Ethiopia’s PSNP – Impacts and Challenges*

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Outline

- Objectives and introduction
- PSNP – Context and features
- Impact the PSNP
  - Approach – measurement, impact;
  - Data (focus on the highlands);
  - Findings – food security, nutrition, resilience, Local Economy effects;
- Some Observations
Objectives and Introduction

- Objectives – highlight some key findings of IFPRI research on PSNP and resilience

- Rigorous and regular evaluation 2006-2014 (until the end of PSNP 3)
  - On-going evaluation of PSNP4 (2016-2020)
  - learn, adjust, redesign;

- Regular evaluation dimensions:
  - Process – targeting, payments, implementation capacity, ...
  - Outcomes – food insecurity (food gap, food expenditure), asset accumulation (TLU, house quality),

- Other evaluation dimensions:
  - Nutrition (child anthropometry, household diet diversity);
  - Vulnerability and resilience – key targets;
  - Local economy (general equilibrium) effects – productivity, growth;
Context – Incidence and Impact of Drought

Incidence of Drought in Ethiopia (1965-2015)*

- **Drought:**
  - Recurrent;
  - Some widespread, others local;
  - Appear to increase in frequency (particularly in some parts of the country);

- **There are:**
  - Other weather shocks – flooding;
  - Non-weather shocks – pests, human and animal health, economic, political (including conflict);

<table>
<thead>
<tr>
<th>Year</th>
<th>Total affected</th>
</tr>
</thead>
<tbody>
<tr>
<td>1965</td>
<td>1,500,000</td>
</tr>
<tr>
<td>1969</td>
<td>1,700,000</td>
</tr>
<tr>
<td>1973</td>
<td>3,000,000</td>
</tr>
<tr>
<td>1983</td>
<td>7,750,000</td>
</tr>
<tr>
<td>1987</td>
<td>7,000,000</td>
</tr>
<tr>
<td>1989</td>
<td>6,500,000</td>
</tr>
<tr>
<td>1997</td>
<td>986,200</td>
</tr>
<tr>
<td>1998</td>
<td></td>
</tr>
<tr>
<td>1999</td>
<td>4,900,000</td>
</tr>
<tr>
<td>2003</td>
<td>12,600,000</td>
</tr>
<tr>
<td>2005</td>
<td>2,600,000</td>
</tr>
<tr>
<td>2008</td>
<td>6,400,000</td>
</tr>
<tr>
<td>2009</td>
<td>6,200,000</td>
</tr>
<tr>
<td>2011</td>
<td>4,805,679</td>
</tr>
<tr>
<td>2012</td>
<td>1,000,000</td>
</tr>
<tr>
<td>2015</td>
<td>10,200,000</td>
</tr>
</tbody>
</table>


**Notes:** Affected - People requiring immediate assistance during a period of emergency, i.e. requiring basic survival needs such as food, water, shelter, sanitation and immediate medical assistance.
Context - Incidence and Impact of Drought

- Drought shocks have transitory and long-term impact;

<table>
<thead>
<tr>
<th>Shocks</th>
<th>Incidence</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>&quot;Low-lands&quot;</td>
<td>&quot;High-lands&quot;</td>
</tr>
<tr>
<td>Drought</td>
<td>56.3</td>
<td>45.8</td>
</tr>
<tr>
<td>Loss of household income</td>
<td></td>
<td>25.7</td>
</tr>
<tr>
<td>Reduction in household consumption</td>
<td></td>
<td>25.4</td>
</tr>
<tr>
<td>Pests or diseases that affected livestock</td>
<td>23.2</td>
<td>8.4</td>
</tr>
<tr>
<td>Loss of household income</td>
<td></td>
<td>22.0</td>
</tr>
<tr>
<td>Reduction in household consumption</td>
<td></td>
<td>23.7</td>
</tr>
</tbody>
</table>

