DEEP WORKING PAPER 01- Annexes

What works to reduce extreme poverty? A selective review

Annexes

Molly Doruska and John Hoddinott

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About DEEP

Our mission is to build evidence, insights, and solutions that help end extreme poverty globally.

We aim to contribute to new global and national data and evidence that governments, decision makers, citizens and researchers can use to improve people's lives and support the world's poorest people in their efforts to escape extreme poverty.

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Annex A List of selected studies

1. FERRÉ, C. and SHARIF, I. (2014) 'Can conditional cash transfers improve education and nutrition outcomes for poor children in Bangladesh? Evidence from a pilot project', *Policy Research Working Paper*, World Bank.

2. PRADHAN, M. and SULAIMAN, J. (2014) 'A review of the vulnerable group development (VGD) program for protection and promotion of poor households in Bangladesh', *International Journal of Social Work and Human Services Practice* 2, pp. 30–39.

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Annex C Study summaries

C.1 Bangladesh

C.1.1 Social protection

C.1.1.1 Ferré and Sharif (2014) 'Can Conditional Cash Transfers Improve Education and Nutrition Outcomes for Poor Children in Bangladesh? Evidence from a Pilot Project'

Intervention

- CCT programme in Jaldaka, Hatibandha, and Marayanganj, Bangladesh
- Targeted poor mothers and children
- Goals: reduce poverty, increase school attendance, improve nutritional status of children
- Ran from April 2012 to December 2013
- Eligibility determined by a proxy means test – must have one child 0–36 months or one primary school-aged child
- Included a monthly nutrition and an education benefit
- BDT 400 (US$ 5) per household if there was one or more children 0–36 months in age
- BDT 400 (US$ 5) per household if there was one or more primary school-aged children
- Payment was received using an electronic card at the Post Office
- Conditions:
    - Children 0–36 months must attend monthly growth monitoring and their caregiver must attend nutrition sessions
    - 80% school attendance was required for children in primary school

Sample/evaluation design

- Impact evaluation only conducted in Jaldhaka and Narayanganj City
- Baseline census survey conducted in May/June 2011
- Random sample of 3,000 households was drawn from the census and interviewed
    - 2,400 households from Jaldhaka and 600 from Narayanganj City
- Endline survey done in May/June 2013
    - Panel with both baseline and endline had 2,718 households
- Difference-in-difference
- Use a fuzzy RD as a robustness check

Results

Consumption

- Household consumption increased by BDT 379, significant at the 10% level

- Food consumption increased by BDT 337, significant at the 1% level
- Protein consumption (meat, eggs, dairy, fish, and pulses) increased by BDT 174 for households receiving the nutrition benefit, significant at the 1% level
- Protein consumption (meat, eggs, dairy, fish, and pulses) increased by BDT 118 for households receiving the education benefit, significant at the 5% level

Anything else

- No significant impact on school attendance
- Wasting reduced by 12.5 percentage points for children 10–22 months, significant at the 10% level

C.1.1.2 Pradhan and Sulaiman (2014) 'A Review of the Vulnerable Group Development (VGD) Program for Protection and Promotion of Poor Households in Bangladesh'

Intervention

- Evaluation of the Vulnerable Group Development Programme in Bangladesh
- Programme aims:
  - Assist poor rural female-headed households to improve nutrition, livelihoods, and self-reliance
  - Overcome existing food insecurity, malnutrition, lower social status, and poverty
  - Develop skills of women through training
  - Increase social awareness through education and human development
- Programme participants must meet at least four of the following criteria:
  - Severe food insecurity (less than two full meals a day)
  - No land or less than 0.15 acres of land held by the household
  - Very poor housing conditions
  - Extremely low and irregular daily family income or casual labour
  - Female-headed household
  - No mature male income-earner in household
- Union committee selects households for two-year cycle

Sample/evaluation design

- Study conducted in Sylhet district and Sylhet division
- Sample of 317 households
- Beneficiaries for 2010–11 cycle, which ended in December 2012
- Survey conducted in January and February 2013
- Uses propensity score matching

Results

Poverty

- 35% decrease in the probability of poverty, significant at the 5% level

Consumption

- Increased per capita household expenditure by 8%, significant at the 1% level
- Decreased per capita food expenditure by 4%, significant at the 1% level
- Increased per capita non-food expenditure by 70%, significant at the 1% level

Assets

- 600% increase in household savings, significant at the 1% level
- More than 100% increase in the value of durable goods, significant at the 1% level
- 200–300% increase in productive assets, depending on the specification, significant at the 1% level

C.1.1.3 Ahmed *et al*. (2016) 'Which Kinds of Social Safety Net Transfers Work Best for the Ultra Poor in Bangladesh? Operation and Impacts of the Transfer Modality Research Initiative'

Intervention

- Transfer Modality Research Initiative (TRMI) providing cash or food transfers to rural women in Bangladesh
  - Some also received a complementary nutrition behaviour change communication (BCC)
- Beneficiaries poor households with a child 0–24 months in March 2012
  - Mother of child designated the beneficiary (cardholder for transfers and target of BCC)
- Received transfer payments for 24 months: May 2012 to April 2014
- Cash treatment group received a monthly payment of BDT 1,500 (US$ 19) per household
- Food treatment group received a monthly ration of 30 kg of rice, 2 kg of mosoor pulse, and 2 litres of micro-nutrient fortified oil
- Cash and food treatment group received half of each on a monthly basis: BDT 750, 15 kg of rice, 1 kg of mosoor pulse, and 1 litre of micro-nutrient fortified oil
- Cash was delivered via a mobile phone app
  - All beneficiaries in all groups received a mobile phone
- Food was handed out at food distribution points no more than 2 kilometres from beneficiaries' homes
- BCC arms also received intensive nutrition interventions
  - Weekly group trainings, twice monthly visits by community nutrition workers, and monthly group meetings

Sample/evaluation design

- Two cluster RCTs in rural Bangladesh, one in the northwest ('north') and one in the coastal southern region ('south')
- North study villages were randomly assigned to control or one of four treatment arms: a cash transfer, a food ration, a half cash transfer and a half food ration, or a cash transfer and BCC
- South study villages were randomly assigned to control or one of four treatment arms: a cash transfer, a food ration, a half cash transfer and a half food ration, or a food ration and BCC
- Five sub-districts in each region randomly selected in each region from list of sub-districts with 33% or more households living below the lower poverty line in Bangladesh in 2010
    - Simple random sampling used to assign 50 villages from this list to treatment and control groups
- Village census conducted in the 250 selected villages in each region
    - Used to make a list of eligible households (based on consumption below poverty line)
    - 10 households randomly selected for the programme
- Baseline survey conducted March – April 2012
- Midline survey conducted in June 2013
- Endline survey completed in April 2014
- 2,410 households in the north and 2,438 in the south reached at endline
- Use ANCOVA estimation for ITT

Results

Consumption

- In the north:
    - Any transfer increased monthly real household food expenditure per capital by BDT 100.60, significant at the 1% level
    - Cash-only transfers increased household monthly real food expenditure per capita by BDT 78.02, significant at the 1% level
        - Impact is significantly different to cash and food, at the 10% level
    - Food-only ration increased household monthly real food expenditure per capita by BDT 64.24, significant at the 1% level
    - Cash and food increased household monthly real food expenditure per capita by BDT 51.47, significant at the 1% level
    - Cash and BCC increased household monthly real food expenditure per capita by BDT 210.73, significant at the 1% level

    - Impact is significantly different at the 1% level compared to all other transfer types
  - Any transfer increased monthly real household non-food expenditure per capital by BDT 22.10, significant at the 5% level
  - Cash-only transfers increased household monthly real non-food expenditure per capita by BDT 22.73, significant at the 5% level
    - Impact is significantly different to cash and food, at the 10% level
  - Food-only ration increased household monthly real non-food expenditure per capita by BDT 29.03, significant at the 5% level
    - Impact is significantly different to cash and food, at the 5% level
  - Cash and BCC increased household monthly real non-food expenditure per capita by BDT 36.82, significant at the 1% level
    - Impact is significantly different to cash and food transfer, at the 5% level
  - Any transfer increased monthly real household total expenditure per capital by BDT 124.33, significant at the 1% level
  - Cash-only transfers increased household monthly real total expenditure per capita by BDT 101.17, significant at the 1% level
    - Impact is significantly different to cash and food, at the 5% level
  - Food-only ration increased household monthly real total expenditure per capita by BDT 94.18, significant at the 1% level
    - Impact is significantly different to cash and food, at the 10% level
  - Cash and food increased household monthly real total expenditure per capita by BDT 54.92, significant at the 1% level
  - Cash and BCC increased household monthly real total expenditure per capita by BDT 249.54, significant at the 1% level
    - Impact is significantly different, at the 1% level, to all other transfer types
- In the south:
  - Any transfer increased monthly real household food expenditure per capita by BDT 70.93, significant at the 1% level
  - Cash-only transfers increased household monthly real food expenditure per capita by BDT 51.85, significant at the 5% level
  - Food-only ration increased household monthly real food expenditure per capita by BDT 36.31, significant at the 10% level
  - Cash and food increased household monthly real food expenditure per capita by BDT 55.95, significant at the 1% level
  - Food and BCC increased household monthly real food expenditure per capita by BDT 139.53, significant at the 1% level

    - Impact is significantly different, at the 1% level, to all other transfer types
  - Any transfer type increased monthly nominal household total expenditure per capita by BDT 81.10, significant at the 1% level
  - Cash-only transfers increased household monthly nominal total expenditure per capita by BDT 51.47, significant at the 10% level
  - Cash and food increased household monthly nominal total expenditure per capita by BDT 77.20, significant at the 5% level
  - Food and BCC increased household monthly nominal total expenditure per capita by BDT 150.01, significant at the 1% level
    - Impact is significantly different, at the 1% level, to cash-only and food-only, and different, at the 5% level, to cash and food

C.1.1.4 Sharif and Ruthbah (2017) 'Politics, Public Works and Poverty: Evidence from the Bangladesh Employment Generation Programme for the Poorest'

Intervention

- Employment Generation Programme for the Poorest (EGPP) in Bangladesh
- Provides cash for work during the two lean seasons
  - 40 days of employment in March and April and September to November
- Selection criteria:
  - Households whose heads are manual labourers and who own less than 0.5 acres of land
  - Selected on an annual basis in each Union
- Beneficiary can receive up to BDT 8,000 (up to US$ 104)

Sample/evaluation design

- Difference-in-difference method
- Baseline survey collected in November and December 2010
- Endline survey conducted in November and December 2012
- 3,915 households in baseline survey, 1,594 participant households
  - Non-participant households met eligibility criteria of the programme
- 3,116 households found at endline, 128 replacement households surveyed

Results

Consumption

- Household consumption increased by BDT 1,492, significant at the 5% level
  - Poor households increased consumption by BDT 938, significant at the 5% level
  - Less poor households increased consumption by BDT 5,177, significant at the 5% level

- No significant impact on food expenditure
  - Poor households increased food consumption by BDT 708, significant at the 5% level
- Increase in non-food expenditure by BDT 1,190, significant at the 1% level
  - No significant increase for poor households
  - Less poor households increased non-food expenditures by BDT 3,192, significant at the 5% level
- An additional round of the programme increased consumption, especially for poor households

C.1.1.5 Cho and Ruthbah (2018) 'Does Workfare Work Well? The Case of the Employment Generation Program for the Poorest in Bangladesh'

Intervention

- Employment Generation Programme for the Poorest (EGPP) in Bangladesh, a public works programme
- Qualifying households should have less than 0.5 acres of land, with no productive assets, and annual earnings less than BDT 4,000 (US$ 50)
  - Head of household works as day labourer
  - Unclear verification of eligibility criteria
- Provides short-term employment to agricultural labourers during the lean seasons (October to December and March to April)
- Beneficiary works for 40 days per cycle and up to two cycles per year
- Beneficiary paid BDT 200 (US$ 2.50) per day of work
- 30% of participation at the Union level must be female
- Payment transferred directly to the beneficiary's bank account

Sample/evaluation design

- First round survey completed in February and March 2015, second round done in February and March 2016
- Sample stratified two ways
  - 50 Unions (primary survey units) were selected with a probability proportional to the budget al.located based on the Upazila's (administrative unit above union) 2010 poverty rate
  - 40 households in each Union were randomly selected for the EGPP sample (2,000 total households)
  - 20 households in each Union were selected for the four other traditional safety net programmes
- 4,000 total households in the sample
- Constructed a primary survey unit panel

  - 103 Unions in the balanced panel
- Main sample of 6,812 households and 3,979 EGPP household supplement
- Used IV for EGPP participation
  - Major infrastructure (bank) within 30 minutes

Results

Consumption

- Household consumption increased by 7.7 to 10.6%, on average (from BDT 680 to 933), significant at the 10% or 5% level, depending on the specification
  - Per capita expenditure also increased
- Impact on food consumption small and insignificant
- Households consumed more meats, dairy, and fish, and less vegetables, fruits, and food prepared outside the home
- Increased expenditure on healthcare and leisure, festivals, and gifts
- Decreased expenditure on clothes and shoes

C.1.1.6 Ahmed *et al*. (2019) 'Transfers, Nutrition Programming, and Economic Well-being Experimental Evidence from Bangladesh'

Intervention

- TRMI providing cash or food transfers to rural women in Bangladesh
  - Some also received a complementary BCC
- Beneficiaries poor households with a child 0–24 months in March 2012
  - Mother of child designated the beneficiary (cardholder for transfers and target of BCC)
- Received transfer payments for 24 months, from May 2012 to April 2014
- Cash treatment group received a monthly payment of BDT 1,500 (US$ 19) per household
- Food treatment group received a monthly ration of 30 kg of rice, 2 kg of mosoor pulse, and 2 litres of micro-nutrient fortified oil
- Cash and food treatment group received half of each on a monthly basis: BDT 750, 15 kg of rice, 1 kg of mosoor pulse, and 1 litre of micro-nutrient fortified oil
- Cash was delivered via a mobile phone app
  - All beneficiaries in all groups received a mobile phone
- Food was handed out at food distribution points no more than 2 kilometres for beneficiary homes
- BCC arms also received intensive nutrition interventions
  - Weekly group trainings, twice monthly visits by community nutrition workers, and monthly group meetings

