The impact of conditional cash transfer on pastoral and agro-pastoral livelihoods in Ethiopia

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Conditional cash transfer (CCT) is considered by many as an important instrument to development. In Ethiopia a number of CCT based interventions are being implemented by the政府 as well as development partners. One of such programs was the Revitalizing Agricultural Incomes and New Markets (RAIN) that was implemented over a three year period (2009-2012). The program operated in the eastern part of the country where households are either agro-pastoral or pasturals. The treatment households had been involved in cash for work activities on natural resource management (soil and water management) and construction of rural roads.

This study was conducted to examine whether CCT program addressed its objective: to bring long term impact by protecting and diversifying the productive asset base of the targeted households.

## Methodology

Data: 897 households (214 treatments and 683 controls) were surveyed from 15 districts.

- **Propensity score matching (PSM) method** was used in estimating the average treatment effect on the treated (ATT). Four matching algorithms were used in estimating the ATT. This helped to check the robustness of the estimation and ensured that the results were not driven by the selection of a particular matching algorithm.

**Propensity score matching algorithms used:**
- Nearest neighbor (NN)
- Nearest neighbor (NN) with replacement
- Local linear (tri-cube kernel)
- Kernel (Normal density)

**Kernel parameters:**
- Density: 357.71
- Local linear: 0.0609
- Kernel: 0.0335

### Data and Methodology

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### Result

<table>
<thead>
<tr>
<th>Outcome</th>
<th>NN (i)</th>
<th>NN(5)</th>
<th>Kernel (Normal density)</th>
<th>Local linear (tri-cube kernel)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adult equivalent food expenditure</td>
<td>-3194.7***</td>
<td>3578.71***</td>
<td>3563.75***</td>
<td>3481.33***</td>
</tr>
<tr>
<td>Adult equivalent non-food expenditure</td>
<td>-139</td>
<td>-1010.23</td>
<td>1156.14</td>
<td>1083.74</td>
</tr>
<tr>
<td>Adult equivalent expenditure</td>
<td>745.18**</td>
<td>848.83**</td>
<td>818.03**</td>
<td>829.69**</td>
</tr>
<tr>
<td>Food aid/transfer</td>
<td>-0.067</td>
<td>-0.059*</td>
<td>-0.057*</td>
<td>-0.05</td>
</tr>
<tr>
<td>Household dietary diversity score-HDDS</td>
<td>0.3333**</td>
<td>0.2581**</td>
<td>0.1766**</td>
<td>0.2014**</td>
</tr>
<tr>
<td>Household food insecurity access-HFIAS</td>
<td>2.5314***</td>
<td>2.0686***</td>
<td>2.1714***</td>
<td>2.603**</td>
</tr>
<tr>
<td>Livestock sale</td>
<td>0.0952</td>
<td>0.0963</td>
<td>0.0913</td>
<td>0.0824</td>
</tr>
<tr>
<td>Livestock purchase</td>
<td>-0.0335</td>
<td>-0.0404</td>
<td>-0.0408</td>
<td>-0.04</td>
</tr>
</tbody>
</table>

Notes: Bolded figures are estimated coefficients, shaded figures are standard errors:
- * = significant at 10%  ** = significant at 5%  *** = significant at 1%

### Discussion

- Impact on expenditure and food aid
  - Food expenditure substantially and significantly increased
  - Food aid/transfer decreased
- Impact on food security situation
  - Dietary diversity showed marginal improvement
  - Food access remained lower
- Impact on productive asset building
  - No significant improvement was observed in asset building and asset protection

- CCT has at best helped the treatment households to better meet their food needs.
- The result on food security was mixed. Dietary diversity improvement could be the result of the awareness created by the program through community conversation and other means.
- The project has not encouraged households to engage in asset accumulation or asset protection. Thus the project was be limited to improving households’ immediate (day to day) need-which is entirely food.
- The project had short term contribution but remained unsustainable as it had not produced long term effect.
- Reasons for the poor results: (i) the cash transfer per households was not adequate (on average Birr 600 per month), and (ii) households were involved in the program for very few months of the year (2 – 3 months).

### Conclusion

- In order for conditional cash for work programs to bring long term and sustainable impact, the cash transfer per household has to be adequate with sufficient period of intervention.

### Recommendation

- **In order to bring long term and sustainable impact, the cash transfer per household has to be adequate with sufficient period of intervention.**