Conditional cash transfers, child work and schooling: mixed methods evidence from the United Republic of Tanzania

WIDER Seminar Series with Valeria Groppo
Discussant Milla Nyyssölä
Conditional Cash Transfers, Child Work and Schooling: Mixed Methods Evidence from the United Republic of Tanzania

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Outline

• Introduction
• Literature & contribution
• Productive Social Safety Net (PSSN)
• Evaluation timeline
• Methodology
• Results
• Conclusions
Introduction

African non-contributory social protection programmes by start date

Introduction – Research question

Cash transfer programmes contributed to poverty reduction and human capital development (e.g. Bastagli et al. 2016), but can they also reduce child labour?

With funding from the United States Department of Labor, we evaluated the impact of the United Republic of Tanzania’s Productive Social Safety Net (PSSN).
Introduction - context

The prevalence of child labour is highest in Africa, at 19.6% (ILO 2017)
  • Nearly 30% of Tanzanian children engage in child labour (ILO 2016)

Tanzania Social Action Fund (TASAF)
  TASAF I: 2000-2005
  TASAF II: 2005-2013
  TASAF III/PSSN
  • Objectives: increase *income and consumption*, improve ability to *cope with shocks*, improve *education*
  • Components, during study period: (1) cash transfer; (2) public works
  • Coverage: national, 15% population (6 million people) in 2016

Tanzania, Handeni district, endline data collection, 2017.
Introduction - Mechanisms

Theoretically, when households receives **cash transfers:**

- *Income effect* increases schooling and reduces the demand for child work.
- However, household *productive investments* may also increase, which may increase the demand for child work.

Children may be requested to work for the household, in order to *compensate* for adult time spent in *public works.*

→ The impact of PSSN on child work and schooling is *a priori* undetermined.
Literature – Cash transfers

Child work

*CCTs* tend to reduce both child participation and hours in economic activities and household chores (Dammert et al. 2018, de Hoop & Rosati 2014, Fiszbein et al. 2009, Skoufias et al. 2001).

*UCTs* had more mixed impacts:

- Child participation in economic activities declined in some settings, e.g. Ecuador (Edmonds & Schady 2012), but remained unchanged in others, e.g. Malawi (de Hoop et al. 2019).
- In some instances, child work increased, including hazardous work or excessive hours (de Hoop et al. 2019).

Schooling

Both *CCTs* and *UCTs* improve school enrolment and attendance (Baird et al. 2014, Handa et al. 2018).
The evidence is mixed (Dammert et al. 2018):

• Some studies finding reductions in child work (e.g. Hoddinott et al. 2009)

• Others finding increased child participation in household chores or school absenteeism (e.g. Rosas & Sabarwal 2016).
Our contribution

• We use **mixed methods**
  • Cluster Randomized Controlled Trial (cRCT)
  • In-Depth Interviews and Focus Group Discussions with children and caregivers

• Our study adds to the relatively thin literature on **conditional cash transfers in Africa**

• We analyze programme effects on a range of work types, including exposure to **hazards**
The PSSN programme

CASH TRANSFERS*

TZS10,000
(USD5) per household (HH)

TZS4,000
(USD1.8) per HH with children aged 0-17

TZS4,000
(USD1.8) per HH with children aged 0-5 or pregnant women

TZS2,000
(USD0.9) per child (up to TZS8,000)

TZS4,000-6,000
(USD1.8-2.7) per child (up to TZS12,000)

*Paid bi-monthly. Monthly amounts shown.

CONDITION: HEALTH COMPLIANCE

CONDITION: PRIMARY SCHOOL ATTENDANCE

CONDITION: SECONDARY SCHOOL ATTENDANCE

PUBLIC WORKS

TZS2,300
(USD1.4) per day per adult able to work
(up to 60 days in 4 months)
The evaluation
(UNICEF Innocenti – Policy Research for Development, REPOA)

Tanzania, Handeni district, endline data collection, 2017.
Timeline

2014-2015
Targeting & location selection

- Eligibility: extreme poverty; ‘ability to work’.
- Eight mainland PAAs, plus one in Zanzibar
- 102 villages

May-July 2015
Baseline Survey (quant)
- Random selection of 15-18 households per village

August 2015
Random assignment (lottery)
- PSSN villages (61 in total, of which 35 cash only, 26 cash & public works)
- Control (delayed treatment, 41 villages)

September-October 2015
First cash transfer in PSSN villages

April-June 2017
Endline Survey (quant)

September-October 2017
Qualitative data collection
Sample and attrition

Children aged 3-15 years at baseline (5-17 at endline)

Of the 4,246 children observed at baseline, 3,516 (83%) were observed at endline.

• Attrition is not significantly different in control vs treatment villages.

Most baseline characteristics are balanced in the full sample at baseline, as well as in the reduced panel sample at endline.