Sample/evaluation design

- Two cluster RCTs in rural Bangladesh, one in the northwest ('north') and one in the coastal southern region ('south')
- North study villages were randomly assigned to control or one of four treatment arms: a cash transfer, a food ration, a half cash transfer and a half food ration, or a cash transfer and BCC
- South study villages were randomly assigned to control or one of four treatment arms: a cash transfer, a food ration, a half cash transfer and a half food ration, or a food ration and BCC
- Five sub-districts in each region randomly selected in each region from a list of sub-districts with 33% or more households living below the lower poverty line in Bangladesh in 2010
    - Simple random sampling used to assign 50 villages from this list to treatment and control groups
- Village census conducted in the 250 selected villages in each region
    - Used to make a list of eligible households (based on consumption below poverty line)
    - 10 households randomly selected for the programme
- Baseline survey conducted March – April 2012
- Midline survey conducted in June 2013
- Endline survey completed in April 2014
- 2,395 households in the north and 2,425 in the south appeared at baseline and endline
- Used ANCOVA estimation for ITT

Results

Consumption

- In the north:
    - Cash-only transfers increased household monthly food consumption per capita by BDT 138.04, significant at the 1% level
        - 17% increase from control mean
    - Food-only ration increased household monthly food consumption per capita by BDT 120.68, significant at the 1% level
    - Cash and food increased household monthly food consumption per capita by BDT 107.69, significant at the 1% level
    - Cash and BCC increased household monthly food consumption per capita by BDT 338.68, significant at the 1% level
        - Impact is significantly different, at the 1% level, to all other transfer types
        - 42% increase from control mean

- Cash-only transfers increased household monthly non-food consumption per capita by BDT 37.35, significant at the 10% level
- Food-only ration increased household monthly non-food consumption per capita by BDT 56.24, significant at the 5% level
- Cash and BCC increased household monthly non-food consumption per capita by BDT 64.11, significant at the 1% level
  - Impact is significantly different to cash and food transfer, at the 10% level
  - 13% increase from control mean
- Cash-only transfers increased household monthly total consumption per capita by BDT 175.47, significant at the 1% level
  - 13% increase from control mean
- Food-only ration increased household monthly total consumption per capita by BDT 179.48, significant at the 1% level
- Cash and food increased household monthly total consumption per capita by BDT 127.03, significant at the 1% level
- Cash and BCC increased household monthly total consumption per capita by BDT 395.21, significant at the 1% level
  - Impact is significantly different, at the 1% level, to all other transfer types
  - 30% increase from control mean

- In the south:
  - Cash-only transfers increased household monthly food consumption per capita by BDT 114.89, significant at the 1% level
  - Food-only ration increased household monthly food consumption per capita by BDT 115.28, significant at the 1% level
  - Cash and food increased household monthly food consumption per capita by BDT 154.78, significant at the 1% level
  - Food and BCC increased household monthly food consumption per capita by BDT 280.89, significant at the 1% level
    - Impact is significantly different, at the 1% level, to all other transfer types
  - Food-only ration increased household monthly non-food consumption per capita by BDT 73.48, significant at the 10% level
  - Cash and food increased household monthly non-food consumption per capita by BDT 47.40, significant at the 10% level
  - Food and BCC increased household monthly food consumption per capita by BDT 44.06, significant at the 10% level
  - Cash-only transfers increased household monthly total consumption per capita by BDT 129.71, significant at the 5% level

- Food-only ration increased household monthly total consumption per capita by BDT 201.90, significant at the 1% level
- Cash and food increased household monthly total consumption per capita by BDT 215.76, significant at the 1% level
- Food and BCC increased household monthly total consumption per capita by BDT 337.14, significant at the 1% level
  - Impact is significantly different, at the 1% level, to cash-only; different, at the 5% level, to cash and food; and different, at the 10% level, to food-only

Assets

- In the north:
  - Cash-only transfers increased a household's value of total assets by BDT 11,263.57, significant at the 1% level
  - Food-only ration increased a household's value of total assets by BDT 9,410.14, significant at the 1% level
  - Cash and food increased a household's value of total assets by BDT 7,159.09, significant at the 1% level
  - Cash and BCC increased a household's value of total assets by BDT 18,331.44, significant at the 1% level
    - Impact is significantly different, at the 1% level, to food-only or cash and food; and different to cash-only, at the 5% level
    - 70% increase over control mean
  - Cash-only transfers increased a household's value of net assets by BDT 13,060.79, significant at the 1% level
  - Food-only ration increased a household's value of net assets BDT 12,099.32, significant at the 1% level
  - Cash and food increased a household's value of net assets by BDT 8,594.32, significant at the 1% level
  - Cash and BCC increased a household's value of net assets by BDT 20,842.57, significant at the 1% level
    - Impact is significantly different, at the 1% level, to all other groups
  - Cash-only transfers increased the value of a household's livestock by BDT 3,004.65, significant at the 1% level
    - Increased the value of poultry by BDT 82.39, significant at the 5% level
  - Food-only ration increased the value of a household's livestock by BDT 2,452.83, significant at the 5% level
  - Cash and food increased the value of a household's livestock by BDT 2,121.90, significant at the 5% level

  - Cash and BCC increased the value of a household's livestock by BDT 4,164.32, significant at the 1% level
    - Impact is significantly different to food-only and cash and food, at the 10% level
    - Increased the value of poultry by BDT 180, significant at the 1% level
    - Poultry increase is significantly different to all other groups, at the 5% level
  - Cash-only transfers increased the value of a household's consumer durables by BDT 1,239.11, significant at the 5% level
  - Cash and BCC increased the value of a household's consumer durables by BDT 2,236.35, significant at the 1% level
    - Impact is significantly different to cash-only, at the 10% level; and to food-only at the 5% level

- In the south:
  - Cash-only transfers increased a household's value of total assets by BDT 6,669.14, significant at the 1% level
  - Cash and food increased a household's value of total assets by BDT 6,145.79, significant at the 5% level
  - Food and BCC increased a household's value of total assets by BDT 10,159.80, significant at the 1% level
    - Impact is significantly different, at the 1% level, to cash and food treatment
  - Cash-only transfers increased a household's value of net assets by BDT 7,377.88, significant at the 1% level
  - Cash and food increased a household's value of net assets by BDT 6,310.55, , significant at the 5% level
  - Food and BCC increased a household's value of net assets by BDT 12.767.43, significant at the 1% level
    - Impact is significantly different, at the 5% level, to all other groups
  - Cash and food transfers increased the value of a household's consumer durables by BDT 1,917.98, significant at the 5% level
  - Food and BCC increased the value of a household's consumer durables by BDT 2,324.98, significant at the 5% level

Anything else

- In the north, cash and food transfers increased the total land leased by the household by 3.66 decimals, significant at the 10% level
  - Impact is significantly different to food-only treatment, at the 5% level

- In the north, cash and BCC transfers increased the total land leased by the household by 6.97 decimals, significant at the 1% level
    - Impact is significantly different to cash-only, at the 5% level; and to food-only at the 1% level
    - Land leased through sharecropping increased by 6.04 decimals, significant at the 1% level
        - 50% increase relative to control
- In the north, cash-only transfers increased the probability of a household cultivating improved rice or wheat by 7 percentage points, significant at the 10% level
    - Impact is significantly different to cash and food transfers, at the 10% level
    - 18% increase relative to control
- In the north, cash and BCC increased the probability of a household cultivating improved rice or wheat by 14 percentage points, significant at the 1% level
    - Impact is significantly different to cash-only transfers, at the 10% level; to food-only transfers at the 5% level; and to cash and food at the 1% level
    - 37% increase relative to control
- In the south, cash-only transfers increased the probability of a household cultivating improved rice or wheat by 6 percentage points, significant at the 5% level
    - Impact is significantly different to food-only, at the 5% level
    - 35% increase relative to control
- In the north, cash and BCC increased household total monthly labour income by BDT 458.06, significant at the 5% level
    - Impact is significantly different to cash and food, at the 10% level
    - 11% increase relative to control
- In the north, cash and BCC increased household total monthly net income by BDT 614.97, significant at the 5% level
    - Impact is significantly different to cash and food, at the 5% level
    - 14% increase relative to control
- In the south, cash-only increased household total monthly labour income by BDT 494.42, significant at the 5% level
    - Impact is significantly different to food-only, at the 10% level
    - 10% increase relative to control
- In the south, food and BCC increased household total monthly labour income by BDT 574.05, significant at the 5% level
    - Impact is significantly different to food-only, at the 5% level
    - 12% increase relative to control

- In the south, food and BCC increased household total monthly net income by BDT 400.47, significant at the 10% level
  - Impact is significantly different to food-only, at the 5% level; and to cash and food at the 10% level
  - 7% increase relative to control

C.1.2 Asset transfers

C.1.2.1 Das and Misha (2010) 'Addressing extreme poverty in a sustainable manner: Evidence from CFPR programme'

Intervention

- BRAC's Targeting the Ultra-Poor (TUP) programme
  - Phase I launched in three of the poorest districts (Rangpur, Kurigram, and Nilphamari)
- One-off transfer of assets
  - Choose from a menu of asset bundles valued at BDT 10,000
  - Includes livestock, assets for small-scale retain operations, tree nurseries, vegetable growing
  - Encouraged to retain the asset for two years
- Also includes a skills development programme
  - Classroom training and home visits
  - Livestock specialist visits
  - General education programme
  - Health support
  - Training on legal, social, and political rights
- Village support network created
- Get weekly stipend to smooth consumption at the beginning
- Programme encourages savings with BRAC and borrowing from BRAC microfinance at the end of the programme
- Programme participants are poorest group in wealth ranking of the village and determined by exclusion/inclusion criteria – only ultra-poor eligible for transfer
  - Must meet three of the inclusion criteria: total land owned does not exceed 10 decimals, no adult male income-earner in the household, adult women in the household work outside the home, school-aged children work, household has no productive assets
  - Exclusion criteria: no adult woman is able to work in household, participating in microfinance, beneficiary of government/NGO development project
- Support programme lasts for two years

Sample/evaluation design

- Sample of 5,626 households (2,633 selected ultra-poor and 2,993 non-selected ultra-poor) at baseline
- Baseline survey conducted in 2002
- Follow-up surveys conducted in 2005, 2008
- 2,251 selected ultra-poor and 2,298 non-selected ultra-poor in all three rounds
- Food expenditure data collected for 400 household subsample in 2002, 2004, 2006, and 2008
    - 298 households in all panel rounds
- Difference-in-difference method

Results

Consumption

- Per capita income in constant 2002 BDT increased by BDT 969 in 2005 from 2002, and by BDT 1,802 in 2008 from 2002, in selected ultra-poor household compared to non-selected ultra-poor households, statistically significant at the 1% level
    - Controlling for baseline characteristics, a BDT 995 increase from 2002 to 2005 and a BDT 1,833 increase from 2002 to 2008, statistically significant at the 1% level

Assets

- Treatment households were 7.13 percentage points more likely to own homestead land in 2005 (statistically significant at the 10% level) and 12.66 percentage points more likely in 2008 (statistically significant at the 1% level), both compared to 2002
    - Owned 0.69 more decimals in 2005 and 0.96 more decimals in 2008, statistically significant at the 1% level
- Treatment households were 3.81 percentage points more likely to own cultivable land in 2005 and 7.19 percentage points more likely to do so in 2008, both statistically significant at the 1% level
    - Owned 1.32 more decimals in 2008, statistically significant at the 5% level
- Treatment households were 79.87 percentage points more likely to own a cow/bull in 2005 (statistically significant at the 1% level) and 62.52 percentage points more likely to do so in 2008 (statistically significant at the 10% level), both compared to 2002
    - Owned 0.66 more cows/bulls in 2005 and 0.49 more cows/bulls in 2008, statistically significant at the 1% level
- Treatment households were 19 percentage points more likely to own a goat/sheep in 2005 (statistically significant at the 1% level) and 21 percentage points more likely to do so in 2008 (statistically significant at the 1% level), both compared to 2002

- Treatment households were 14 percentage points more likely to own a duck/hen in 2005 (statistically significant at the 5% level) and 28 percentage points more likely to do so in 2008 (statistically significant at the 1% level), both compared to 2002
  - Owned 0.52 more ducks/hens in 2005 and 1.81 more ducks/hens in 2008, statistically significant at the 10% level and 1% level, respectively
- Treatment households were 4.66 percentage points more likely to own a rickshaw/van in 2005 (statistically significant at the 1% level) and 6.35 percentage points more likely to do so in 2008 (statistically significant at the 1% level), both compared to 2002
- Treatment households were 15 percentage points more likely to own a bed in 2005 (statistically significant at the 1% level) and 23.04 percentage points more likely to do so in 2008 (statistically significant at the 1% level), both compared to 2002
  - Owned 0.06 more beds in 2005 and 0.1 more beds in 2008, statistically significant at the 5% level and 1% level, respectively
- Treatment households were 18 percentage points more likely to own a chair in 2008 (statistically significant at the 10% level) compared to 2002
  - 0.19 more decimals in 2008, statistically significant at the 5% level

C.1.2.2 Krishna *et al*. (2012) 'How much can asset transfers help the poorest? Evaluating the results of BRAC's ultra-poor programme (2002–2008)'

