

The Importance of Being Timely

Anticipatory cash transfers in climate disaster response

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Climate disasters have large and long-lasting effects on welfare and development



Overview of the presentation

1. **A new approach: Anticipatory action**
2. **An impact evaluation:** Measuring the impact of anticipatory cash transfers
3. **Policy takeaways**

1. A new approach: Anticipatory action

A reactive humanitarian system

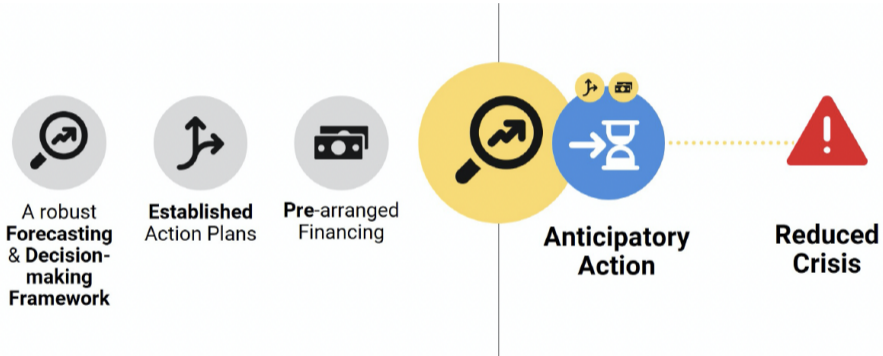


Usually, the humanitarian response is ex-post, based on appeals.

It is often late, politicised and insufficient.

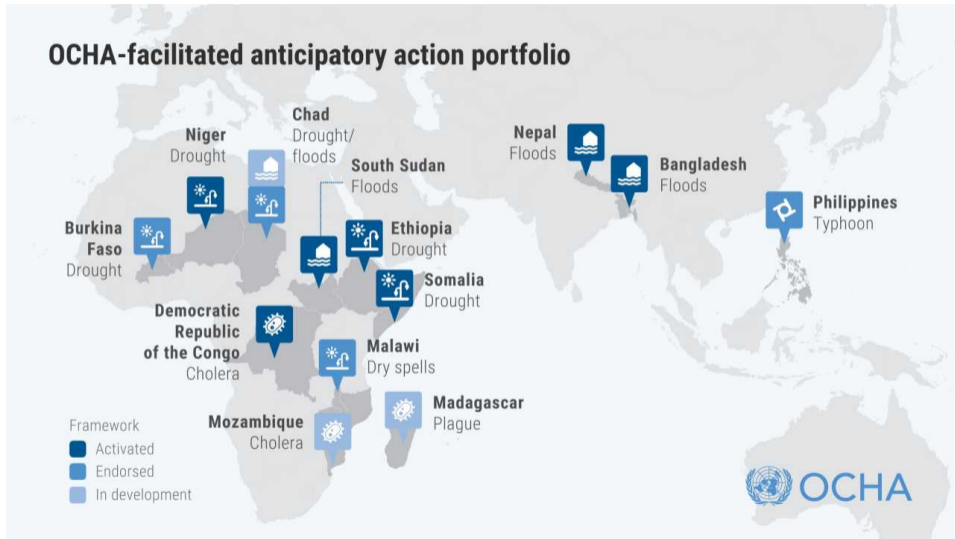
An anticipatory humanitarian system

How can we design systems that are fast, reliable and well-targeted?

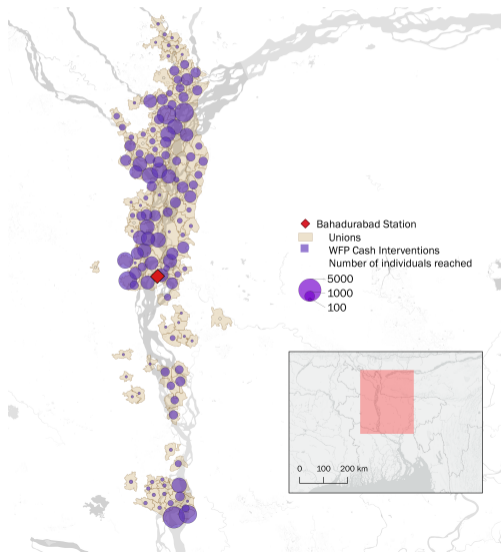


- Our paper showcases a new approach to responding to severe flooding in Bangladesh based on these design principles...
- ... And a (rare) attempt to evaluate the effectiveness of a crisis response.

