



## Natural Calamities and Social Safety Net Programs

Evidence from a Feasibility Assessment of Mobile Cash Transfers to Vulnerable Populations in Bangladesh

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***This factsheet presents evidence from a recent IFMR LEAD-BIGD-IGC [feasibility study](#) on utilizing a mobile money platform to deliver cash transfers to vulnerable populations, in northwest Bangladesh.***

Bangladesh is among the most climate-vulnerable countries of the world today, with changes in climatic conditions threatening frequent floods, cyclones and alterations in temperatures. These changes have far-reaching implications on food security, livelihoods and infrastructure for the people of Bangladesh. They also impede its poverty alleviation efforts considerably. Poorest sections of society are often most vulnerable to the adverse effects of natural disasters, and thus building their resilience to cope with these shocks is a priority for the Government and development organisations. In this context, cash transfers have emerged as an important component of social protection and poverty reduction strategies across the globe. They offer poor and vulnerable households with means to cope with shocks and irregularities in income, and help smooth consumption during times of distress.

Traditionally, these transfers are provided in the form of physical cash, accompanied by in-kind support such as food and shelter<sup>1</sup>. However, physical cash transfers carry high risks of loss, theft and leakage (Muralidharan et al., 2014). Moreover, transportation of physical cash to remote areas is time-consuming and costly, and can impede disaster-relief efforts. A possible solution to increase the efficiency of these monetary aids is to deliver them via a digital platform such as *mobile money*- usage of mobile phones to provide access to financial services. Bangladesh has witnessed a rapid uptake of mobile money services in a short period of time, driven by the expansion of a mobile money product 'bKash', which is estimated to be used by 22 percent of its population (Chen and Rasmussen, 2014)<sup>2</sup>. This emerging trend provides policymakers in Bangladesh with a potential mechanism to address the challenges of financial exclusion and vulnerability, by leveraging the economies of digitisation.

### Shocks and Vulnerability

Populations living in Northwest Bangladesh (in particular, the districts of greater Rangpur -Gaibandha, Kurigram, Lalmonirhat, Nilphamari, and Rangpur), are recurrently exposed to natural disasters that heavily undermine the local economy. These adversities consist of seasonal pre-harvest food crises (known as "*monga*") that are further exacerbated by recurrent floods and soil erosion. The consequences of pre-harvest food crises are amplified in the *char* ('small islands') areas, particularly those located in proximity of the Jamuna and Teesta rivers. Findings from our study corroborate the adverse effects of these phenomena. In our

#### The Study

**Period:** September 2015- February 2016

**NGO partner:** Gana Unnayan Kendra (GUK),

#### Data Sources:

Baseline Survey of 200 individuals across four Union Parishads of district Garibandha- 50 each in Fulchari, Gajaria Union, Mullar Char and Gideri.

Eight Focus Group Discussions and informal discussions with personnel at GUK, and with bKash agents in the same areas.

Follow-up survey of 100 individuals across Gideri and Fulchari.

<sup>1</sup> <http://blog.brac.net/2016/03/no-lines-no-relief-camp-4-lessons-on-using-mobile-money-for-post-flood-relief/>

<sup>2</sup> According to BRAC, Phone ownership rates among men are 76 per cent, while for women 46 per cent, see <http://blog.brac.net/2015/01/mobile-money-needs-the-support-of-grassroots-organisations-to-reach-its-potential/>.

baseline survey, nearly 90 percent of respondents reported exposure to floods in the preceding 12 months. In the aftermath of floods, they experienced a series of losses ranging from damages to crops losses and property, and death of cattle. The health conditions of inhabitants were also affected adversely, owing to a deterioration in water quality and sanitation services during floods.

## Key Findings

**Limited and ineffective coping strategies:** In the event of shocks, the most common coping strategy adopted by respondents in our sample was to reduce consumption (as indicated by nearly 50 percent of respondents). This second most prevalent coping strategy was assistance from relatives, followed by borrowings from a formal financial institution. During the *monga* season, we found that weekly expenditures of households were significantly lower than the pre-*monga* season, revealing the financial hardship experienced by respondents during this period. However, government transfers delivered either through NGOs or Union Parishads reached only a small share of this population (14.5 percent in our sample). Moreover, access to transfers appears sensitive to household location. Thus, the probability of a household receiving a transfer in the *Char* areas, which are quite remote, is lower than that of households in other areas.

**Household characteristics and saving behaviour:** An important finding from our study is that a household's coping strategies are linked to the severity of shocks experienced by it. We also studied whether subjects who experienced the shock more intensely are more likely to save than the subjects who experienced the shock less intensely. Our study finds that households that experience shocks of a higher intensity, are more likely to save with a financial institution. Moreover, wealthier households experience shocks less severely as compared to poorer households. Another important insight from the study is regarding internal household dynamics. Comparing the bargaining power of males and females within a household using an average 'bargaining power' index, we find that females have a significantly lower bargaining power than men in the household, and this difference is statistically significant.

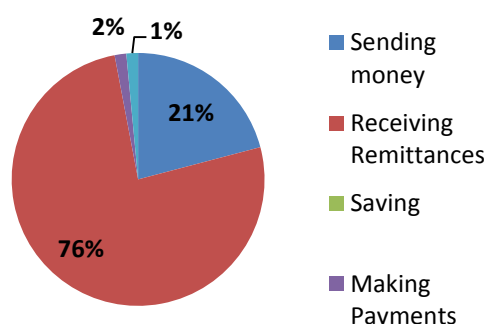


Figure 1: Purpose of using bKash

### Mobile phone penetration and awareness of bKash:

Among the 200 respondents interviewed in the baseline study, 89 percent reported owning a mobile phone. Mobile phones are mostly used to make calls, while only a small share of respondents use them to send texts or for accessing the internet. In addition, while awareness about the mobile money service 'bKash' is high, only 34 percent of respondents utilize the service. More than a third of bKash users (70 percent) use the service through an agent, either in their own village or in another village. Figure 1 suggests that 76 percent of respondents use bKash to receive remittances. However, a very small proportion of respondents use bKash for saving purposes.

## Policy Implications

Results from the feasibility study suggest that poor and vulnerable populations in northwest Bangladesh require assistance to cope with natural disasters in a more efficient way. While a number of alternative disaster relief mechanisms and channels exist at present, their outreach appears to be limited. Against this background, our study suggests that a mobile money service such as bKash that has a strong and rapidly growing user base, can serve as an alternate channel for providing monetary relief to vulnerable communities. Currently, mobile money is primarily used to receive remittances and most users rely on the assistance of agents for these services. Thus, there is significant potential for expanding the outreach of financial services such as savings products through this channel. Moreover, a commitment savings device can help respondents overcome their present bias, and encourage them to save and thus smooth consumption round the year, as we find that 33 percent of respondents in our sample display a present-bias. While further research is required to design interventions that factor in the timing of such relief, the financial capability of agents and recipients, among others, our feasibility study suggests that there is considerable scope for the expansion of mobile money services for government-to-person payments in the areas of the study. Such an initiative can lay the first step towards financial inclusion for populations that are largely excluded from the formal financial sector.

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