

# Anticipatory Cash Transfers in Climate Disaster Response Amendment to the Pre-analysis Plan

Stefan Dercon<sup>1</sup>, Ruth Hill<sup>2</sup>, and Ashley Pople<sup>\*1</sup>

<sup>1</sup>*University of Oxford*

<sup>2</sup>*Centre for Disaster Protection*

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## Abstract

This document supplements the original pre-analysis plan (available at <https://www.socialscisceregistry.org/trials/6576>) last updated November 30, 2020. It follows preparatory analysis of anonymised data. Blind to the outcomes, we revise the construction of treatment and control groups. Blind to treatment status, we update the measurement of some outcomes.

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\*Corresponding author: Ashley Pople; [ashley.pople@economics.ox.ac.uk](mailto:ashley.pople@economics.ox.ac.uk)

# 1 Amendments to the experimental design

Following preparatory analysis specified in our pre-analysis plan (PAP), we used anonymised survey data without outcome variables to assess the construction of treatment and control groups. We verified the treatment status of households based on survey responses and revised the treatment and control groups accordingly.

There are administrative reasons why households initially included in our control sample may have received a transfer, for example unaccounted activation of their bKash account. On the other hand, households previously included in a treatment category may not have received the transfer as planned. We will check whether results are robust to treatment and control groups defined according to the initial sampling categories.

## 1.1 Construction of the treatment group

Consistent with the original definition of the treatment group, we update households in the treatment group based on survey responses. We include households that verify they received a transfer of 4,500 Taka from WFP in July, but were initially sampled in a control category. We will exclude households with an unknown transfer date from empirical specifications 2 and 3, as these models distinguish between treatment groups based on timing of the cash transfer.

## 1.2 Construction of the control group

We revise the control group consistent with the definition in the PAP. We include any households in a pre-specified treatment category that reported receiving no transfer. Almost all households in the pre-specified control group reported having an active bKash account at the time of the survey. This is in contrast to the the pre-specified sample that categorised most control group households as having a frozen bKash account. We will check our results are robust to including or excluding the remaining control households that report either a frozen bKash account or the wrong mobile wallet in the survey.

### 1.3 Alternative group definitions

Table 1 provides revised definitions of the alternative treatment and control groups following the preparatory analysis. These will continue to be used for robustness to test whether selection by cash transfer date or digital wallet use drives results.

Table 1: Alternative construction of treatment and control groups

Alternative definition	Affected group	Motivation	New Definition
1	Treatment and control groups	Households that use mobile money accounts frequently may differ from those that do not or have frozen accounts. We restrict our sample to frequent mobile money account users so groups are more similar in terms of digital wallet use.	We restrict the sample to households that report using a digital wallet within 3 months of the survey date (control group) or receiving the transfer (treatment group).
2	Treatment group	Households that received transfers on July 30 may not be comparable to the control group because they needed to reactivate or activate a new bKash account.	We exclude households that received a transfer on July 30 from the treatment group.
3	Treatment and control groups	Households that use mobile money accounts infrequently may differ from those that do so regularly. We restrict our sample to infrequent mobile money account users so the groups are more similar in terms of digital wallet use.	We exclude households that report using a digital wallet within 6 months of the survey date (control group) or receiving the transfer (treatment group).

## 2 Amendments to the measurement of outcomes and covariates

We will check robustness by winsorising continuous outcome variables at the 95th percentile to test whether outliers drive results. Table 2 shows amendments to the measurement of primary outcomes.

Table 2: Amendments to primary outcomes

Outcome	Initial construction	Amendment	Reason
Children's food consumption	Number of meals consumed by children in the previous day.	Dummy variable for whether children consumed 3 or more meals in the previous day.	Low variation over distribution since most report three meals.

Table 3 shows amendments or clarifications to secondary outcomes.

Table 3: Amendments to secondary outcomes

Outcome	Initial construction	Amendment	Reason
Costly borrowing	A standardised, weighted index of the following two variables:  1. How much was borrowed in the last two months (Taka)  2. The highest interest rate charged (percent per month)	We separate this index into independent secondary outcomes for each each variable in the initial construction:  1. Borrowing amount  2. Cost of borrowing  For variable 2, we convert annually reported interest rates to a monthly rate assuming interest is compounded monthly.	Few respondents reported an interest rate for variable 2 relative to an amount borrowed for variable 1 in the initial composite index.  Clarification for transparency.
Crowding out of remittances	The amount received in remittances in the last two months (Taka).	Dummy variable for whether household received remittances in the last two months.	Distribution was heavily skewed since most households report zero remittances.
Earned income	A standardised weighted index of the following two variables:  1. Able to replant (dummy variable taking the value of 1 if the household reported replanting)  2. Number of hours worked for an income in the last 7 days (hours)	We revise variables used to construct the index:  1. Able to replant (dummy variable taking the value of 1 if the household reported replanting lost plots or not losing any cultivated plots).  2. Number of hours worked for an income in the last 7 days divided by number of working age household members (hours/working age household member). Working age is defined as between 15 and 60 years old.	1. Relatively few respondents reported replanting lost crops because many did not report losing any cultivated plots.  2. For comparison across households.

Table 4 shows amendments to covariate measurement. We pre-specify two new covariates to account for FAO and UNFPA interventions that reached a small proportion of our sample.

Table 4: Amendments to covariate measurement

Variable	Initial construction	Amendment	Reason
Education	Highest level of education completed (0-9).	Dummy variable for whether respondent completed primary school.	Distribution was heavily skewed since most respondents report very low education levels.
FAO feed/storage	None	Dummy variable for whether household received animal feed and/or storage from FAO.	To capture fixed effects for recipients of the FAO intervention.
UNFPA dignity kit	None	Dummy variable for whether household received dignity kit from UNFPA.	To capture fixed effects for recipients of the UNFPA intervention.

### 3 Empirical strategy

There are no changes to our model specifications. We maintain the inclusion of Union fixed effects and our approach to selecting covariates described in the PAP. We will no longer explore heterogeneity in terms of the gender of respondent since 97% of respondents were female.