Intervention

- BRAC's TUP programme
  - Phase I launched in three of the poorest districts (Rangpur, Kurigram, and Nilphamari)
- One-off transfer of assets
  - Choose from a menu of asset bundles valued at BDT 10,000
  - Includes livestock, assets for small-scale retain operations, tree nurseries, vegetable growing
  - Encouraged to retain the asset for two years
- Also includes a skills development programme
  - Classroom training and home visits
  - Livestock specialist visits
  - General education programme
  - Health support
  - Training on legal, social, and political rights
- Village support network created
- Get weekly stipend to smooth consumption at the beginning

- Programme encourages savings with BRAC and borrowing from BRAC microfinance at the end of the programme
- Programme participants are poorest group in wealth ranking of the village and determined by exclusion/inclusion criteria – only ultra-poor eligible for transfer
    - Must meet three of the inclusion criteria: total land owned does not exceed 10 decimals, no adult male income-earner in the household, adult women in the household work outside the home, school-aged children work, household has no productive assets
    - Exclusion criteria: no adult woman is able to work in household, participating in microfinance, beneficiary of government/NGO development project
- Support programme lasts for two years

Sample/evaluation design

- Baseline survey conducted in June and August 2002, one-third of all village clusters randomly selected for the survey
    - Selected ultra-poor household and non-selected ultra-poor households
- Follow-up surveys conducted in 2005 and 2008
- Difference-in-difference methods

Results

Consumption

- Per capita income in constant 2000 BDT increased by BDT 677.54 in 2005, and by BDT 832.36 in 2008, in selected ultra-poor household compared to non-selected ultra-poor households, statistically significant at the 1% level

Assets

- The asset value increased by BDT 10,611.92 in 2005, and by BDT 7,714.96 in 2008, in selected ultra-poor households compared to non-selected ultra-poor households, statistically significant at the 1% level
    - Comparisons made for a single year
- Selected ultra-poor households increased their land ownings but these were still less than non-selected ultra-poor households

C.1.2.3 Raza and Ara (2012) 'Grant based approach to poverty reduction: Evidence from Bangladesh'

Intervention

- BRAC's TUP programme
    - Phase II launched in 2007
- One-off transfer of assets
    - Choose from a menu of asset bundles valued at BDT 10,000

    - Includes livestock, assets for small-scale retain operations, tree nurseries, vegetable growing
    - Encouraged to retain the asset for two years
- Also includes a skills development programme
    - Classroom training and home visits
    - Livestock specialist visits
    - General education programme
    - Health support
    - Training on legal, social, and political rights
- Village support network created
- Get weekly stipend of BDT 175 for 8–10 months
- Programme encourages savings with BRAC and borrowing from BRAC microfinance at the end of the programme
- Programme participants are poorest group in wealth ranking of the village and determined by exclusion/inclusion criteria – only ultra-poor eligible for transfer
    - Must meet three of the inclusion criteria: total land owned does not exceed 10 decimals, no adult male income-earner in the household, adult women in the household work outside the home, school-aged children work, household has no productive assets
    - Exclusion criteria: no adult woman is able to work in household, participating in microfinance, beneficiary of government/NGO development project
- Support programme lasts for two years

Sample/evaluation design

- Baseline survey conducted in 2007 in the 50 branches and five districts covered by the programme
- Selected ultra-poor and non-selected ultra-poor surveyed
- 3,685 households were surveyed, 778 treatment and 2,907 control
- Second follow-up survey conducted in 2009, where 3,387 households were reached
- Propensity score matching and difference-in-difference methods

Results

Consumption

- Treatment increased income by BDT 1,128.85, statistically significant at the 5% level

Assets

- The amount of homestead land increased by 0.09 decimals, statistically significant at the 10% level

- The number of cow/bulls increased by 0.66, statistically significant at the 1% level
  - Value increased by BDT 6,768.05, statistically significant at the 1% level
- The number of chicken/ducks increased by 0.32, statistically significant at the 1% level
  - Value increased by BDT 369.65, statistically significant at the 1% level
- The average number of cell phones owned increased by 0.067, significant at the 10% level
- The number of mosquito nets owned increased by 0.168, significant at the 5% level

C.1.2.4 Raza *et al*. (2012) 'Can ultra-poverty be sustainably improved? Evidence from BRAC in Bangladesh'

Intervention

- BRAC's TUP programme
  - Phase I launched in three of the poorest districts (Rangpur, Kurigram, and Nilphamari)
- One-off transfer of assets
  - Choose from a menu of asset bundles valued at BDT 10,000
  - Includes livestock, assets for small-scale retain operations, tree nurseries, vegetable growing
  - Encouraged to retain the asset for two years
- Also includes a skills development programme
  - Classroom training and home visits
  - Livestock specialist visits
  - General education programme
  - Health support
  - Training on legal, social, and political rights
- Village support network created
- Get weekly stipend to smooth consumption at the beginning
- Programme encourages savings with BRAC and borrowing from BRAC microfinance at the end of the programme
- Programme participants are poorest group in wealth ranking of the village and determined by exclusion/inclusion criteria – only ultra-poor eligible for transfer
  - Must meet three of the inclusion criteria: total land owned does not exceed 10 decimals, no adult male income-earner in the household, adult women in the household work outside the home, school-aged children work, household has no productive assets
  - Exclusion criteria: no adult woman is able to work in household, participating in microfinance, beneficiary of government/NGO development project

- Support program lasts for two years

Sample/evaluation design

- Sample of 5,626 households (2,633 treatment) at baseline
- Baseline survey conducted in 2002
- Follow-up surveys conducted in 2005, 2008
- 2008 survey had 4,549 households
- Treatment group is selected ultra-poor while control is non-selected ultra-poor
- Propensity score matching and difference-in-difference used

Results

Consumption

- Per capita income increased by BDT 794 from 2002 to 2005 for treatment households compared to control, and by BDT 1,654 from 2002 to 2008, both statistically significant at the 1% level
    - Difference between 2005 and 2008 is BST 860, statistically significant at the 1% level

Assets

- Owned land increased by 0.49 decimals from 2002 to 2008 (significant at the 1% level), and increased by 0.323 decimals from 2005 to 2008 (significant at the 5% level)
    - Cultivable land increased by 0.535 decimals from 2002 to 2008, and by 0.6712 decimals from 2005 to 2008, both significant at the 1% level
- The number of goats/sheep owned increased by 0.40 from 2002 to 2005, and by 0.41 from 2002 to 2008, both statistically significant at the 1% level
- The number of ducks/hens owned increased by 0.52 from 2002 to 2005, and by 2.01 from 2002 to 2008, both statistically significant at the 1% level
    - Difference between 2005 and 2008 is 1.494, statistically significant at the 1% level
- The number of cows/bulls owned increased by 1.60 from 2002 to 2005, and by 1.15 from 2002 to 2008, both statistically significant at the 1% level
- The number of big trees owned increased by 0.47 from 2002 to 2008, both statistically significant at the 1% level
    - Difference between 2005 and 2008 is 0.359, statistically significant at the 1% level
- The number of radios owned increased by 0.01 from 2002 to 2005 (significant at the 10% level), and by 0.02 from 2002 to 2008 (significant at the 1% level)
    - Difference between 2005 and 2008 is 0.011, statistically significant at the 10% level
- The number of beds owned increased by 0.131 from 2002 to 2005, and by 0.21 from 2002 to 2008, both statistically significant at the 1% level
    - Difference between 2005 and 2008 is 0.074, statistically significant at the 1% level

- The number of rickshaws/vans owned increased by 0.044 from 2002 to 2005, and by 0.051 from 2002 to 2008, both statistically significant at the 1% level
- The market value of houses owned by treatment households increased by BDT 320 from 2002 to 2005, and BDT 985 from 2005 to 2008, both statistically significant at the 1% level
    - Difference between 2005 and 2008 is BDT 654.7, statistically significant at the 1% level

C.1.2.5 Das *et al*. (2013) 'How do intrahousehold dynamics change when assets are transferred to women? Evidence from BRAC's challenging the frontiers of poverty reduction-targeting the ultra poor program in Bangladesh'

Intervention

- BRAC's Challenging the Frontiers of Poverty Reduction – Targeting the Ultra-Poor (CRFP-TUP) programme
    - 13 districts received the programme in Phase II
- One-off transfer of assets
    - Choose from a menu of asset bundles valued at BDT 10,000
    - Includes livestock, assets for small-scale retain operations, tree nurseries, vegetable growing
    - Encouraged to retain the asset for two years
- Also includes a skills development programme
    - Classroom training and home visits
    - Livestock specialist visits
    - Health support
    - Training on legal, social, and political rights
- Get subsistence allowance of BDT 175 for 8–12 months
- Programme encourages savings with BRAC and borrowing from BRAC microfinance at the end of the programme
- Programme participants are poorest group in wealth ranking of the village and determined by exclusion/inclusion criteria – only ultra-poor eligible for transfer
    - Must meet three of the inclusion criteria: total land owned does not exceed 10 decimals, no adult male income-earner in the household, adult women in the household work outside the home, school-aged children work, household has no productive assets
    - Exclusion criteria: no adult woman is able to work in household, participating in microfinance, beneficiary of government/NGO development project
- Support programme lasts for two years

Sample/evaluation design

- Second phase of the programme follows RCT design – 20 treatment and 20 control BRAC branches
- Baseline survey in 2007 included 7,953 eligible households
- Additional survey rounds done in 2009 and 2011
- 6,919 households included in 2011 survey
- Attrition slightly correlated with baseline characteristics of households, so attrition weights were used

Results

Assets

- Treatment increased the number of cows/buffalo owned in the household by 1.036, statistically significant at the 1% level
  - 0.817 increase in number of cows/buffalo owned solely by a female, statistically significant at the 1% level
  - 0.958 increase in number of cows/buffalo owned in any part by a female, statistically significant at the 1% level
  - 0.076 increase in number of cows/buffalo owned solely by a male, statistically significant at the 1% level
  - 0.129 increase in number of cows/buffalo owned jointly by a female and male, statistically significant at the 1% level
- Treatment increased the number of goats/sheep owned in the household by 0.220, statistically significant at the 1% level
  - 0.159 increase in number of goats/sheep owned solely by a female, statistically significant at the 1% level
  - 0.192 increase in number of goats/sheep owned in any part by a female, statistically significant at the 1% level
  - 0.026 increase in number of goats/sheep owned solely by a male, statistically significant at the 1% level
  - 0.026 increase in number of goats/sheep owned jointly by a female and male, statistically significant at the 5% level
- Treatment increased the number of chickens/ducks owned in the household by 0.883, statistically significant at the 1% level
  - 0.779 increase in number of chickens/ducks owned solely by a female, statistically significant at the 1% level
  - 0.803 increase in number of chickens/ducks owned in any part by a female, statistically significant at the 1% level

  - 0.079 increase in number of chickens/ducks owned solely by a male, statistically significant at the 1% level
- Treatment also increased the number of other agriculture assets (tools) owned in the households
- Treatment increased the number of bicycles, mobile phones, trees, rickshaws, fishnets, and cottage materials owned in the household
- Treatment increased the number of chairs, beds, almirahs, TVs, tube wells, cooking instruments, and clothing owned by the household
- Treatment increased the amount of land owned by the household, statistically significant at the 1% level
  - Only statistically significant increases in land owned solely by males or owned jointly by males and females
  - Cultivable land ownership increased for sole female owners, significant at the 10% level

C.1.2.6 Robano and Smith (2013) 'Multidimensional Targeting and Evaluation: A General Framework with an Application to a Poverty Program in Bangladesh'

Intervention

- BRAC's TUP programme
  - Phase I launched in three of the poorest districts (Rangpur, Kurigram, and Nilphamari)
- One-off transfer of assets
  - Choose from a menu of asset bundles valued at BDT 10,000
  - Includes livestock, assets for small-scale retain operations, tree nurseries, vegetable growing
  - Encouraged to retain the asset for two years
- Also includes a skills development programme
  - Classroom training and home visits
  - Livestock specialist visits
  - General education programme
  - Health support
  - Training on legal, social, and political rights
- Village support network created
- Get a weekly stipend to smooth consumption at the beginning
- Programme encourages savings with BRAC and borrowing from BRAC microfinance at the end of the programme

- Programme participants determined by poorest group in wealth ranking of the village and exclusion/inclusion criteria – only ultra-poor eligible for transfer
    - Must meet three of the inclusion criteria: total land owned does not exceed 10 decimals, no adult male income-earner in the household, adult women in the household work outside the home, school-aged children work, household has no productive assets
    - Exclusion criteria: no adult woman is able to work in household, participating in microfinance, beneficiary of government/NGO development project
- Support programme lasts for two years

Sample/evaluation design

- Focus on multi-dimensional poverty evaluation
    - Use the five inclusion criteria for multi-dimensional targeting
    - Also analyse changes in four basic needs indicators for the measurement of multi-dimensional impact
- Sufficient mis-targeting of programme
- Two-year panel dataset collected in 2002 and 2005
    - 5,626 households in 2002
    - 5,288 households resampled in 2005 and 278 newly formed households that had split from initial households
    - Matched panel has 5,067 households

Results

Poverty

- Using the inclusion criteria, the Alkire-Foster adjusted headcount ratio decreased by 0.093 for the treatment group compared to the control group with one deprivation, statistically significant at the 1% level, a 9% reduction in poverty
    - With two deprivations, the Alkire-Foster adjusted headcount ratio decreased by 0.198 for the treatment group compared to the control group, statistically significant at the 1% level, a 20% reduction in poverty
    - With three derivations, the Alkire-Foster adjusted headcount ratio decreased by 0.258 for the treatment group compared to the control group, statistically significant at the 1% level, a 26% reduction in poverty
    - With four deprivations, the Alkire-Foster adjusted headcount ratio decreased by 0.577 for the treatment group compared to the control group, statistically significant at the 1% level, a 58% reduction in poverty

