Complexities and dynamics of rural poverty in Ethiopia: 1996-2016

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Introduction

• Since 20 Years ago (start of sector development programs), Ethiopian government aim is reduce poverty mainly via economic growth, and equitable distribution of public spending as well as (redistribution in times of crisis)
• Until 2011, agricultural development led industrialisation (ADLI) was the key policy direction
• Since 2011, Ethiopia has been working to make manufacturing sector a leading sector
• Attention has been given to urban development
• Ethiopia has shown evident economic growth that is higher than the growth rates in most African countries
• The annual average GDP growth between 2001 and 2015 was around 10%
• The Per capita GDP of the country increased from USD 129 in 2001 to USD 396 in 2010/11 and increased further to about USD 794 in 2015/16.
Trend in GDP per capita
• In an effort to achieve such economic gains and reduce poverty, the Government spending has been increasing steadily (94 billion in 2010/11 to 149 billion in 2015/16)
Public spending as percent of GDP

- Total Public expenditure (% GDP)
- Recurrent (% GDP)
- Capital (% GDP)

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</thead>
<tbody>
<tr>
<td>Recurrent</td>
<td>9.27</td>
<td>9.22</td>
<td>8.19</td>
<td>8.57</td>
<td>7.9</td>
<td>6.88</td>
<td>7.23</td>
<td>7.36</td>
<td>8.26</td>
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<tr>
<td>Capital</td>
<td>19.08</td>
<td>17.41</td>
<td>19.15</td>
<td>18.23</td>
<td>16.65</td>
<td>17.76</td>
<td>17.49</td>
<td>17.33</td>
<td>18.38</td>
</tr>
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</table>
Real expenditure on pro-poor sectors (billion Birr)

Most of its budget has been used for poverty oriented sectors
<table>
<thead>
<tr>
<th>Year</th>
<th>Share of pro-poor in total public expend (%)</th>
<th>Share of pro-poor in GDP (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008/09</td>
<td>62.7</td>
<td>10.9</td>
</tr>
<tr>
<td>2009/10</td>
<td>65.8</td>
<td>12.6</td>
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<tr>
<td>2010/11</td>
<td>66.5</td>
<td>12.3</td>
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<tr>
<td>2011/12</td>
<td>70.4</td>
<td>11.9</td>
</tr>
<tr>
<td>2012/13</td>
<td>70</td>
<td>12.4</td>
</tr>
<tr>
<td>2013/14</td>
<td>68.4</td>
<td>12</td>
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<tr>
<td>2014/15</td>
<td>66</td>
<td>11.4</td>
</tr>
<tr>
<td>2015/16</td>
<td>65.7</td>
<td>12.1</td>
</tr>
</tbody>
</table>

Share spending in pro-poor sectors in GDP (%) Birr

*share of pro-poor spend in tot exp and gdp*
Ethiopia also faced various shocks including drought and inflation, which has strong effect on rural poverty.
We used Household Consumption Expenditure (HCE) Survey and Welfare Monitoring Survey (WMS) conducted by CSA since 1996 every five years.

- The sample size for HCES increases over time.
- It was 12,342 HHs in 1995/96.
- After 20 years it increased to 30,229 HHS.
- In 2010/11 and 2015/16, data collection is done in all the 12 months and hence can potentially show the seasonal pattern of consumption.
- Unlike the previous surveys, the 2015/16 HCES represents all non-sedentary areas of Afar and Somale regions.

Y2000-Y2016


0.33 0.31 0.3 0.34 0.35 0.39 0.43 0.51 0.66 0.82 0.83 1 1.34 1.4 1.6 1.7 1.9

Poverty line: increase by 90% over last 5 years

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<tr>
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</thead>
<tbody>
<tr>
<td>Kilocalorie per adult per day (Kcal)</td>
<td>2,200</td>
<td>2,200</td>
<td>2,200</td>
</tr>
<tr>
<td>Food poverty line per adult person per year (Birr)</td>
<td>648</td>
<td>1,985</td>
<td>3,772</td>
</tr>
<tr>
<td>Total poverty line per adult person per year (Birr)</td>
<td>1,075</td>
<td>3,781</td>
<td>7,184</td>
</tr>
</tbody>
</table>
The three measures of poverty

• The three well-known, Foster, Greer, and Thorbecke (1984) $P_\alpha$, class of poverty measures are used
  • *Incidence of poverty (headcount index)*: the share of the population whose consumption is below the poverty line (value of a basic basket of goods and services)
  • *Depth of poverty (poverty gap ratio)*: the average poverty gap in the population as a proportion of poverty line
  • *Severity of poverty (squared poverty gap index)*. Provides higher weight to households further away from the poverty line, and measure inequality among the poor
Trends of poverty over time revised before this
Trends in national poverty indices

- Head count index
- Poverty gap index
- Poverty severity index

1995/96: Head count index = 45.5
1999/00: Head count index = 44.2
2004/05: Head count index = 38.7
2010/11: Head count index = 29.6
2015/16: Head count index = 23.5

1995/96: Poverty gap index
1999/00: Poverty gap index
2004/05: Poverty gap index
2010/11: Poverty gap index
2015/16: Poverty gap index

