Cash transfer programs in sub-Saharan Africa: measuring the impact on climate change adaptation

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Climate change is coming

- And small holders must adapt
  - Modifying planting times
  - Adopting heat, drought and flood resistant varieties
  - Changing farm portfolio
  - Improving soil and water management
  - Changing production strategies
    - Input use and timing
  - Modifying rotation of pastures and grazing times
  - Modifying timing of reproduction
  - Changing forage and animal species/breeds
- But they need support
  - Existence of policies and investment that promote access to credit, insurance, technology, markets, extension, information, etc.…

Cash transfers as an adaptation mechanism?

- Massive expansion of cash transfer programs in Sub Saharan Africa
  - Approximately half of the countries of SSA have some kind of government run CT program
- Range from universal and near universal pensions and grants to community targeted transfers
  - From national programs as big as Bolsa Familia to small pilots

Partial list of government-run cash transfers in SSA

Old age pensions	Child grants	Poverty, OVC, labor constrained	
Lesotho (80,000)	Namibia (108,000)	Malawi (26,000 hhs and scaling up)	Kenya OVC (100,000; scale up to 300,000 by 2013)
South Africa (2.6 million)	South Africa (10 million)	Zambia (9,000 hhs; scale up to 22,000)	Zimbabwe (pilot begin 2011, 55000 by 2014)
Namibia (115,000)	Zambia (begin 2010; will scale up to 33,000 hhs)	Ghana (45,000 hhs)	Uganda (pilot begin 2011, 65000 by 2015)
Botswana (91,000)	**Direct transfers plus cash for work**	Kenya Hunger Safety Net (scaling up to 60,000 hhs)	Ethiopia (Min social protection package, pilot begin 2011)
Swaziland (60,000)	Rwanda (143,000 ind and scaling up)	Mozambique (170,000 hhs)	Tanzania (10,000 hhs)
Zambia (4,700 hhs in pilot)	Ethiopia (PNSP 1.6 million hhs; BOLSA 8,000)	Lesotho (1,000 hhs in pilot; scale up to 10,000 by 2011)	

Why would cash transfers influence climate change adaptation?

It is all about increasing resilience and reducing vulnerability

- Predictable and regular cash transfers address market failures common to SSA
  - credit and insurance
  - (and labor, goods and inputs)
  - these market failures link consumption and production decisions at household level
    - particularly in context of subsistence agriculture
- Households are linked via
  - reciprocal relationships, social networks
  - economic exchanges

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5 ways in which cash transfer programs can influence climate change adaptation

1. Improve human capital

- Nutritional status
- Health status
- Educational attainment

enhance productivity

improve employability

Typically core objectives of CT programs

Underlying rationale for CCTs

2. Facilitate change in productive activities

By relaxing credit, savings and/or liquidity constraints

- Investment in productive activities
  - Use of labor, inputs
- Accumulation of productive assets
  - Farm implements, land, livestock
- Change in productive strategies, including natural resource conservation
  - New crops, techniques
  - New line of products or services
  - Sustainable land management practices
  - Use of new cultivars

3. Improve ability to deal with risk and shocks

By providing insurance via regular and predictable CTs

- Avoid detrimental risk coping strategies
  - Distress sales of productive assets, children school drop-out, risky income-generation activities
- Avoid risk averse production strategies
  - "Safety first", or eat first
- Increase risk taking into more profitable crops and/or activities
  - Specialization or diversification
    - Higher value crops or ….. migration

4. Relieve pressure on informal insurance mechanisms

By regular and predictable CTs to the poorest and most vulnerable

- Reduce burden on social networks
  - Local networks of reciprocal relationships
    - In SSA, often weakened and over burdened in context of HIV/AIDS
- Rejuvenate social networks
- Allow beneficiaries to participate in social networks
- Allow non beneficiaries to redirect their resources

5. Strengthen the local economy

- Significant injection of cash into local economy
- Multiplier effects on local goods and labor markets via economic linkages
  - Size of the multiplier depends on
    - level of integration: how much of local demand is met by local products, or imports? How much of local production is for local consumption, or exported? What are labor linkages?
    - functioning of markets: what are constraints imposed by missing/shallow credit and insurance markets?

Taken together: facilitating climate change adaptation

- All five pathways relate to increasing resilience and reducing vulnerability at the level of the household, community and local economy
  1. Human capital formation
  2. Change/adaptation in productive activities
  3. Better ability to deal with risk
  4. Reduced pressure on informal insurance networks
  5. Strengthened resilience of the local economy

↓

climate change adaptation

Where can we find a cash transfer program to check this out?

- Expansion of cash transfer programs in SSA has been accompanied by rigorous impact evaluation
- FAO's Protection to Production (PtoP) project is expanding focus beyond poverty and human development to income generating activities and climate change
  - Six countries in Sub Saharan Africa
  - Evaluation of Lesotho's Child Grant Programme (CGP is the first to look explicitly at climate change adaptation

Lesotho's CGP Program and its impact evaluation

- Goal: improve nutritional and health status and school enrolment among OVC
  - Half the population under poverty line
  - Third highest HIV prevalence in the world
  - One of highest Gini's in the world
- Quarterly cash grant of $48 targeted to poor households with OVC
- Will reach 10,000 households by end 2011
- Implemented by Department of Social Welfare
- Impact evaluation is experimental design, with randomization at level of electoral district
  - Baseline July-August, 2011
  - Follow up July-August, 2012
  - 3102 households (1531 treatment eligible)

What will we be able to estimate after the follow-up survey in 2012?

- Survey content will allow estimating impact over numerous dimensions of climate change
  - Human capital formation, including improvements in educational outcomes and health status—the classics
  - Increased investments and/or changes in productive activities—crop, livestock and non farm enterprise activities
  - Investments that improve natural resource conservation, such as sustainable land practices
  - Attitudes towards risk and risk management—this is asked directly, using questions which probe attitudes toward risk.
  - Relieving pressure on informal insurance mechanisms—this is measured directly in the section on social networks.
  - Local economy impact (via SAM/CGE model—available February)

What would we be able to look at now if we only had access to the data?

- Incidence of shocks at baseline
  - Has the household experienced any major (>50% loss) crop or livestock failure in the past 12 months for weather or pest-related reasons

What else?

- Recent changes in farming and livestock practices
  - Use of crop variety or introduction of new crops
  - Planting dates or amount of land under production
  - Implementation of soil and water conservation techniques, including zero/minimum tillage, diversion ditch/trenches and planting trees
  - Use of cover crop/ crop resdue or agricultural inputs (fertilizer, pesticide)
  - Mix crop and livestock production
  - De-stocking, portfolio of animal species or animal breeds
  - Livestock feed or veterinary interventions
- And if yes, why?
  - Changes in climate, profitability, labor saving, improving land quality, spreading risk and received advice.

Any suggestions/comments?

- Are we on the right track?
  - What else could we ask in the follow up survey?
  - Should we be asking something else in the next baseline?

Our websites

From Protection to Production Project

http://www.fao.org/economic/PtoP/en/

The Transfer Project

http://www.cpc.unc.edu/projects/transfer