- Using the four basic needs indicators, the Alkire-Foster adjusted headcount ratio increased by 1.985 for the treatment group compared to the control group with no deprivations, statistically significant at the 1% level
    - With one deprivation, the Alkire-Foster adjusted headcount ratio decreased by 0.185 for the treatment group compared to the control group, statistically significant at the 1% level
    - With two deprivations, the Alkire-Foster adjusted headcount ratio decreased by 0.300 for the treatment group compared to the control group, statistically significant at the 1% level
    - With three derivations, the Alkire-Foster adjusted headcount ratio decreased by 0.435 for the treatment group compared to the control group, statistically significant at the 1% level
    - With four deprivations, the Alkire-Foster adjusted headcount ratio decreased by 0.354 for the treatment group compared to the control group, statistically significant at the 1% level
- Larger impacts are found among those who start with greater multi-dimensional poverty across all measures

C.1.2.7 Erman *et al*. (2014) 'Assessing the frontiers of ultrapoverty reduction: evidence from challenging the frontiers of poverty reduction/targeting the ultra-poor, an innovative program in Bangladesh'

Intervention

- BRAC's TUP programme
    - Phase I launched in three of the poorest districts (Rangpur, Kurigram, and Nilphamari)
- One-off transfer of assets
    - Choose from a menu of asset bundles valued at BDT 10,000
    - Include livestock, assets for small-scale retain operations, tree nurseries, vegetable growing
    - Encouraged to retain the asset for two years
- Also includes a skills development programme
    - Classroom training and home visits
    - Livestock specialist visits
    - General education programme
    - Health support
    - Training on legal, social, and political rights
- Village support network created
- Get weekly stipend at the beginning to smooth consumption

- Programme encourages savings with BRAC and borrowing from BRAC microfinance at the end of the programme
- Programme participants are poorest group in wealth ranking of the village and determined by exclusion/inclusion criteria – only ultra-poor eligible for transfer
    - Must meet three of the inclusion criteria: total land owned does not exceed 10 decimals, no adult male income-earner in the household, adult women in the household work outside the home, school-aged children work, household has no productive assets
    - Exclusion criteria: no adult woman is able to work in household, participating in microfinance, beneficiary of government/NGO development project
- Support programme lasts for two years

Sample/evaluation design

- Minimum biased invers probability weighted (MB-IPW) estimator
- Difference-in-difference matching (DIDM)
- Heteroskedasticity-based identification approach
- Treatment group is selected ultra-poor, control group is not selected ultra-poor
- Two-year panel, baseline completed in 2002 and follow-up done in 2005
- Matched panel has 5,067 households
- Treatment group on average poorer than control group

Results

Consumption

- Treatment increased the per capita income of households by BDT 1,126.69, statistically significant at the 1% level
    - The point estimates vary based on the method used

Assets

- The probability that a household owns its homestead land increased by 9 percentage points, statistically significant at the 1% level
- The probability that a household has a tin roof increased by 13 percentage points, statistically significant at the 1% level
    - Consistent point estimate across methods
- The number of cows/bulls owned increased by 1.71, statistically significant at the 1% level
- The number of goats/sheep owned increased by 0.45, statistically significant at the 1% level
- The number of ducks/hens owned increased by 0.56, statistically significant at the 1% level

- The number of fishing nets owned increased by 0.05, statistically significant at the 1% level
- The number of rickshaw vans owned increased by 0.04, statistically significant at the 1% level
- The number of chairs/tables owned increased by 0.11, statistically significant at the 1% level
- The number of beds owned increased by 0.16, statistically significant at the 1% level
- The number of quilts/blankets owned increased by 0.16, statistically significant at the 1% level
- The number of tube wells owned increased by 0.14, statistically significant at the 1% level

C.1.2.8 Roy *et al*. (2015) '"Flypaper effects" in transfers targeted to women: Evidence from BRAC's "Targeting the Ultra Poor" program in Bangladesh'

Intervention

- BRAC's TUP programme
  - Phase II launched in 2007
- One-off transfer of assets
  - Choose from a menu of asset bundles valued at BDT 10,000
  - Include livestock, assets for small-scale retain operations, tree nurseries, vegetable growing
  - Encouraged to retain the asset for two years
- Also includes a skills development programme
  - Classroom training and home visits
  - Livestock specialist visits
  - General education programme
  - Health support
  - Training on legal, social, and political rights
- Village support network created
- Get weekly stipend of BDT 175 for 8–12 months
- Programme encourages savings with BRAC and borrowing from BRAC microfinance at the end of the programme
- Programme participants are poorest group in wealth ranking of the village and determined by exclusion/inclusion criteria – only ultra-poor eligible for transfer
  - Must meet three of the inclusion criteria: total land owned does not exceed 10 decimals, no adult male income-earner in the household, adult women in the

household work outside the home, school-aged children work, household has no productive assets

- Exclusion criteria: no adult woman is able to work in household, participating in microfinance, beneficiary of government/NGO development project

- Support programme lasts for two years

Sample/evaluation design

- Randomised control trial design – 20 treatment and 20 control branches
- Panel data, 2007 baseline survey, 2009 and 2011 follow-up rounds
- 6,919 households included in all three rounds
  - From 1,409 villages across 40 branch offices
- Additional follow-up survey was done in January–April 2012 focusing on gender and assets
  - 6,066 households included: 3,467 treatment and 2,599 control
- Only focus analysis on selected ultra-poor and use RCT design for identification
- Some key outcomes missing baseline data

Results

Assets

- Treatment increased the number of cows/buffalo owned in the household by 1.036, statistically significant at the 1% level – measured in 2012
  - 0.817 increase in number of cows/buffalo owned solely by a female, statistically significant at the 1% level
  - 0.958 increase in number of cows/buffalo owned in any part by a female, statistically significant at the 1% level
  - 0.076 increase in number of cows/buffalo owned solely by a male, statistically significant at the 1% level
  - 0.129 increase in number of cows/buffalo owned jointly by a female and male, statistically significant at the 1% level
- Treatment increased the number of goats/sheep owned in the household by 0.220, statistically significant at the 1% level – measured in 2012
  - 0.159 increase in number of goats/sheep owned solely by a female, statistically significant at the 1% level
  - 0.192 increase in number of goats/sheep owned in any part by a female, statistically significant at the 1% level
  - 0.026 increase in number of goats/sheep owned solely by a male, statistically significant at the 1% level

  - 0.026 increase in number of goats/sheep owned jointly by a female and male, statistically significant at the 5% level
- Treatment increased the number of chickens/ducks owned in the household by 0.883, statistically significant at the 1% level – measured in 2012
  - 0.779 increase in number of chickens/ducks owned solely by a female, statistically significant at the 1% level
  - 0.803 increase in number of chickens/ducks owned in any part by a female, statistically significant at the 1% level
  - 0.079 increase in number of chickens/ducks owned solely by a male, statistically significant at the 1% level
- Value of livestock owned by treatment households increase by BDT 11,703, statistically significant at the 1% level – measured in 2012
  - BDT 9,090 increase in value of livestock owned solely be a female, statistically significant at the 1% level
  - BDT 10,768 increase in the value of livestock owned in any part by a female, statistically significant at the 1% level
  - BDT 1,511 increase in the value of livestock owned in any part by a male, statistically significant at the 1% level
  - BDT 942 increase in the value of livestock owned jointly by males and females, statistically significant at the 1% level
- Value of agricultural assets owned by treatment households increased by BDT 725, statistically significant at the 1% level – measured in 2012
  - BDT 173 increase in value of agricultural assets owned solely be a female, statistically significant at the 1% level
  - BDT 343 increase in the value of agricultural assets owned in any part by a female, statistically significant at the 1% level
  - BDT 98 increase in the value of agricultural assets owned in any part by a male, statistically significant at the 1% level
  - BDT 375 increase in the value of agricultural assets owned jointly by males and females, statistically significant at the 1% level
- Value of non-agricultural assets owned by treatment households increased by BDT 1,055, statistically significant at the 1% level – measured in 2012
  - BDT 356 increase in the value of non-agricultural assets owned in any part by a female, statistically significant at the 1% level
  - BDT 153 increase in the value of non-agricultural assets owned in any part by a male, statistically significant at the 1% level
  - BDT 681 increase in the value of non-agricultural assets owned jointly by males and females, statistically significant at the 1% level

- Value of consumer durables owned by treatment households increased by BDT 4,894, statistically significant at the 1% level – measured in 2012
  - BDT 767 increase in the value of consumer durables owned solely be a female, statistically significant at the 1% level
  - BDT 2.093 increase in the value of consumer durables owned in any part by a female, statistically significant at the 1% level
  - BDT 704 increase in the value of consumer durables owned in any part by a male, statistically significant at the 1% level
  - BDT 2,437 increase in the value of consumer durables owned jointly by males and females, statistically significant at the 1% level
- Value of land owned by treatment households increased by BDT 13,676, statistically significant at the 1% level – measured in 2012
  - BDT 11,292 increase in the value of land owned jointly by males and females, statistically significant at the 1% level

C.1.2.9 Asadullah and Ara (2016) 'Evaluating the long-run impacts of an innovative poverty programme: Evidence using household panel data'

Intervention

- BRAC's TUP programme
- One-off transfer of assets
  - Choose from a menu of asset bundles valued at BDT 10,000
  - Includes livestock, assets for small-scale retain operations, tree nurseries, vegetable growing
  - Encouraged to retain the asset for two years
- Also includes skills development programme
  - Classroom training and home visits
  - Livestock specialist visits
  - Health support
  - Training on legal, social, and political rights
- Get weekly stipend of BDT 70 for 8–10 months
- Programme encourages savings with BRAC and borrowing from BRAC microfinance at the end of the programme
- Programme participants are poorest group in wealth ranking of the village and determined by exclusion/inclusion criteria – only ultra-poor eligible for transfer
  - Must meet three of the inclusion criteria: total land owned does not exceed 10 decimals, no adult male income-earner in the household, adult women in the household work outside the home, school-aged children work, household has no productive assets

- Exclusion criteria: no adult woman is able to work in household, participating in microfinance, beneficiary of government/NGO development project
- Support programme lasts for two years

Sample/evaluation design

- Difference-in-differences and propensity score matching methods used
- Sample of 5,626 households (2,633 treatment) at baseline
- Baseline survey conducted in 2002
- Follow-up surveys done in 2005, 2008, and 2011
- 2011 survey had 4,038 households

Results

Consumption

- Per capita food expenditure increased for treatment households, only measured in 2008 and 2011 rounds
  - Statistically significant at the 1% level for both simple difference-in-differences estimates and 2008 propensity score matching estimate, significant at the 5% level for 2011 propensity score matching estimate
    - Impact is smaller in 2011 compared to 2008
- Yearly per capita income increased by BDT 969 in 2005 round and BDT 1,802 in 2008 for treatment households, both statistically significant at the 1% level
  - Only estimated in these two years and only estimated using simple difference-in-differences

Assets

- Treatment increases:
  - the number of cow/bulls owned, significant at the 1% level in all rounds
  - the number of goats/sheep owned, significant at the 1% level in all rounds
  - the number of duck/hens owned, significant at the 1% level in all rounds
  - the number trees owned, significant at the 1% level in all rounds using propensity score matching and in the 2011 round for simple difference-in-differences, and at the 5% level for the 2005 and 2008 rounds using simple difference-in-differences
  - the number of rickshaws/vans owned, significant at the 1% level in the 2005 and 2008 rounds, and significant at the 10% level in the 2011 round using simple difference-in-differences, but not significant in the 2011 round using propensity score matching
  - the number of beds owned, significant at the 1% level in all rounds using simple difference-in-differences, and in the 2005 and 2008 rounds using PSM, significant at the 10% level in 2011 round using propensity score matching

- All effects decrease in subsequent survey rounds
- Magnitude of effects depends on method used

Anything else

- Treatment decreases the probability that a male's or female's primary occupation is a day labourer, significant at the 1% level in all rounds
- Treatment females more likely to be self-employed on the farm, significant at 1% level in all rounds other than the 2011 simple difference-in-differences, where it is not significant at any level

C.1.2.10 Bandiera *et al*. (2017) 'Labour markets and poverty in village economies'

Intervention

- BRAC's TUP programme
  - In 13 poorest districts
- One-off transfer of assets
  - Choose from a menu of asset bundles valued at US$ 560 in PPP terms
  - Includes livestock, assets for small-scale retain operations, tree nurseries, vegetable growing
  - Encouraged to retain the asset for two years
- Also includes a skills development programme
  - Classroom training and home visits
  - Livestock specialist visits
  - Health support
  - Training on legal, social, and political rights
- Get subsistence allowance for first 40 weeks after the asset transfer
- Programme encourages savings with BRAC and borrowing from BRAC microfinance at the end of the programme
- Programme participants are poorest group in wealth ranking of the village and determined by exclusion/inclusion criteria – only ultra-poor eligible for transfer
  - Must have an able adult woman present, cannot be borrowing from a microfinance organisation or receive transfers from the government, and meet three out of five inclusion criteria
    - Total land owned does not exceed 10 decimals, no adult male income-earner in the household, adult women in the household work outside the home, school-aged children work, household has no productive assets

Sample/evaluation design

- Survey tracks over 21,000 households from 1,309 rural villages in Bangladesh
  - Survey includes ultra-poor who are eligible for the programme and other households from the near-poor, middle-class, and upper-class
  - 6,732 ultra-poor households
- Randomly assign 40 BRAC branch offices serving these villages to treatment or control for four years
- Treated BRAC offices ran the programme in all villages within 8 km of office in 2007
- Control BRAC offices received programme in 2011
- Baseline survey conducted in 2007, midline survey conducted in 2009, and endline survey completed in 2011
- Long-run survey conducted in 2014, 93% of households were found
  - Some control villages have now been treated
- Difference-in-difference analysis

Results

Poverty

- Relative to controls, the share of households below US$ 1.25 poverty line drops by 8.4 percentage points, or a 13.5% decrease, statistically significant at the 5% level

Consumption

- Consumption expenditure per adult equivalent increased by US$ 62.62 PPP compared to controls, an 11% increase, statistically significant at the 1% level

Assets

- Value of household assets increased by US$ 39.65 PPP compared to controls, a 57% increase, statistically significant at the 1% level
- Value of cows owned by ultra-poor households increased by 122% net of the transfer value relative to controls
  - Increased by US$ 484.64 PPP after two years and by US$ 539.66 after four years, both statistically significant at the 1% level
- Value of goats increased by US$ 28.11 PPP after two years and by US$ 20.27 PPP after four years, both statistically significant at the 1% level
  - Value is statistically different at two years compared to four years, at the 1% level
  - Impact is negative net of the transfer
- Value of land owned increased by US$ 326.98 PPP compared to controls after four years, statistically significant at the 5% level, an 82% increase
  - No significant increase after two years

- Value of other business assets increased by US$ 23.84 PPP after two years and by US$ 64.76 after four years, both statistically significant at the 1% level, an 159% increase at year four
    - Value is statistically different at four years compared to two years and the 1% level
    - Value of other business assets for near-poor and middle-class households increased

Anything else

- Treatment effects on consumption and assets are non-negative at each centile, but they are larger at higher centiles
- Treatment households are 6.9 percentage points more likely to rent land after two years and 11 percentage points more likely to rent land after four years compared to controls, both statistically significant at the 1% level, an 139% increase after four years
    - Difference is statistically significant at four years compared to two years at the 10% level
- Treatment households are 2.6 percentage points more likely to own land after four years compared to controls, statistically significant at the 10% level, a 45% increase
    - No real effect after two years, increase is statistically different from two-year estimate, at the 1% level
- Household consumption expenditure, value of household assets, and value of productive assets increased after seven years
    - Always reject that the four-year impacts are equal to the seven-year impacts

C.1.2.11 Balboni *et al*. (2020) 'Why do People Stay Poor?'

