption of mobile financial services, highlighting vulnerability for women in accessing mobile humanitarian payments and a need to focus on reaching them.

Potential actions to explicitly targeting gender include: using MFSPs that employ women agents (of which currently less than three percent are women) (Shrader, 2015), factoring gender into product design (Parvez, Islam and Woodard, 2015), adopting the MFI model of service through village meetings or ‘doorstep services’ rather than male-dominated markets and agents, creating products that are responsive to women, researching alternate ways to open a mobile banking account if beneficiaries are not in possession of the necessary government IDs, and translating phone menus to the local language (Shrader, 2015). Additionally, the decision around FSPs should take into consideration ‘gender-focused features’ such as whether or not coverage is sufficient for women to access, risk mitigation, and cost to recipients (Bhatnagar, Wazed and Hannan, 2018, pp. 9–10). Merely providing access is not enough; this

access must be backed by advocacy and opportunities for beneficiaries to enhance their financial literacy.

Access as More Than Infrastructure and Coverage

Though FSPs are succeeding in extending coverage to more remote areas, concerted efforts are needed to increase tech literacy in order for rural populations to adopt and use the technology (Johora and May, 2015). Factoring in not just physical reach to beneficiaries but also beneficiary familiarity of use of the provider and the modality is advised. For example, in a 2018 report on CTP in Bangladesh, released by Oxfam, beneficiaries expressed a clear preference for bKash or Postal Cash cards, modalities and organizations which beneficiaries trust and are familiar with. In the same report the authors affirmed the importance that “CTP have the ability to reach all the citizens of the country in a transparent and effective manner, however remotely they are located, and under whatever circumstances in a medium that is most convenient to them” (Bhatnagar, Wazed and Hannan, 2018, p. 5). Though low tech literacy is currently cited as a barrier to MMT, it is one which can be overcome with training and higher adoption rates (Bhatnagar, Wazed and Hannan, 2018).

Translating the menu into the local language and user friendliness are important to the confident adoption of MFs and could increase use by groups which are currently experiencing financial exclusion (Parvez, Islam and Woodard, 2015; Raquib, 2015). This is consistent with BDRCS’ internal recommendation to ‘provide better local language access’ from the 2015 Desk Review of MMT (IFRC, 2015).

Currently, most social protection programs across Bangladesh restrict payments to beneficiaries to a specific FSP. This increases travel distance and costs for beneficiaries, as well as reduces their dignity and ability to choose products and services that work for them (A2I, 2018). Where possible, it is recommended to consider working with multiple FSPs or interoperable systems that enable beneficiaries to receive funds through their preferred FSP.

Increased Advocacy Efforts

More advocacy is needed between humanitarian agencies, governments, and MFSPs to lobby for the need for quicker transaction times and lower fees for humanitarian CTP (Rahman, Suvro and Ahmad, 2016). As was emphasized by the 2018 Oxfam CTP report, “service providers are not used to providing cash for relief operations [or early action operations], thus their services are not adapted to humanitarian constraints and their understanding of humanitarian needs is low” (Bhatnagar, Wazed and Hannan, 2018, p. 18).

These findings from the literature review are consistent with findings from primary research while in Dhaka. Conversations and negotiations with stakeholders and potential FSPs revealed that the appetite for supporting FbC is there, but hindered by regulatory frameworks and inflexible regulations which do not allow for expedited transfers or registration processes. Continued advocacy with government ministries and the Bangladesh Central Bank to open up and show more flexibility for requests stemming

from emergency and/or humanitarian scenarios is recommended.

Different Contexts Demand Different Modalities

There are numerous modalities available to FbC, including prepaid cards, money transfers, mobile payment, e-voucher, and digital wallet. Each of these has significant benefits and drawbacks contingent on the specific circumstances of a particular payment. It is recommended that FbC programs consider using different modalities dependent on infrastructure and adaptation rates in a particular region, as well as factoring in lead time, donor requirements etc. There is no 'one size fits all' approach. A recent OXFAM report corroborated this, saying that:

“From the perspectives of recommending the preferred mode of CTP, there are no magic bullets. It is therefore recommended that the context for Cash Transfer must be carefully evaluated before deciding which mechanism should be developed and used in Bangladesh. The context of intervention, the objectives of the intervention, its scale and the design of the related activities will influence the choice of transfer mechanism that should be used giving more or less importance to [. . .] specific criteria of comparison”
(Bhatnagar, Wazed and Hannan, 2018, p. 9)

Different modalities may be appropriate for different contexts or hazards. Some hazards, such as cyclones, leave a very limited Early Action window in which to implement FbC, whereas hazards such as flooding or cold waves are able to release a forecast that permits FbC to be implemented over several days. Particularly vulnerable households or communities may not be able to access electronic payments, even if the service works for many recipients. Specific groups of beneficiaries or a specific geography may then require a separate modality as a backup, such as cash in hand. Simulations or tests of payment models within a hazard early action area can provide additional information on challenges and gaps in service.

Thus, agencies interested in using this report to inform their FSP selection for CTP programming would do well to tailor their decisions based on specific hazards, ideas of quantum, number of beneficiaries, intervention windows, intervention areas, donor requirements, and more.

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