**Source:** Authors’ calculation using PSNP Surveys (2010-2016) data.
Incidence and Impact of Drought

- Evidence of longer-term effects based on the 1984/85 drought/famine - Dercon (2004), Dercon and Porter (2014), Tafere (2017);

*Economic growth, child height, child health, cognitive and non-cognitive abilities*

- 10% lower rainfall today associated with 1 percentage point decline in growth about 4–5 years later;
- Greater severity associated with worse outcomes – about 16 percentage points lower growth (Note: average CV of rainfall high);
- affected children aged 12-36 months are significantly shorter, by at least 5 cm, as adults (20 years later);
- Second generation - Mothers’ exposure to famine in early childhood has a negative effect on their children’s health (height-for-age z-scores), cognitive (number of years of schooling) and non-cognitive (locus of control) human capital;

*Source:* Authors’ calculation using data on daily rainfall in millimetres (mm) extracted from the National Aeronautics and Space Administration (NASA) website (http://power.larc.nasa.gov/cgi.bin/cgiwrap/solar/hiestimeser.cgi?email=daily@larc.nasa.gov)
Response to drought shocks

- Response has evolved over time, still is;
- Relief – annual appeals system, shortcomings (delay, lack of predictability);
- PSNP – coordinated, multi-year, predictable, ‘productive’
- Part of comprehensive development planning;
- Broad social protection agenda;
The PSNP – Features

- **The PSNP – Objectives and Components**
  - aims to smooth consumption (protect assets) through transfers in chronically food insecure communities (targeting)
  - has two components: Public Works (PWs) and Direct Support (DS);
  - builds community assets - soil and water conservation (SWC), irrigation, roads, schools, clinics... - through PWs projects

- **The PSNP – Size**
  - Large – up to 8 million beneficiaries; Cost - US$1.5 billion (2005-09); US$2.1 billion (2010-14)
  - Multi-year, multi-donor – coordination between GoE and donors;

- **The PSNP – M&E**
  - independent and collaborative monitoring and evaluation in the design;

*Note: PSNP has fewer interventions than BRACC, but much larger*
The PSNP – Impact Summary

- **Food security** – improved food security, as measured by the *food gap*, particularly in the highlands;

- **Disincentive effects:**
  - does not reduce labour supply,
  - does not appear to crowd out private transfers.

- **Livelihoods and asset creation** - mixed evidence;

- **Economy-wide effects** - the benefits of PSNP significantly exceed the cost of PSNP transfers due to multipliers via local and national markets;
Data: Highlands (Tigray, Amhara, Oromiya, SNNP)


- Significant effort to minimize attrition:
  - Attrition rate of 15.8% (including 100 hh where woreda was dropped) or 1.7% p.a. (better than US Census Bureau)

- Major effort to ensure comparability over time:
  - Survey fielded at approximately same time of year
  - Core questions, enumerator training etc. not changed
  - Core team (JH, AS, YY) involved since 2006

- But no “non-PSNP kebeles”; therefore cannot quantitatively assess impact of public works; also, first survey occurred one year after PSNP began;
Data: Highlands

Ethiopia Productive Safety Net Program (PSNP), CSA/IFPRI Sample Survey Weredas, 2010

Legend
- PSNP
- Lakes
- Woreda Boundary
- Zone Boundary
- Region Boundary

Mapped by Ethiopian Development Research Institute (EDRI) and Ethiopian Strategy Support Program (ESSP-II) of IFPRI, 14 December 2010
Data and Approach: Highlands

❑ **Additions to core:**

- **quantitative data** at the *kebele* (since 2006) and *woreda* (since 2010) levels
  - *Woreda* data focuses on resources needed to implement PSNP and HABP; data on payment processes
  - *Kebele* data focuses on local infrastructure and implementation of PSNP and HABP
- **qualitative data and analysis** – FGDs, KII, Case histories ... at the regional, and selected woreda and kebele levels

❑ **Approaches**

- matching and difference-in-difference;
- instrumental-Variables Household Fixed Effects estimator;
- No RCT (now with LT programme);
Impact of PSNP on Child Nutrition

- PSNP improved household level (calorie) availability and food security as well as dietary diversity at the household level.