Intervention

- BRAC's TUP programme
    - In 13 poorest districts
- One-off transfer of assets
    - Choose from a menu of asset bundles valued at US$ 560 in PPP terms
    - Includes livestock, assets for small-scale retain operations, tree nurseries, vegetable growing
    - Encouraged to retain the asset for two years
- Also includes a skills development programme
    - Classroom training and home visits
    - Livestock specialist visits
    - Health support
    - Training on legal, social, and political rights
- Get subsistence allowance for first 40 weeks after the asset transfer

- Programme encourages savings with BRAC and borrowing from BRAC microfinance at the end of the programme
- Programme participants are poorest group in wealth ranking of the village and determined by exclusion/inclusion criteria – only ultra-poor eligible for transfer
    - Must have an able adult woman present, cannot be borrowing from a microfinance organisation or receive transfers from the government, and meet three out of five inclusion criteria
        - Total land owned does not exceed 10 decimals, no adult male income-earner in the household, adult women in the household work outside the home, school-aged children work, household has no productive assets

Sample/evaluation design

- Survey tracks over 21,000 households from 1,309 rural villages in Bangladesh
    - Survey includes ultra-poor who are eligible for the programme and other households from the near-poor, middle-class, and upper-class
    - 6,732 ultra-poor households
- Randomly assign 40 BRAC branch offices serving these villages to treatment or control for four years
- Treated BRAC offices ran the programme in all villages within 8 km of office in 2007
- Control BRAC offices received programmed in 2011
- Baseline survey conducted in 2007, midline survey conducted in 2009, and endline survey completed in 2011
- Long-run survey conducted in 2014, 93% of households were found
    - Some control villages have now been treated
- Dropped households with initial post-treatment assets above 3, left with 3,276 treatment households
- Asset poverty trap model
- Estimates transition equation with assets
- Difference-in-difference estimation

Results

Assets

- Model shows any poverty threshold is an unstable steady state
- Estimated threshold is assets worth around US$ 504
- Beneficiaries who stay below the threshold despite the transfer lose 14% of the assets over four years, while those who are pushed past the threshold grow their assets by 16%
- Individuals who grow assets own more expensive assets (vehicles) and accumulate more expensive assets (cows) after treatment

C.2 Ethiopia

C.2.1 Social protection

C.2.1.1 Sabates-Wheeler and Devereux (2010) 'Cash Transfers and High Food Prices: Explaining Outcomes on Ethiopia's Productive Safety Net Programme'

Intervention

- Productive Safety Net Programme (PSNP) in Ethiopia – both public works and direct support
- Chronically food-insecure households receive support for six months a year for up to five years
- Temporary employment through public works given to 84% of participants
- Direct support unconditional transfers go to 16% of beneficiaries
- Transfers made in cash only, food only, or a combination of cash and food
    - Government planned to shift to cash-only
    - Cash was given in woredas with high-functioning markets while food was given in woredas with weaker markets
- Beneficiary households must have faced continuous food shortage (three months of food gap or more) in the last three years
- Other criteria include: household that has suddenly become more vulnerable due to a severe loss of assets or households without other means of social protection and support
- Payment rate was ETB 6 per day in 2005–06 or 3 kg of staple cereal
    - Increased to ETB 8 per day in 2008

Sample/evaluation design

- Two-wave panel survey collected in 2006 and 2008
- Four regions covered: Tigray, Amhara, Oromiya, and Southern Nations, Nationalities, and People's Region
- 960 households sampled
    - 120 households per woreda, 60 households per kebele (two kebele per woreda), and 60 households per village
    - 893 households in both years of the panel

Results

Consumption

- Aggregate income includes self-reported farm and non-farm income
    - Does not include the value of direct transfers (like direct support) but does include payments from public works programme

- Beneficiaries receiving payment in food payments or a mix saw a growth in income, significant at the 1% level
  - No significant impact on income for beneficiaries receiving cash payment
  - Food beneficiaries had an income growth of 59% relative to non-beneficiaries
  - Mixed (both cash and food) beneficiaries had an income growth of 45% relative to non-beneficiaries
  - These income measures include public works payments
- Excluding public works payments, food-only beneficiaries had a statistically significant impact as they had a 34% growth in income relative to non-beneficiaries, significant at the 10% level

Assets

- Food payment beneficiaries had a 62% relative increase in livestock compared to non-beneficiaries, statistically significant at the 1% level

Anything else

- Both food and mixed payment beneficiaries saw a decrease in the food gap by 1.2 months compared to non-beneficiaries, significant at the 1% level

C.2.1.2 Berhane *et al*. (2012) 'The Impact of Ethiopia's Productive Safety Nets and Household Asset Building Programme: 2006–2010'

Intervention

- PSNP in four regions of Ethiopia – Tigray, Amhara, Oromiya, and Southern Nations, Nationalities, and People's Region
  - Public works and smaller direct support programme
  - Beneficiaries work for five days a month on a public works project for each family member to support the community for either cash or food transfer
    - Transfers can be all cash, all food, or a combination
    - Wage ETB 6 in 2006, ETB 8 in 2008, increased to ETB 10 in 2010
    - Projects are conducted for six months out of the year
  - Direct support beneficiaries cannot work and thus just receive the transfer (15% of beneficiaries)
  - Programme targets food-insecure households in chronically food-insecure woredas
- Complemented with Household Assets Building Programme (HABP)
  - Increased agricultural extension services (crop science, animal husbandry, and natural resource management development agents)
  - Credit services provided through microfinance institutions
  - Replaced the Other Food Security Programme (OFSP), which included similar extension activities between 2008 and 2010 survey rounds

- High-Value Food Basket (HVFB) programme also run in some areas, mainly Amhara

Sample/evaluation design

- First survey conducted June–August 2006
- Second survey completed late May–early July 2008
- Third survey round conducted in June and July 2010
- Sample clustered at the woreda level – 68 clusters
    - Two kebeles per woreda in Amhara, Oromiya, and Southern Nations, Nationalities, and People's Region sampled
    - Three kebeles per woreda in Tigray sampled
- 25 households per kebele sampled (15 beneficiary and 10 non-beneficiary)
- 3,140 households appear in all three rounds
- 3,038 households have baseline characteristics
- HVFB sample includes 11 woredas and 1,237 households
- Questionnaire largely unchanged across survey rounds
- Difference-in-difference evaluation
- Matching used to construct a comparison group
    - Dose-response function used (number of years receiving PSNP)
    - One year of transfers is very small and thus is like receiving nothing

Results

Assets

- Households that received payments for five years increased tropical livestock unit (TLU) holdings by 0.379 compared to households that received payments for one year, significant at the 5% level
    - Increased by 1.62 in Amhara, significant at the 1% level
    - Increased by 0.55 in Southern Nations, Nationalities, and People's Region, significant at the 5% level
    - No significant impact on TLU in the other two regions
        - Tigray residents discouraged from adding livestock due to environmental degradation
    - No significant impact on TLU in drought-affected areas, but non-drought-affected areas saw an increase of 0.421 TLU for five-year beneficiary households (significant at the 5% level)
- Households that received payments for any number of years from one to five saw an increase in the value of productive assets, so no significant impact when comparing one year to five years

- Households with five years of PSNP and OFSP/HABP increased TLU by 1.001 compared to households without both programmes, significant at the 1% level
    - No significant difference in TLU holdings when comparing PSNP and OFSP/HABP with PSNP and no OFSP/HABP, or no PSNP but OFSP/HABP groups
- Households with five years of PSNP and OFSP/HABP increased the value of their productive assets by ETB 133.6 compared to households without both programmes, significant at the 5% level
    - No significant difference in the value of productive assets when comparing PSNP and OFSP/HABP with PSNP and no OFSP/HABP, or no PSNP but OFSP/HABP groups
- Beneficiaries with higher amounts of direct support transfers increased their TLU holdings, significant at the 10% level, when comparing ETB 500 to ETB 2,500
- In areas receiving HVFB, households with PSNP transfers of ETB 1,900 increased their TLU holdings by 0.451 compared to households with PSNP transfers of ETB 100, significant at the 1% level
    - PSNP transfers increased TLU holdings as transfer amount increased up until ETB 1,900, then food security plateaued for transfers greater than ETB 1,900

Anything else

- Households that received payments for five years increased food security by 1.05 months compared to households that received payments for one year, significant at the 1% level
    - Effect varies slightly by region
    - Increased by 0.93 months in drought-affected areas (significant at the 5% level) while food security increased by 1.54 months in non-drought-affected areas (significant at the 1% level)
- Children in households with five years of PSNP had 0.152 more lean season meals than children in households with only one year, significant at the 1% level
    - Meal frequency also declined less during the lean season for children, significant at the 10% level
    - No significant impact on adult meals
- Households with five years of PSNP and OFSP/HABP increased food security by 1.53 months compared to households without both programmes, significant at the 1% level
- Households with five years of PSNP and OFSP/HABP increased food security by 0.612 months compared to households without PSNP but with OFSP/PSNP, significant at the 5% level
- Households with five years of PSNP and OFSP/HABP increased food security by 1.38 months compared to households without PSNP but with OFSP/HABP, significant at the 1% level

- Households with five years of PSNP and OFSP/HABP increased their grain production by 147 kg compared to households with PSNP but without OFSP/HABP, significant at the 5% level
- Households with five years of PSNP and OFSP/HABP decreased their grain acreage by 0.16 hectares compared to households without PSNP but with OFSP/HABP, significant at the 5% level
- Households with five years of PSNP and OFSP/HABP increased their grain yield by 297.2 kg/ha compared to households with PSNP but without OFSP/HABP, significant at the 5% level
- Households with five years of PSNP and OFSP/HABP increased their grain yield by 537.9 kg/ha compared to households without PSNP but with OFSP/HABP, significant at the 1% level
- Households with five years of PSNP and OFSP/HABP were 21.4 percentage points more likely to use fertiliser than households without both programmes, significant at the 1% level
- Households with five years of PSNP and OFSP/HABP were 19.5 percentage points more likely to use fertiliser than households with PSNP but without OFSP/HABP, significant at the 1% level
- Households with five years of PSNP and OFSP/HABP were 13 percentage points more likely to invest in stone terracing compared to households with PSNP but without OFSP/HABP, significant at the 1% level
- Households with five years of PSNP and OFSP/HABP were 13.9 percentage points more likely to invest in stone terracing compared to households without PSNP but with OFSP/HABP, significant at the 1% level
- Households with five years of PSNP and OFSP/HABP were 22.6 percentage points more likely to invest in fencing than households without both programmes, significant at the 1% level
- Households with five years of PSNP and OFSP/HABP were 7.9 percentage points more likely to invest in fencing compared to households with PSNP but without OFSP/HABP, significant at the 10% level
- Households with five years of PSNP and OFSP/HABP were 16.4 percentage points more likely to invest in fencing compared to households without PSNP but with OFSP/HABP, significant at the 1% level
- Households with five years of PSNP and OFSP/HABP were 1.4 percentage points more likely to invest in water harvesting than households without both programmes, significant at the 5% level

- In areas receiving HVFB, households with PSNP transfers of ETB 1,900 increased their food security by 0.884 months compared to households with PSNP transfers of ETB 100, significant at the 1% level
    - PSNP transfers increased food security as transfer amount increased up until ETB 1,900, then food security plateaued/declined for transfers greater than ETB 1,900

C.2.1.3 Hoddinott *et al*. (2012) 'The Impact of Ethiopia's Productive Safety Net Programme and Related Transfers on Agricultural Productivity'

Intervention

- PSNP in Ethiopia
    - Public works for food or cash transfers
    - Small number (15%) received direct support transfer without participating in public works projects
- Payment was initially ETB 6 or 3 kg of cereals per day
    - Increased to ETB 8/day in 2008 and ETB 10/day in 2010
- Most public works projects in January–June
- Also, OSFP/HABP
    - Goal is to facilitate asset accumulation
    - Assistance and training to provide access to improved seeds, conduct soil and water conservation, improve irrigation, undertake beekeeping
    - HABP increased number of Development Assistants
    - Development Assistants disseminate 'technology packages' and give advice
    - PSNP clients are prioritised under HABP
- This study looks at joint role of PSNP and OSFP/HABP
- Four regions: Tigray, Amhara, Oromiya, and Southern Nations, Nationalities, and People's Region