An anticipatory, rather than reactive, approach to humanitarian aid

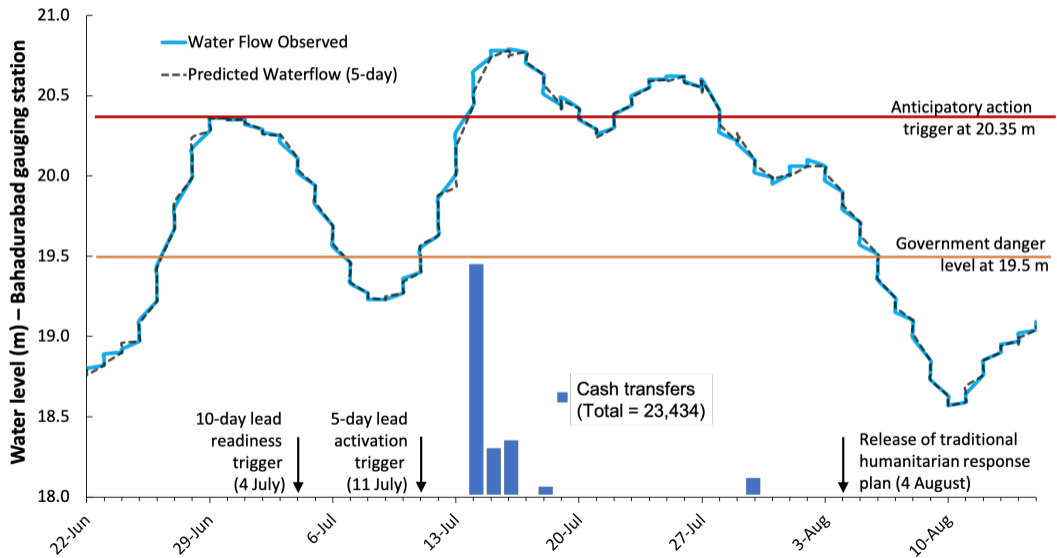


In 2020, Bangladesh experienced the second highest and protracted flood in the past two decades, with 5.5 million people affected



WFP sent 4,500 Taka (\$53) using mobile money to 23,000 households in 131 unions along the Jamuna River in Bangladesh prior to and during the flood.

Forecast-based triggers, pre-arranged financing and five days of cash transfers



2. An impact evaluation: Measuring the impact of anticipatory cash transfers

There are large evidence gaps on crisis response

- Strong evidence that *regular* cash transfers help cushion the negative effects of shocks (e.g. Janvry et al., 2006; Aker et al., 2016; Jensen et al., 2017; Adhvaryu et al., 2022; Bottan et al., 2021)

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 3. Impact of humanitarian interventions (Puri et al., 2017; Jeong & Trako, 2022)

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 2. Timing of cash transfers relative to climate shocks (Jeong and Trako, 2022)
 3. Impact of humanitarian interventions (Puri et al., 2017; Jeong & Trako, 202)
- We examine the impacts of a one-off cash transfer delivered to vulnerable households *forecast* to experience extreme flooding in Bangladesh.

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1. A small anticipatory cash transfer improves welfare, even three months later.
2. Effects are surprisingly broad for a small transfer received during protracted flooding.
3. The choice set of actions available to households was expanded at a critical juncture in time, altering their welfare trajectory.
4. The gains from acting early are significant - benefits accrue in the months before a conventional humanitarian response

A quasi-experimental design with three data sources

9,000 phone surveys 3 months later

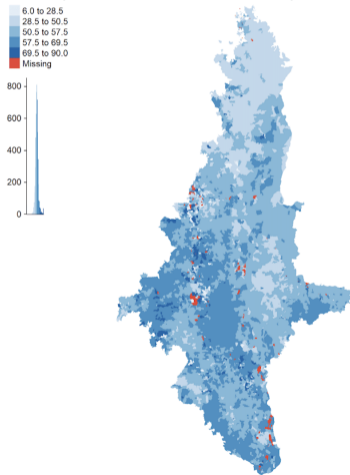
- Vulnerable households were identified in flood-affected areas using pre-existing lists, but only one mobile money provider could be used.
- Otherwise comparable households with incorrect mobile wallets or inactive bKash accounts were excluded.