• One main exception (Female indicator)
## Baseline balance

<table>
<thead>
<tr>
<th>Panel A. Household level (determinants of transfer size)</th>
<th>Full baseline sample</th>
<th>Attritor</th>
<th>Panel</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Control mean</td>
<td>Difference T-C</td>
<td>Difference T-C</td>
</tr>
<tr>
<td></td>
<td>(S.D.)</td>
<td>[p-value]</td>
<td>[p-value]</td>
</tr>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
</tr>
</tbody>
</table>

- **Any child <5 years of age**
  - Control mean: 0.581
  - Difference T-C: -0.010
  - Difference T-C: -0.004
  - Difference T-C: -0.011
  - (S.D.): 0.494
  - [p-value]: 0.707
  - [p-value]: 0.956
  - [p-value]: 0.684

- **Any child aged 5–17 years**
  - Control mean: 0.963
  - Difference T-C: -0.000
  - Difference T-C: 0.042
  - Difference T-C: -0.004
  - (S.D.): 0.190
  - [p-value]: 0.981
  - [p-value]: 0.307
  - [p-value]: 0.665

- **Number of children attending primary school**
  - Control mean: 1.526
  - Difference T-C: -0.105
  - Difference T-C: 0.105
  - Difference T-C: -0.126
  - (S.D.): 1.284
  - [p-value]: 0.229
  - [p-value]: 0.547
  - [p-value]: 0.177

- **Number of children attending secondary school**
  - Control mean: 0.390
  - Difference T-C: 0.030
  - Difference T-C: 0.320**
  - Difference T-C: -0.003
  - (S.D.): 0.805
  - [p-value]: 0.581
  - [p-value]: 0.011
  - [p-value]: 0.960

- **N (households)**
  - Full baseline sample: 587
  - Attritor: 1,460
  - Panel: 153
  - Total: 1,307
### Panel B. Household level (productive activities)

<table>
<thead>
<tr>
<th>Activity</th>
<th>Full baseline sample</th>
<th>Attritor</th>
<th>Panel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owned/operated any land last growing season</td>
<td>0.751</td>
<td>0.042</td>
<td>0.083</td>
</tr>
<tr>
<td></td>
<td>(0.433)</td>
<td>[0.202]</td>
<td>[0.207]</td>
</tr>
<tr>
<td>Owns any livestock</td>
<td>0.576</td>
<td>-0.030</td>
<td>0.087</td>
</tr>
<tr>
<td></td>
<td>(0.495)</td>
<td>[0.406]</td>
<td>[0.228]</td>
</tr>
<tr>
<td>Owned/operated any non-farm business past 12 months</td>
<td>0.250</td>
<td>0.011</td>
<td>0.112*</td>
</tr>
<tr>
<td></td>
<td>(0.434)</td>
<td>[0.667]</td>
<td>[0.075]</td>
</tr>
<tr>
<td>N (households)</td>
<td>587</td>
<td>1,460</td>
<td>153</td>
</tr>
</tbody>
</table>

### Panel C. Child level

<table>
<thead>
<tr>
<th>Variable</th>
<th>Full baseline sample</th>
<th>Attritor</th>
<th>Panel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>8.792</td>
<td>0.086</td>
<td>0.278</td>
</tr>
<tr>
<td></td>
<td>(3.694)</td>
<td>[0.453]</td>
<td>[0.416]</td>
</tr>
<tr>
<td>Female</td>
<td>0.488</td>
<td>0.023</td>
<td>-0.003</td>
</tr>
<tr>
<td></td>
<td>(0.500)</td>
<td>[0.115]</td>
<td>[0.943]</td>
</tr>
<tr>
<td>Literacy</td>
<td>0.371</td>
<td>0.007</td>
<td>0.016</td>
</tr>
<tr>
<td></td>
<td>(0.483)</td>
<td>[0.737]</td>
<td>[0.681]</td>
</tr>
<tr>
<td>Attends school</td>
<td>0.505</td>
<td>0.008</td>
<td>0.020</td>
</tr>
<tr>
<td></td>
<td>(0.500)</td>
<td>[0.700]</td>
<td>[0.650]</td>
</tr>
</tbody>
</table>

### Panel D. Child attrition

<table>
<thead>
<tr>
<th>Variable</th>
<th>Full baseline sample</th>
<th>Attritor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attrited</td>
<td>0.168</td>
<td>0.013</td>
</tr>
<tr>
<td></td>
<td>(0.374)</td>
<td>[0.467]</td>
</tr>
<tr>
<td>N (children)</td>
<td>1,780</td>
<td>4,246</td>
</tr>
</tbody>
</table>

Panel C. Child level:

- Age: 8.792 (Standard Deviation: 3.694, p-value: 0.614)
- Female: 0.488 (Standard Deviation: 0.500, p-value: 0.079)
- Literacy: 0.371 (Standard Deviation: 0.483, p-value: 0.760)
- Attends school: 0.505 (Standard Deviation: 0.500, p-value: 0.739)

Panel D. Child attrition:

- Attrited: 0.168 (Standard Deviation: 0.374, p-value: 0.467)
Methods - Quantitative

Information on most child activities is captured at endline only. So, we use cross-sectional models:

\[ \text{Outcome}_{iv} = \beta_1 + \beta_2 P_v + \beta_3' X_{iv} + \epsilon_{iv} \]

**Outcome}_{iv} : outcome variable for child i living in village v  
\( P_v \) : equal to one if PSSN village (cash transfers only, or cash transfers & public works)  
\( X_{iv} \) : baseline control variables (gender, age, determinants of transfer size, district fixed effects)  
\( \epsilon_{iv} \) : error term  
\( \beta_2 \) : overall impact of the PSSN on child outcomes

OLS with robust standard errors clustered at the village level.  
Given non-universal take-up, estimated impacts should be interpreted as intent-to-treat effects.
Methods - Qualitative

• Three purposively selected mainland PAAs, plus the one Zanzibar PAA.

• Two villages for each PAA (one from the treatment, one from control).

• IDIs and FGDs with children and with caregivers:
  ✓ Children’s FGDs used a **photovoice** technique
  ✓ In each village, six IDIs (three with children 11-17 years old, three with caregivers, all selected from the quantitative sample) and two FGDs (one with children, one with caregivers).
  ✓ Consent provided by all caregivers, as well as from the caregivers of children who participated in IDIs and FGDs. All children provided assent.
Results

Tanzania, Handeni district, endline data collection, 2017.
PSSN determined a change in child work type

N = 3,516 children aged 5-17 years

*p <0.1, **p <0.05
Qualitative insights on PSSN & child work

“The PSSN programme has given children **time to rest** for some days without involvement in casual works. In the previous time, children were forced to work every day or every week so as to get their needs, but now as we are assured of providing them with school requirement so they may spend even a week without working in casual labours.”

- Caregiver FGD participant

“On one hand, I get more time now. If I want, I can spend more time because we have labourers who work in our farms, my grandfather use PSSN money to employ casuals [day labourers] to help us in farming. On the other hand, [PSSN] money has reduced my time to search for casual works because if I fail to get money, I can use [PSSN] money. I was spending one day per week for casual works before PSSN, but after PSSN I spend one day per month on casual works.”

- Child FGD participant

“PSSN has not changed what I have been doing before. I am still doing charcoal business, herding cattle and sometimes selling sisal poles. The activities have neither increased nor decreased because of PSSN.”

- 15-year-old-boy
PSSN did not affect child hazards, health

N = 3,516 children aged 5-17 years
PSSN impacts on hazards, by type

- Carrying heavy loads
- Working with dangerous tools
- Dusts, fumes or gases
- Extreme temperatures
- Loud noise or vibrations
- Work at night
- Bullying, intimidation or violence
- Bars, hotels or places of entertainment

N = 3,516 children aged 5-17 years

*p <0.1, **p <0.05
Work outside the household is riskier

“I have seen children abused by landlords when engaged in casual works in the farms, example during weeding activities, the landlord abuses children and sometimes refuse to pay them their money after they have completed the work.”

- Child FGD participant

“When children engaged in casual work like cultivation without supervision from their parents, they may be influenced by other children on bad behaviour like theft, disobedient or alcoholism, which is not good.”

- Caregiver FGD participant
PSSN improved education outcomes

![Bar chart showing improvements in education outcomes with significance levels.](chart.png)

- Currently attending school: 0.052**
- Can read and write: 0.048**
- Highest grade completed: 0.174**
- Attended school regularly, past week: -0.003
- Spent at least one hour studying, past week: 0.049**
- Dropped out of school between baseline and endline: -0.017

N = 3,516 children aged 5-17 years

*p <0.1, **p <0.05
Qualitative insights on PSSN & schooling

“The casual labourers that I am employing have given a relief to my [grand]children. As they spend less time in farming activities now than it used to be before PSSN, they can use that time to work for their own consumption or concentrate on studies.”

- Caregiver

“There is no such a segregation as children from well-off household and poor households. All children are equal now; they all get uniforms and are smart in school uniforms.”

- Caregiver FGD participant

“I have to work in grandmother’s business. I lose concentration in academics because I have to spend time in the business instead of studying. I get tired, particularly during examination time.”

- Child FGD participant
Impacts on child work, by gender

N = 3,516 children (1,728 female, 1,788 male) aged 5-17 years

*p <0.1, **p <0.05, ***p <0.005
Education impacts, by gender

N = 3,516 children
(1,728 female, 1,788 male)
aged 5-17 years

*p <0.1, **p <0.05
Conclusions

• PSSN had **beneficial effects on child work**, with substitution effects stronger for male and older children

• PSSN **improved child education**

• Important to **monitor unintended effects** of programmes that expand household productive capacity

• Important to use **mixed methods**

• **Complementary interventions** could be considered to enhance education improvements
  • Information to caregivers on the importance of education and the risks related to child labour
Thank you!
References


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