Sample/evaluation design

- Household panel taken in 2006, 2008, and 2010
- Two-stage cluster sampling of 68 woredas
    - Two kebeles per woreda in Amhara, Oromiya, and Southern Nations, Nationalities, and People's Region sampled
    - Three kebeles per woreda in Tigray sampled
- 3,140 households in all samples
    - 3,038 with baseline data

- Dose-response model
  - Then use difference-in-difference
  - One year of transfers is very small and thus is like receiving nothing

Results

Anything else

- Receiving five years of public works transfers in the PSNP had no significant impact on production, area farmed, or yield compared to only one year of transfers
- Receiving five years of public works transfers in the PSNP and access to OSFP/HABP had no significant impact on production, area farmed, or yield compared to only one year of transfers and no access to OSFP/HABP
- Among households participating in OSFP/HABP, five years of public works transfers increased yields by 347.7 kg/hectare compared to only one year of public works transfers, significant at the 5% level
  - No significant impact on cereal production or area
- Among households with five years of public works transfers, access to OSFP/HABP had no significant effect on production, area, or yield
- Receiving five years of public works transfers in the PSNP increased the probability of investing in fencing by 16.6 percentage points compared to only one year of transfers, significant at the 5% level
  - No significant impact on probability of using fertiliser, probability of investing in stone terracing, or probability of investing in water harvesting
- Receiving five years of public works transfers in the PSNP and access to OSFP/HABP increased the probability of using fertiliser by 21.1 percentage points and the probability of investing in fencing by 29.2 percentage points compared to only one year of transfers and no access to OSFP/HABP, significant at the 1% level
  - No significant impact on probability of investing in stone terracing or water harvesting
- Among households with five years of public works transfers, access to OSFP/HABP increased the probability of using fertiliser by 23.4 percentage points (significant at the 1% level), increased the probability of investing in stone terracing by 16.9 percentage points (significant at the 1% level), and increased the probability of investing in fencing by 12.6 percentage points (significant at the 5% level)
  - No significant impact on the probability of investing in water harvesting
- Among households participating in OSFP/HABP, five years of public works transfers increased the probability of using fertiliser by 12.8 percentage points (significant at the 1% level), increased the probability of investing in stone terracing by 9.9 percentage

points (significant at the 5% level), and increased the probability of investing in fencing by 22.3 percentage points (significant at the 1% level)

- No significant impact on the probability of investing in water harvesting

C.2.1.4 Berhane *et al*. (2014) 'Can Social Protection Work in Africa? The Impact of Ethiopia's Productive Safety Net Program'

Intervention

- PSNP in Ethiopia
  - Four regions: Tigray, Amhara, Oromiya, and Southern Nations, Nationalities, and People's Region
- Goal is to provide transfers to food-insecure households in chronically food-insecure woredas to prevent asset depletion
  - Targets poor, food-insecure households with able-bodied workers – past recipients of food aid
  - Household assets and income from non-farm activities and other employment used to verify eligibility
- Public works programme
- Complemented with HABP
  - Increased agricultural extension services (crop science, animal husbandry, and natural resource management development agents)
  - Credit services provided through microfinance institutions

Sample/evaluation design

- First survey conducted June–August 2006
- Second survey completed late May–early July 2008
- Third survey round completed in June and July 2010
- Sample constructed by randomising woredas and kebeles within woredas
  - 15 beneficiary and 10 non-beneficiary households interviewed within each enumeration area
- 3,140 households in all three survey rounds
- Difference-in-difference method using dose-response model
  - Compares beneficiaries of the programme for five years to one-year beneficiaries
  - One year of transfers is very small and thus is like receiving nothing
- Propensity score matching used

Results

Assets

- Households that received payments for five years increased TLU holdings by 0.397 compared to households that received payments for one year, significant at the 10% level
- Households with five years of PSNP and HABP increased TLU by 0.999 compared to households without both programmes, significant at the 1% level
- No statistically significant difference in TLU between households with PSNP and HABP and households with just HABP

Anything else

- Households that received payments for five years increased food security by 1.288 months compared to households that received payments for one year, significant at the 1% level
- Households with five years of PSNP and HABP increased food security by 1.505 months compared to households without both programmes, significant at the 1% level
- Households with five years of PSNP and HABP increased food security by 0.818 months compared to households without PSNP but with HABP, significant at the 1% level

C.2.1.5 Gebresilassie (2014) 'The Economic Impact of Productive Safety Net Program on Poverty: Evidence from Central Zone of Tigrai National Regional State, Ethiopia'

Intervention

- PSNP in Ethiopia
- Delivers social transfers to chronically food-insecure households through public works or direct support
- Payment made in either food or cash
- This paper focuses on the Tigrai region

Sample/evaluation design

- Sample area includes five randomly selected woredas
- 600 households, 365 beneficiaries, 235 non-beneficiaries
- Propensity score matching used for evaluation, all standard errors bootstrapped
- Poverty analysis used Foster, Greer, and Thorbeck (FGT) index

Results

Poverty

- No significant impact on poverty measured using the total poverty line
- PSNP reduces poverty using the food poverty line for beneficiary households, significant at the 5% level

Consumption

- Beneficiary households increased their food consumption per adult equivalent by ETB 1,254.59 using nearest neighbour matching, by ETB 1,061.25 using kernel matching, and by ETB 1,070.22 using radius matching, all significant at the 1% level
- Beneficiary households increased their total consumption per adult equivalent by ETB 305.75 using nearest neighbour matching, by ETB 242.72 using kernel matching, and by ETB 241.50 using radius matching, all significant at the 1% level
- No significant impact on non-food consumption

Assets

- Beneficiary households increased TLU holdings by 1.966 compared to non-beneficiaries using nearest neighbour matching, by 1.845 using kernel matching, and by 2.012 using radius matching, all significant at the 1% level
- The value of productive assets for beneficiary households increased by ETB 35.609 for kernel matching (significant at the 10% level) and by ETB 38.324 for radius matching (significant at the 5% level), but the difference was not significant using nearest neighbour
- The value of durable goods for beneficiary households increased by ETB 34.518 using nearest neighbour matching, by ETB 36.075 for kernel matching, and by ETB 33.882 for radius matching, all significant at the 5% level
- The value of household goods for beneficiary households increased by ETB 89.321 using nearest neighbour matching, by ETB 80.196 for kernel matching, and by ETB 70.202 for radius matching, all significant at the 1% level

C.2.1.6 Berhane *et al*. (2015) 'Evaluation of the Social Cash Transfers Pilot Programme Tigray Region, Ethiopia. Endline Report'

Intervention

- Social Cash Transfer Pilot Program (SCTPP) in the Tigray region of Ethiopia
  - Two woredas: Abi Adi and Hintalo Wajirat
- Programme participants selected through a defined process
  - First, a list of potential beneficiaries was sent to the Community Care Coalition and the tabia authorities
  - Households were visited by two Community Care Coalition members to assess living conditions and the presence of able-bodied workers
  - List was than ranked by need
  - Community meeting in each tabia determined final list
  - Social worker visited to confirm eligibility

- Beneficiaries are extremely poor and labour-constrained
  - Extremely poor is defined as suffering extreme levels of deprivation as measured by hunger (e.g. eating only one meal per day), having no assets, no means of supporting themselves, and receiving no regular assistance from relatives
  - Labour-constrained means a household has no able-bodied members in age group 19 to 60 who can undertake work, or where there is an able-bodied adult who is responsible for more than three dependents (members that are under 19 years of age or over 60, or are unfit for work because they are chronically sick, or disabled, or handicapped, or are in school)
- Beneficiaries received a baseline monthly transfer of ETB 155. Additional transfer money depends on household make-up:
  - ETB 25 for each child under 16 plus an additional ETB 10 if the child is enrolled in school
  - ETB 40 for a disabled child under 18
  - ETB 50 for a disabled adult
  - ETB 60 for a disabled adult over 60
- Payment received at a payment point once a month
  - Can send someone else to payment point if they are unable to go

Sample/evaluation design

- Treatment group, control group (eligible households that were excluded due to quotas), and random sample of other non-beneficiaries used for programme evaluation
- Total sample of 3,667 households
  - Attrition 8.7%, so 3,351 households surveyed at endline
  - Smaller households, one region of households more likely to leave panel
- First household survey conducted May–June 2012 after programme began
- Endline household survey conducted June–July 2014
- Five monitoring surveys were conducted between the two household surveys
  - These surveys contained less information that the two household surveys
- Difference-in-difference method
- Used inverse-probability-weighted regression estimators

Results

Consumption

- No statistically significant impact of SCTPP on household food or non-food consumption measures

Assets

- Treatment households in Hintalo Wajirat had a 1.9% increase in ownership of farm productive assets, significant at the 5% level
  - Largest increase in the number of leather straps
- Treatment households in Hintalo Wajirat were 7 percentage points more likely to own livestock, significant at the 1% level
  - Added 0.5 more chickens, significant at the 1% level
- Small 0.8% increase in the consumer durable goods index for treatment households in Hintalo Wajirat, significant at the 5% level
- Treatment households in Abi Adi increased the number of bed nets but decreased the number of jerry cans and mobile phones, bed nets and mobile phones, significant at the 5% level, with jerry cans significant at the 10% level
- Treatment households in Hintalo Wajirat increased the number of jerry cans and bed nets, significant at the 1% level

Anything else

- Also included impacts on food security, child nutrition and health, child schooling and labour, and maternal health
- Treatment households increased cereal yield by ETB 3.66/timad, significant at the 10% level
  - Not significant in Abi Adi but larger increase of 5.665 significant at the 5% level in Hintalo Wajirat
- Treatment increased the proportion of households participating in selling livestock in Abi Adi by 1.4 percentage points, significant at the 10% level
  - 3% increase
- Treatment increased the proportion of households participating in wage employment in Abi Adi by 3.7 percentage points, significant at the 5% level
  - 8% increase

C.2.1.7 Kumar and Hoddinott (2015) 'The Implementation of the Productive Safety Net Program, 2014: Lowlands Outcomes Report'

Intervention

- PSNP in Ethiopia
  - This study focuses on the lowland regions of Afar and Somali
- PSNP suffers from poor targeting in these regions as many wealthy households are included

Sample/evaluation design

- Surveys conducted in 2010, 2012, and 2014
  - Panel of woredas and repeated cross-sections of kebeles and households
  - Lowlands have more household mobility so more difficult to follow up
- Sample includes three kebeles per woreda and 30 households in each enumeration area
  - 10 woredas sampled in Afar, eight in Somali
  - Three woredas added in Somali in 2014
  - 900 households in Afar, 982 households in Somali sampled in each survey rounds
- Matching methods used

Results

Assets

- No significant impact of receiving public works payments on livestock holdings in TLU in either region
- For poorest 50% of households in Somali, receiving public works payments did not have a significant impact on livestock holdings

Anything else

- No significant impact of receiving public works payments on food gap in either region
- For poorest 50% of households in Somali, receiving public works payments reduced the food gap by 0.703 months, significant at the 1% level

C.2.2 Asset transfers

C.2.2.1 Nega *et al*. (2010) 'Rural Poverty Dynamics and Impact of Intervention Programs upon Chronic and Transitory Poverty in Northern Ethiopia'

Intervention

- Food For Work (FFW) and Food Security Package (FSP) programmes in Tigray region of Ethiopia
- FFW is a rural public works programme
- FSP provides resources (credit) for a range of activities in a package to diversify income of a household and increase food security
  - Identify basic interest, provide required resources, technical assistance, and training to household
- FSP programme launched in November 2002
- Basic package includes livestock (oxen and cows), small animals (sheep and goats), poultry, beehives, seed, and fertiliser
  - Differ based on area to suit agro-ecological conditions
- Loan periods range from two to four years

Sample/evaluation design

- Panel dataset of 385 households
- Survey conducted in 2004, 2005, and 2006
- Propensity score matching used
- Participation in FSP considered for 2004 and 2005

Results

Poverty

- Households that participate in FSP have lower total poverty measured by the poverty gap by 0.032 points, compared to non-participants, statistically significant at the 1% level
  - Chronic poverty is lower by 0.027 points, statistically significant at the 10% level
- Squared poverty gap 18% lower for FSP participants compared to non-participants
- No significant impacts for FFW on poverty as a whole
  - Higher-welfare poor (first tertile) FFW participants have lower total poverty by 0.026 points than non-participants, statistically significant at the 10% level
  - Second tertile FFW participants have lower chronic poverty by 0.059 points than non-participants, statistically significant at the 10% level

C.2.2.2 Tilahun *et al*. (2016) 'Impact of Membership in Frankincense Cooperative Firms on Rural Income and Poverty in Tigray, Norther Ethiopia'

Intervention

- In the early 2000s, the Tigray regional government began providing frankincense forestland rights to rural cooperative firms
  - A rural cooperative firm is a formal organisation of communities of rural farmers
- Northern Ethiopia

Sample/evaluation design

- Household survey conducted in March 2010
  - 520 households (120 cooperative members, 39 frankincense tappers)
- Survey conducted in central and western districts of Tigray
- Ordinary least squares (OLS), probit, and tobit estimation
- Instrumental variable approach
  - Boswellia forest area
  - Number of all district-level frankincense business firms and cooperatives per 1,000 households
- Propensity score matching
- Sensitivity analysis suing Rosebaum bounds

Results

Poverty

- Households that were members of a cooperative had statistically significant lower poverty headcount compared to non-member households
  - Magnitude of the effect depends on the specification, but it is always statistically significant
- Reduction in poverty gap and poverty severity for member households compared to non-member households

Consumption

- Households that were members of cooperative had statistically significant higher log-transformed per capita adult equivalent income compared to non-member households
  - Magnitude of the effect depends on the specification, but it is always statistically significant