Second round of phone surveys 5 months later

Satellite flood data

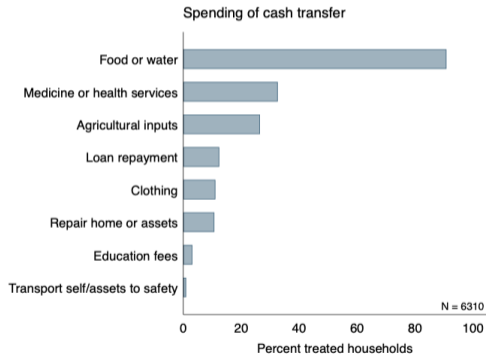
- Identifies the date of local peak flooding to complement timing analysis

*Variation in local flood peak date
(days since 6 June, 2020)*

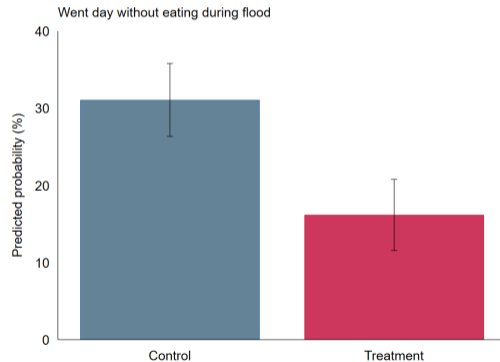


Cash was spent on food and reduced food insecurity during the floods

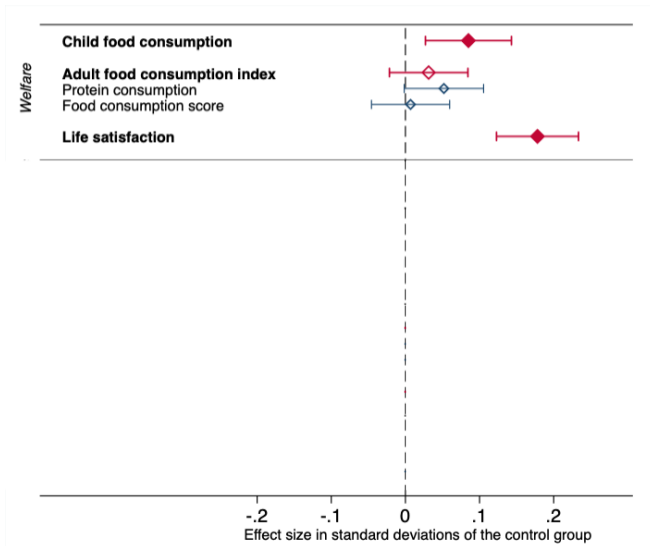
Most households used the cash transfer to buy food or water