- Improvements were not seen at the child level.
  - Little change in child nutritional outcomes due to PSNP;
  - Child diet quality remains poor.

- Missing link - nutrition knowledge of mothers and the household at large:
  - Mother had limited contact with health extension workers;
  - Mother had received little information on good feeding practices;
  - Poor hygiene and water practices observed

- The new PSNP (PSNP 4) aims to achieve some of these – by linking some of these nutrition knowledge components with the PSNP;
Impact of PSNP on Resilience

- Multiple conceptualisations of resilience and vulnerability;

- **Resilience**
  - a *recovery trajectory* following a specific shock.
  - an *ex-post* approach (study reported below):

- **Impact of PSNP**
  - beneficiaries recover after no more than 2 years, rather than taking up to four years) – *resilience*;
  - Considerable food gap remains;
Impact of PSNP on the Local Economy

PsNP has two components: Transfers (T) and Community assets via Public Works (PW)

- Community assets - Soil and water conservation (SWC), Irrigation, Roads, Schools, Clinics...

Most evaluation focuses on recipient households

- But impacts may spread far beyond recipients:
  - Cash Recipients spend their money within their economy;
  - Public works affect agro-ecological and economic environment;

Implication

- Need to evaluate the FULL impact;
- Full impacts locally, and nationwide
Impact of the PSNP on Productivity and Growth

- **Yield growth:**
  - PSNP-related SWC infrastructures enhanced crop yields by 2.8 percent on average (econometric analysis);

- **Local Economy Impact:**
  - PSNP generated income multipliers ranging from 1 to 2.4 ETB per ETB transferred depending on the *kebele* (eight LEWIE models);
Significant productivity and growth challenges continue;
The PSNP4

- PSNP4 is more nutrition sensitive
  - Increasing nutrition sensitive targeting – PLW, malnourished children;
  - Improve Knowledge, Attitude and Practices (KAP) of nutrition-related behaviour through BCC and WASH
  - other innovations – social workers, …

- Livelihood improvements – livelihoods component (with a livelihoods transfer ‘scale-up’), a variant of the graduation model;
The PSNP – Challenges

- Targeting – geographic and community
  - This proved problematic in the *lowlands*;
- Timeliness of payments – much improved, some weaknesses continue;
- Graduation – difficult, less understood;
- Sustainability – resources, coverage; increasing role of GoE in financing;
- Considerable food security and vulnerability remains – even with PSNP;
- PSNP4 and ongoing evaluation
  - nutrition sensitive, livelihoods component (with a livelihoods transfer ‘scale-up’), other innovations (TDS, Social workers, ...)
  - further successes and lessons expected;
The PSNP – Challenges

- Considerable vulnerability remains;

**Two examples:**
- Up to 75% more vulnerable people in drylands in 2030 (2010=100, medium fertility scenario)
- Child Stunting;

<table>
<thead>
<tr>
<th>Stunting Incidence among Children Under 5 (%)</th>
<th>2005</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEZ zone</td>
<td>Non-PSNP</td>
<td>PSNP</td>
</tr>
<tr>
<td>Drought prone</td>
<td>46</td>
<td>47</td>
</tr>
<tr>
<td>Pastoralist</td>
<td>50</td>
<td>60</td>
</tr>
</tbody>
</table>

**Source:** Authors’ calculation using DHS (2005-2016) data. AEZ classification as earlier presentations.

- PSNP as a platform for response to shocks (relief delivery);
- Broader point: “Emergency is a failure of development”
The PSNP – Messages

- Large social protection programme can be operated in a poor country, even without means-tested targeting;

- Commitment indispensable – GoE (at different levels), development partners;

- Independent, rigorous, and regular evaluation vital;

- Genuine dialogue, learning and redesign essential;

- Complementarity – addressing emergency, enhancing resilience, and promoting development
References


Journal Articles


Book chapters

Thank You