C.2.2.3 Blattman and Dercon (2018) 'The Impacts of Industrial and Entrepreneurial Work on Income and Health: Experimental Evidence from Ethiopia'

Intervention

- Employment intervention involving five firms in four regions of Ethiopia
  - Three light manufacturing firms, two commercial agriculture
- Study period 2010–2013
- Position in firms required no experience, although completion of Grade 8 or 10 required at some firms
- Firm positions 45–50 hours a week with a wage of US$ 1–US$ 1.50 a day
- Also included an entrepreneurship intervention as a treatment arm
  - Five days of business training and planning
  - Unconditional cash grant of nearly ETB 5,000 (US$ 300)
  - Classes of about 20
  - Must complete at least three days of training to receive the grant

Sample/evaluation design

- Sample is eligible applications to jobs at firms during their hiring batches
- Lottery done to randomise into three groups: job offer (304), entrepreneurship programme (285), and control group (358)
- Baseline survey and risk and time preferences and cognitive ability assessment conducted
- Endline surveys conducted 11 and 13 months after job offers
  - 88% tracked after 11 months, 85% after 13 months

- Interviewed 90% of households of study participants
- Attrition is associated with covariates, but not with treatment assignment
- Intent-to-treat analysis using OLS

Results

Consumption

- Income increased by 0.15 standard deviations for entrepreneurship programme participants compared to the control group
- Weekly income is ETB 12 higher than in the control group for entrepreneurship programme participants
  - One-third relative increase in relative terms
  - Similar results using a difference-in-difference analysis
- Household-level non-durable consumption is ETB 76.84 higher compared to control

Assets

- Household-level durable productive assets increase by 0.331 standard deviations compared to control

C.2.3 Increasing returns to assets

C.2.3.1 Bacha *et al*. (2011) 'Impact of Small-Scale Irrigation on Household Poverty: Empirical Evidence from the Ambo District in Ethiopia'

Intervention

- Indris small-scale irrigation scheme in Ambo district, Ethiopia

Sample/evaluation design

- 222 farmers sampled (107 irrigators and 115 non-irrigators)
- FGT index used
- Heckman two-step technique

Results

Consumption

- Irrigation increased total household consumption per adult equivalent by ETB 1,451.4, statistically significant at the 1% level

C.2.3.2 Hagos *et al*. (2012) 'Agricultural Water Management and Poverty in Ethiopia'

Intervention

- Access to agricultural water management technologies in Ethiopia
  - Micro dams
  - Deep wells

- River diversions
- Ponds

Sample/evaluation design

- Propensity score matching
- Also estimate Rosebaum bounds
- Use FGT class of poverty measures
- Survey conducted from October to December 2007 by the International Water Management Institute
  - Covers 2006/07 and two crop seasons
- 1,517 households

Results

Poverty

- Micro dams reduced poverty incidence by 37% compared to the matched data
- Deep wells reduced poverty incidence by 26% compared to the matched data
- River diversions reduced poverty incidence by 11% compared to the matched data
- Ponds reduced poverty incidence by 9% compared to the matched data
- Those using agricultural water management technologies for full irrigation have 19% lower poverty incidence than those who generally have access to agricultural water management technologies
- Depth and severity of poverty also lower
  - Results confirmed with stochastic dominance tests

Consumption

- Household income increased by ETB 760–788 per season for households with access to agricultural water management technologies compared to those who did not, statistically significant at the 1% level

C.2.3.3 Gebrehiwot (2015) 'The Impact of Agricultural Extension on Households' Welfare in Ethiopia'

Intervention

- Integrated Household Extension Programme (IHEP) in Tigray region of Ethiopia
  - Geba catchment
  - Agricultural extension programme
- Training and visit extension approach

Sample/evaluation design

- Household survey of 730 households, 361 treatment and 369 control
- Survey completed in May and June 2009
  - Three-stage stratified random sample
- Propensity score matching used

Results

Consumption

- Participation increased household income by 7.3 to 13.8 percentage points compared to control households depending on the matching method used, statistically significant at the 5% or 10% level

Assets

- Investment in livestock increased by 19 to 36 percentage points for IHEP participants compared to the control depending on the matching method used, statistically significant in all specifications but at different significance levels

C.2.3.4 Verkaart *et al*. (2017) 'Welfare Impacts of Improved Chickpea Adoption: A Pathway for Rural Development in Ethiopia?'

Intervention

- High-yielding, drought-resistant varieties of chickpeas
- Chickpea grown in rotation with cereals
- Shewa region in Ethiopia, three districts (Minjar-Shenkora, Gimbichu, and Lume-Ejere)

Sample/evaluation design

- Three rounds of panel data: 2006/07, 2009/10, 2013/14
- Instrumental variables approach
  - Spatial measure to access improved seed
    - Uses GPS coordinates for all households and distance between households that use improved seeds
  - Participation in technology transfer
  - Control function used
- 700 farm households surveyed
- Balanced panel of 606 households
- Correlated random effects model
- Double-hurdle model to estimate adoption
- Estimate the welfare outcome equation using fixed effects and instrument

Results

Poverty

- A 10% increase in the area planted with improved chickpea is associated with a 3.9 decrease in the probability of being below the US$ 2 PPP per day per capita poverty line, statistically significant at the 10% level
- No statistically significant effect on the less than $1.25 PPP per day per capita poverty line

Consumption

- A 10% increase in the area planted with improved chickpea is associated with a 12.6% increase in income per capita, statistically significant at the 5% level
- A 10% increase in the area planted with improved chickpea is associated with a 12.3% increase in total income, statistically significant at the 5% level

Anything else

- Impact of adoption is largest and statistically significant for the three lowest quartiles of households
    - Quartiles determined by land holdings
- No impact on households with the most amount of land
- Adopters devote more land/inputs to chickpea and have higher yields/profits

C.2.3.5 Buehren *et al*. (2019) 'The impact of strengthening agricultural extension services on women farmers: Evidence from Ethiopia'

Intervention

- Rural Capacity Building Project (RCBP) in Ethiopia
- Ran from 2007 to 2011 in 10 regions
    - Total of 2,500 farmer training centres
- Objective: strengthen agricultural services and make them more responsive to the needs of smallholder farmers
- Focusing on improving the effectiveness of agricultural extension services
- Sought to increase female participation in extension services
- System in Ethiopia relies on development agents who work in farmer training centres
- Development agents in RCBP received training, exposure visits, and technical and managerial support
- Existing farmer training centres also received basic materials and equipment
- Programme set up management committees of the farmer training centres
- RCBP increased the number of female extension officers

Sample/evaluation design

- Panel data from RCBP and non-RCBP kebeles
  - 82 kebeles in 23 woredas
- Sampled four regions: Amhara, Oromia, Southern Nations Nationalities and People's Region, and Benishangul-Gumuz
- First survey round conducted in December 2009 and January 2010
- Round two was conducted in March and April 2012
- 1,485 households in the panel
- Estimate the impact of RCBP at two points in time
  - Focus on heterogeneous impacts by gender
- Intent-to-treat estimator comparing households in project areas to households in non-project areas

Results

Consumption

- Only significant impact on consumption or assets is that female-headed households in RCBP areas in the 2009/10 survey had food consumption in the past week that was ETB 17.9 higher than the control, statistically significant at the 10% level

Assets

- No significant differences in asset levels

Anything else

- Male farmers in RCBP areas in the 2009/10 survey are 10 percentage points more likely to be farming more marketable crops compared to farmers in non-RCBP areas in 2009/10 survey round, statistically significant at the 5% level
  - Larger effect in 2012 round when compared to control in 2009/10 round, 18 percentage points more likely and statistically significant at the 1% level
  - Female famers have similar size effect in both 2009/10 and 2012 survey rounds, 7 percentage points (significant at the 10% level) and 21 percentage points (significant at the 1% level), respectively
- Male farmers in RCBP areas in the 2009/10 survey are 10 percentage points less likely to use intercropping compared to farmers in non-RCBP areas in 2009/10 survey round, statistically significant at the 1% level
  - Female farmers in RCBP areas in the 2012 survey round are 10 percentage points less likely to use intercropping compared to control farmers, statistically significant at the 1% level
- Male farmers in RCBP areas in the 2012 survey are 5.8 percentage points more likely to use irrigation compared to farmers in non-RCBP areas in 2009/10 survey round, statistically significant at the 5% level

- Female farmers in RCBP areas in 2012 grow more crops in the household compared to the control, statistically significant at the 10% level

C.3 Mozambique

C.3.1 Social protection

C.3.1.1 Soares *et al.* (2010) 'The Programa Subsidio de Alimentos in Mozambique: Baseline Evaluation'

Intervention

- Discusses the Food Subsidy Programme in Mozambique that began in 1990
  - Monthly transfer of cash
- Focuses on the 2008 expansion of the programme
- Programme targets the elderly, people living with disability, the chronically sick, and their dependents
- General eligibility requirements
  - Age
  - Residency for more than six months in the selected area
  - Per capita earnings less than the minimum benefit
  - Recognised to be living with a disability or chronically sick
- Subsidy is US$ 3.60/Mozambican Metical (MZN) 100, with an additional benefit of US$ 1.80/MZN 50 per dependent
  - Up to four dependents
  - Some households reported receiving more or less money than they were supposed to

Sample/evaluation design

- Look at impact on new beneficiaries with 2008 expansion in 11 districts and seven provinces
- Uses differences-in-differences approach
- Baseline survey conducted in 2008
- Follow-up survey completed in 2009
- Total treatment group surveyed was 1,016 households, with a control group of 1,650 households
  - Imperfect assignment to treatment
    - Some households were already receiving the transfer

C.3.1.2 Soares and Teixeira (2010) 'Impact Evaluation of the Expansion of the Food Subsidy Programme in Mozambique'

Intervention

- Based on the expansion of the 2008 expansion of the Food Subsidy Programme in Mozambique
- Covered 11 districts and seven provinces
- Cash transfer programme targeting food expenses, but no conditions attached in regard to where the cash was spent

Sample/evaluation design

- Difference-in-difference method used
- Districts selected for geographical diversity and logistical consideration of fieldwork
- Baseline survey conducted in September – November 2008
- Follow-up survey conducted in November 2009
- Sample used in evaluation had 1,919 households: 546 treatment and 1,373 control

Results

Consumption

- 22% increase in food consumption relative to overall consumption
  - Higher impact for female-headed households (32%) and household heads who are married (38%)
  - Statistically significant at the 1% level
- 15% increase in the probability that the household consumes flour, significant at the 10% level
- Expenditures on cereals increased by 6%
- Treatment increased the probability that adults and children eat extra meals per day

Anything else

- Treatment decreased the probability that male children aged 5–9 were working by 29%, significant at the 5% level
- Treatment increased the probably that male adults or elderly were working by 17%, significant at the 5% level
- Treatment increased the probability that females were working by 24%, significant at the 10% level
- Treatment decreased the amount of hours men and women spent working on the farm per week, significant at the 10% level

C.3.2 Increasing returns to assets

C.3.2.1 Cunguara and Darnhofer (2011) 'Assessing the impact of improved agricultural technologies on household income in rural Mozambique'

Intervention

- Looks at farmers in Mozambique
- Four selected agricultural technologies: improved maize seeds, animal traction, tractor mechanisation, and improved granaries
  - Improved maize: certified seeds (can be hybrid or not)
  - Animal traction: draught power, mainly in ploughing
  - Improved granary: storage facilities with rat guards, made from either conventional or locally available material
- Widespread drought occurred during the period when data were collected
- Analysis carried out at the regional level
  - Animal traction and tractor mechanisation only in southern provinces (Inhambane, Gaza, and Maputo)
  - Improved maize seeds and improved granary only in central provinces (Tete, Manica, and Sofala)

Sample/evaluation design

- Total household income compared between adopters and non-adopters of different technologies
- Doubly robust estimator, sub-classification and regression, and matching and regression used
- National Agricultural Survey of 2005
  - Nationally representative survey collected from September to November 2005
  - 6,149 households
  - Covers the agricultural season from September 2004 to August 2005

Results

Consumption

- None of the technologies had a statistically significant impact on total household income using matching or the doubly robust estimator
- Use of improved maize seed negatively impacted households in the fourth quintile, statistically significant at the 1% level
- Using tractor mechanisation decreased household income for lowest quintile (statistically significant at the 10% level) while it increased household income in the fifth quintile (statistically significant at the 1% level)

- Animal traction decreased household income for lowest quintile, statistically significant at the 5% level
- Improved granaries increased household income for lowest quintile (statistically significant at the 10% level), and decreased household income for the second quintile (statistically significant at the 1% level) and the fifth quintile (statistically significant at the 10% level)

C.3.2.2 Cunguara and Moder (2011) 'Is Agricultural Extension Helping the Poor? Evidence from Rural Mozambique'

Intervention

- Mozambique adopted a farmer field school approach to extension services starting in 2003/04, but it was not widespread until 2004/05
- A learning by doing approach to agriculture extension was used in 2001/02
- Used a training and visit extension approach
- A different extension model used in the two different survey rounds
- Looks at effect of NGO and public sector extension services
  - Considers private extension services that are fundamentally different
- Extension services reached 15% of households in 2005

Sample/evaluation design

- Survey data from 2004/05 agriculture season (September 2004 to August 2005)
- 6,149 households surveyed in 2005
  - 4,104 panel households sampled in 2002 and 2005
  - Focuses on the cross-section in 2005
- Uses OLS, propensity score matching, and doubly robust estimator
  - No randomisation so extension services potentially endogenous

Results

Consumption

- Households that received extension services increased their farm incomes by 15.4%, statistically significant at the 10% level using the matching estimation
  - 19.7% increase for OLS, significant at the 1% level
  - 12% increase for doubly robust estimator, significant at the 10% level

C.4 Tanzania

C.4.1 Social protection

C.4.1.1 Evans *et al*. (2014) 'Community-Based Conditional Cash Transfers in Tanzania: Results from a Randomized Trial'