Treated households were less likely to go without eating during the flood

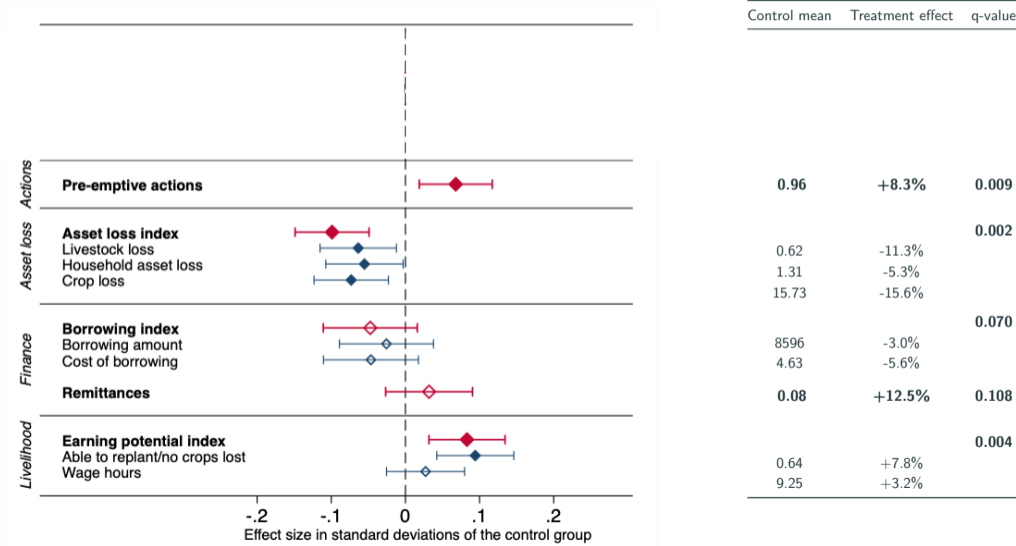


Anticipatory cash improves welfare, even three months later

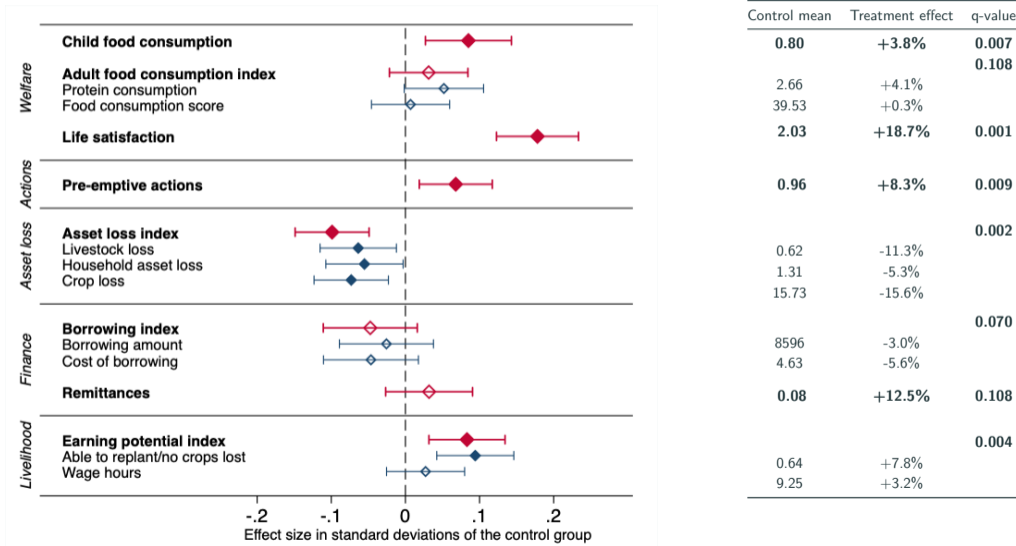


Control mean	Treatment effect	q-value
0.80	+3.8%	0.007
		0.108
2.66	+4.1%	
39.53	+0.3%	
2.03	+18.7%	0.001

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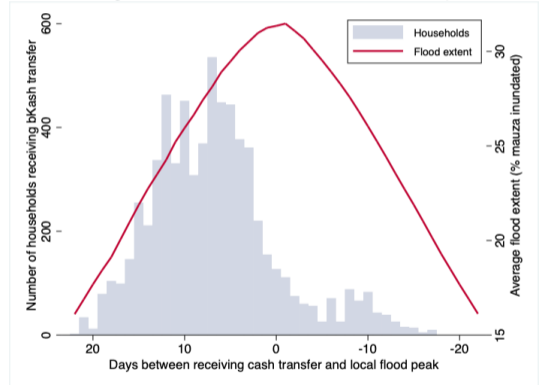
Anticipatory cash improves welfare, even three months later



Does the speed of delivering anticipatory cash matter?

- We compare the date of cash transfers to the timing of the local flood peak using satellite data.
- We find that for every day earlier that the cash is sent relative to the flood peak **boosts adult food consumption, but also borrowing.**

Timing of transfer relative to local flood peak



3. Policy takeaways

The timing of cash transfers matters for crisis response



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1. A small anticipatory cash transfer **improves welfare** during the flood and three months later. **Failing to act early has a real cost.**
2. The anticipatory cash transfer enabled households **to take different decisions** that altered the flood impacts at a critical juncture in time.
3. **Speed of delivery also matters.** But pre-positioning anticipatory cash transfers requires a lot of upfront work.