Intervention

- CCT programme in Tanzania that ran from 2010 to 2012
- Targeted vulnerable groups within villages
  - Elderly and children
- Transfers began in January of 2010
- Payments were made every two months and ranged from US$ 12 to US$ 36
- Depended on household make-up
  - US$ 3/month was given for every vulnerable child/orphan 0–15 in the household
  - US$ 6/month was given for elderly at least 60 years of age
  - No household was to receive less than US$ 6/month or more than US$ 18/month
- Had to fulfil education and health requirements
  - Beneficiary children ages 7–15 had to be enrolled in school and attend 80% of classes
  - Children ages 0–5 had to attend the health clinic six times a year to monitor growth
  - Children ages 0–2 had to have vaccination and growth monitoring
  - Elderly 60+ had to visit the health clinic once a year for a basic check and orientation
  - Compliance was verified using forms
- Non-compliant households were issued warnings
  - Transfer amount reduced after second eight-month period of non-compliance

Sample/evaluation design

- Conducted in three regions – Bagamoyo, Chamwino, and Kibaha
- 80 villages, 40 treatment and 40 control
- Randomisation stratified on community size and district
- Baseline survey conducted in 2009
- Midline survey conducted in the middle of 2011 (21–24 months after transfers began)
- Endline survey conducted in late 2012 (31-34 months after transfers began)
- 1,764 households surveyed
- 6,128 individual beneficiaries surveyed

Results

Consumption

- Overall, treatment did not result in more expenditures on most categories of goods at endline
- Positive but not statistically significant increase in cigarettes, tobacco, and snuff
  - Female-led households spent more on these items
- Treatment households spent on average TZS 1,625 more a year on insurance, and this difference was significant at the 1% significance level
  - Consistent across male and female households, very poor and less poor households
- Female-led households spent more on boarding school expenses
- Poorest households spent on average TZS 1,363 more on weddings, funerals, and dowries, significant at the 10% level
- Generally, no statistically significant effect on household food consumption/expenditures
- Treatment households produced TZS 415 less 'other' flour (cassava, millet, sorghum, barley), significant at the 10% level
- Less poor households (upper half) spent TZS 446 more per week on Dona maize flour, significant at 10% significance level
- Less poor households spent TZS 1,949 less on rice, significant at the 5% level
- Households not affected by drought spent more on sugar

Assets

- Children in treatment households were 7 percentage points more likely to own shoes
  - Effect driven by children in less poor households as they were 10 percentage points more likely to own shoes
  - Differences statistically significant at the 5% level
- Female-led households were 2 percentage points more likely to own a sewing machine, significant at the 10% level
- Poorest households were less likely to own a bicycle, by 5 percentage points, significant at the 5% level
- Less poor households were more likely to own a bicycle, by 10 percentage points, significant at the 5% level
- Treatment households owned 0.38 more indigenous goats compared to the control, significant at the 5% level
- Treatment households owned 1.1 more chickens compared to the control, significant at the 1% level
- Male-led households increased the number of indigenous goats owned and decreased the number of pigs owned

- Female-led households increased the number of chickens owned
- Poorest households increased the number of indigenous goats owned
- Less poor households increased the number of dairy goats owned
- Livestock assets increased in households not affected by drought

C.4.1.2 Rosas *et al*. (2019) 'Tanzania's Productive Social Safety Net Program Midline Impact Evaluation Survey'

Intervention

- Follows expansion of the programme from the Evans *et al*. (2014) study in Tanzania
- Scale-up of programme across the country, Tanzanian Productive Social Safety Net (PSSN)
- CCT and public works programme
- Households can receive up to three types of transfers:
  - A fixed transfer of TZS 10,000 per month (US$ 4.30)
  - A fixed benefit of TZS 4,000 per month (US$ 1.7), with a possible additional transfer of TZS 12,000 per month (US$ 16.3) attached to schooling and health requirements
  - Villages with the public works programme have a guaranteed 15 days of paid work per month over a four-month period for one person in the household with a daily wage rate of TZS 2,500 (US$ 1.1)
- The requirements for the additional transfer money are:
  - Children five and older must be enrolled in school and attend at least 80% of school days
  - Children under two years old must visit the health centre monthly
  - Children between two and five must visit the health centre every six months
- Verification of health/education requirements done through forms filled out by healthcare workers/teachers
- Transfers made every two months
- Penalties for non-compliance begin after the third two-month period

Sample/evaluation design

- RCT built into expansion of programme
- Baseline survey conducted in June – July 2015
- Midline survey completed in August – September 2017
- 330 villages sampled
- Within each village 16 beneficiary households, five non-targeted households, and five households that failed the proxy means test, were surveyed

Results

Poverty

- Reduced the prevalence of poverty by 6.9 percentage points using the national basic needs poverty line
- Poverty was reduced by 10.1 percentage points
- Statistically significant effect at the 1% level

Consumption

- Treatment group households increased their monthly consumption by TZS 8,028 (roughly US$ 3.4), measured in adult equivalent units, statistically significant at the 1% level
  - 19.5% increase in monthly consumption when compared to control group
- Increased food consumption by TZS 6,252 (U$ 2.7), statistically significant at the 1% level
  - Treatment households consumed more pulses, fat, meat, and fruit than control households
- Increased non-food spending by TZS 1,784 (US$ 0.8), statistically significant at the 1% level
  - Spent more on clothing, utilities and household items, and communication and transportation
  - Did not increase their spending on alcohol and tobacco

Assets

- Treatment households were 5.2 percentage points more likely to own transportation assets
  - 24% increase relative to the control group
  - A statistically significant effect at the 1% level
- Treatment households were 6.4 percentage points more likely to own furniture, a statistically significant effect at the 1% level
- Treatment households were 5.1 percentage points more likely to own communication assets (mobile phones, radios, etc.), a statistically significant effect at the 1% level
- Treatment households were also 18.6 percentage points more likely to own livestock
- Statistically significant increases (at the 1% level) in the proportion of households owning cows and bulls, goats and lambs, pigs, and poultry for treatment households compared to the control group
  - Largest increases with goats and lambs and poultry

Anything else

- Increased the fraction of households cultivating farm plots by 6.6 percentage points
- Increased the total agriculture expenditures of treatment households by TZS 340 (US$ 0.15)
- Increased the fraction of households that buy seeds by 6.3 percentage points
- Increased the fraction of households that buy inorganic fertiliser by 2.6 percentage points
- Increased the fraction of households that buy organic fertilisers by 3.7 percentage points
- Increased the fraction of households that buy pesticides by 2.2 percentage points

C.4.2 Asset transfers

C.4.2.1 Leyaro and Joseph (2019) 'Employment Mobility and Returns to Technical and Vocational Training: Empirical Evidence for Tanzania'

Intervention

- Looks at TVET programmes in Ethiopia
  - Formal system: vocational education and training and technical education and training
    - Artisan programmes (masonry, carpentry, welding, secretarial duties, tour guiding, etc.)
    - Offered at the secondary education level
  - Informal system: lifelong learning education programmes, adult education by development colleges and university departments/institutions
- Current policy system established in 1996 and updated in 2012, 2014
- TVET coordinated by the Government of Tanzania

Sample/evaluation design

- Two models estimated
  - Logit that assesses an individual's decision to participate in the labour market
  - Multinomial logit that looks at labour market mobility
- Uses regression of ln(Wage) to look at returns to education/vocational training
- Two-stage regression where first stage estimates the probability of working
- Quantile regression
- Data are 2014 Integrated Labour Force Survey

Results

Consumption

- Workers with TVET training had incomes that were 10.6 percentage points higher than those with primary education, significant at the 1% level

- Workers with on-the-job training had incomes that were 12.1 percentage points higher than those with primary education, significant at the 5% level
- Workers with apprenticeship training had incomes that were 7.7 percentage points higher than those with primary education, significant at the 5% level
- Workers with technical training had incomes that were 14.7 percentage points higher than those with primary education, significant at the 1% level

Anything else

- General education had a higher return to education than TVET training
- TVET effect highest at lowest deciles (change in 5 percentage points from 10th percentile to 90th percentile)

C.4.3 Increasing returns to assets

C.4.3.1 Asfaw *et al*. (2012) 'Poverty Reduction Effects of Agricultural Technology Adoption: A Micro-evidence from Rural Tanzania'

Intervention

- Improved legumes varieties in Tanzania
  - Pigeon pea seeds
- Fusarium-resistant improved pigeon pea varieties (two main ones – ICEAP 00040 and 00053)
- Four districts in northern Tanzania: Babati, Kondoa, Arumeru, and Karatu

Sample/evaluation design

- Cross-section of 613 households
  - Collected from October to December 2008
- Propensity score matching
- Simultaneous equation model for technology adoption using endogenous switching by full informational maximum likelihood
- Survey conducted by ICRISAT and Selian Agricultural Research Institute (SARI)

Results

Poverty

- Adoption reduces the depth of poverty by between 8 and 10 percentage points compared to non-adopters, depending on the matching specification
- Adoption reduces the severity of poverty by between 4.4 and 8.1 percentage points compared to non-adopters, depending on the matching specification
- Adoption reduces the poverty headcount ratio by between 12 and 13 percentage points compared to non-adopters, depending on the matching specification

- Using the endogenous switching specification, adoption deceases the poverty headcount ration by 13 percentage points compared to non-adopters, statistically significant at the 1% level
- Using the endogenous switching specification, adoption decreases the depth of poverty by 6 percentage points compared to non-adopters, statistically significant at the 1% level
- Using the endogenous switching specification, adoption decreases the severity of poverty by 6 percentage points compared to non-adopters, statistically significant at the 1% level

Consumption

- Depending on the matching specification, adopters have consumption per capita that is 18 to 28 percentage points higher than non-adopters
- Using the endogenous switching specification, adoption increases consumption expenditure by 31 percentage points compared to non-adopters, statistically significant at the 1% level

Anything else

- The impacts on consumption expenditure and poverty are largest in the lowest farm-size quintiles

C.4.3.2 Larsen and Lilleor (2014) 'Beyond the Field: The Impact of Farmer Field Schools on Food Security and Poverty Alleviation'

Intervention

- Rural Initiatives for Participatory Agricultural Transformation (RIPAT) in northern Tanzania
  - RIPAT I in Arumeru district
    - Ran from May 2006 until the end of 2009
  - RIPAT II in Karatu district started two years later
    - From September 2008 until August 2012
- Modified farmer field school approach
  - Bottom-up experiential and reflective approach to learning
  - Practical demonstrations of farming techniques
  - Locally adapted 'basket of technology options'
    - Standard baskets include improved varieties of banana, new cultivation techniques, conservation agriculture, crop diversification, animal husbandry, fruit and multipurpose tress, soil and water conservation, post-harvesting technologies, participation in savings groups
- Implemented by a Tanzanian NGO RECODA
- Targeted small and medium-sized famers with at least one acre and no more than five acres of land

- Village leaders formed groups of 30–35 farmers
  - Not supposed to be rich
  - Participation voluntary and had to be willing to share knowledge with non-participants
  - Equal number of men and women

Sample/evaluation design

- 2,041 households in the sample in 36 villages (16 intervention villages)
- Household survey conducted in January 2011 in all villages
- Progress out of Poverty Index is poverty measure used
  - Considers the quality of the floor in the main dwelling and household phone ownership as time invariant indicators
- Intent-to-treat and matching estimation used
- Also use quasi-difference-in-difference by comparing RIPAT I and RIPAT II participants
  - Control is RIPAT II, which still had one and a half years of the programme left at the time of the survey

Results

Poverty

- No statistically significant impact on poverty measure of RIPAT

Anything else

- RIPAT I increased food security outcomes

C.4.3.3 Buehren *et al*. (2017) 'Evaluation of an Adolescent Development Program for Girls in Tanzania'

Intervention

- Empowerment and Livelihood for Adolescents (ELA) programme by BRAC in Tanzania
  - Core model used in Uganda (Bandiera *et al*., 2015)
- Two main interventions: vocational and life skills training with or without microcredit
- ELA interventions include
  - Setting up adolescent girls clubs
  - Conducting life skills, livelihood and vocational training
- Clubs set up in one-room house at an easy-to-reach location in the community
  - Provided with books and game equipment
  - Clubs meet five days a week for learning and recreation
- Life skills training topics: sexual and reproductive health, menstrual disorders, dangers of early pregnancy, sexually transmitted infections, HIV/Aids awareness, family planning

    - An adolescent leader is recruited from the community to facilitate club activities and give trainings
- Adolescent leader receives one-week training and a monthly stipend of US$ 15
- Livelihood training topics focus on income-generating activity trainings (small-scale agriculture, hairdressing, tailoring, computer operating, etc.)
    - Trainings provided through entrepreneurs
    - BRAC's agriculture and livestock programme assists
    - May include financial education
- Intervention also includes periodic meetings between the girls and parents and village elders
- Microfinance intervention is only provided to older adolescents
    - Includes financial literacy training and individualised business planning support
- Pilot programme conducted in 10 branches in the Dodoma and Iringa districts
    - 100 adolescent centres
    - Mix of urban and rural locations
- Intervention began with clubs in 2009, microfinance started in early 2010

Sample/evaluation design

- All treatment villages received basic ELA interventions, half received microcredit services
- 150 potential community sites randomised into two groups
    - 100 treatment and 50 control
    - 50 treatment with microfinance 50 without
- Baseline survey of 30–40 girls/village conducted in January – July 2009
    - 5,454 girls
- Follow-up survey conducted during June – November 2011 on same girls
    - 3,179 girls tracked in follow-up survey
- 19% take-up with microfinance included, 13% in treatment communities without microfinance, and 7% control community girls also received treatment
- Intent-to-treat estimation used with difference-in-difference
- Also include a local average treatment effect (LATE) analysis

Results

Consumption

- No statistically significant impacts on income-generating activities or daily earnings for treatment group in any specification

Assets

- No statistically significant impacts on household assets