1995/96: Poverty severity index
1999/00: Poverty severity index
2004/05: Poverty severity index
2010/11: Poverty severity index
2015/16: Poverty severity index

Lower by 24%
Lower 21%
Trends in rural poverty indices (by 16%)

- Head count index
- Poverty gap index
- Poverty severity index

<table>
<thead>
<tr>
<th>Year</th>
<th>Head count index</th>
<th>Poverty gap index</th>
<th>Poverty severity index</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995/96</td>
<td>47.5</td>
<td>13.4</td>
<td>5.3</td>
</tr>
<tr>
<td>1999/00</td>
<td>45.4</td>
<td>12.2</td>
<td>4.6</td>
</tr>
<tr>
<td>2004/05</td>
<td>39.3</td>
<td>8.5</td>
<td>2.7</td>
</tr>
<tr>
<td>2010/11</td>
<td>30.4</td>
<td>8</td>
<td>3.2</td>
</tr>
<tr>
<td>2015/16</td>
<td>25.6</td>
<td>7.4</td>
<td>3.1</td>
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</tbody>
</table>
### Trends in Urban poverty indices (%): by 42%

<table>
<thead>
<tr>
<th>Year</th>
<th>Head count index</th>
<th>Poverty gap index</th>
<th>Poverty severity index</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995/96</td>
<td>33.2</td>
<td>9.9</td>
<td>4.1</td>
</tr>
<tr>
<td>1999/00</td>
<td>36.9</td>
<td>10.1</td>
<td>3.9</td>
</tr>
<tr>
<td>2004/05</td>
<td>35.1</td>
<td>7.7</td>
<td>2.6</td>
</tr>
<tr>
<td>2010/11</td>
<td>25.7</td>
<td>6.9</td>
<td>2.7</td>
</tr>
<tr>
<td>2015/16</td>
<td>14.8</td>
<td>3.7</td>
<td>1.4</td>
</tr>
</tbody>
</table>
Trends in national food poverty indices (%): declined by 26%}

- Head count index
- Poverty gap index
- Poverty severity index

- 1995/96: 49.5%
- 1999/00: 41.9%
- 2004/05: 38.0%
- 2010/11: 33.6%
- 2015/16: 24.8%

- 1995/96: 14.6%
- 1999/00: 10.7%
- 2004/05: 12.0%
- 2010/11: 10.5%
- 2015/16: 6.7%

- 1995/96: 6.0%
- 1999/00: 3.9%
- 2004/05: 4.9%
- 2010/11: 4.6%
- 2015/16: 2.7%
Trends in rural food poverty indices (%): declined by 22%

- Head count index
- Poverty gap index
- Poverty severity index

1995/96:
- Head count index: 51.6%
- Poverty gap index: 15.2%
- Poverty severity index: 6.2%

1999/00:
- Head count index: 41.1%
- Poverty gap index: 10.3%
- Poverty severity index: 3.8%

2004/05:
- Head count index: 38.5%
- Poverty gap index: 12.1%
- Poverty severity index: 4.9%

2010/11:
- Head count index: 34.7%
- Poverty gap index: 11.1%
- Poverty severity index: 5.0%

2015/16:
- Head count index: 27.1%
- Poverty gap index: 7.4%
- Poverty severity index: 3.0%
Trends in urban food poverty indices: declined by 46%

Head count index
Poverty gap index
Poverty severity index
Trends in absolute poor population:

5 million people get out of poverty during GTP I, but due to population growth, we have less poor people by 3.7 million only.

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**Trends in total and absolute poor population**

- **# of poor people**
  - Y1995/96: 25.6
  - Y1999/00: 28.1
  - Y2004/05: 27.5
  - Y2010/11: 25.1
  - Y2015/16: 21.4

- **Population**
  - Y1995/96: 56.4
  - Y1999/00: 63.5
  - Y2004/05: 71.1
  - Y2010/11: 84.2
  - Y2015/16: 91.0
Trends in Gini coef. of consumption expenditure

- Rural
- Urban
- National

<table>
<thead>
<tr>
<th>Year</th>
<th>Rural</th>
<th>Urban</th>
<th>National</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995/96</td>
<td>27</td>
<td>34</td>
<td>32.8</td>
</tr>
<tr>
<td>1999/00</td>
<td>26</td>
<td>38</td>
<td>30</td>
</tr>
<tr>
<td>2004/05</td>
<td>26</td>
<td>44</td>
<td>30</td>
</tr>
<tr>
<td>2010/11</td>
<td>27</td>
<td>37</td>
<td>30</td>
</tr>
<tr>
<td>2015/16</td>
<td>28.4</td>
<td>38.0</td>
<td>32.8</td>
</tr>
</tbody>
</table>
Stochastic dominance analysis

How robust is the difference in poverty over time?
Rural first order stochastic dominance

Rural second order stochastic dominance

Rural third order stochastic dominance
Summary and conclusions

• The decline in poverty incidence was also experienced in both rural and urban areas and in all regional states.

• However, there are still 21 million absolutely poor people in the country, with 80% in rural areas.

• Despite the decline of poverty incidence in both rural and urban areas, rural poverty incidence is still twice as high as the urban poverty that warrants further attention.
Summary and conclusions....

• Income inequality measured by Gini coefficient of consumption expenditure increased from 0.30 to 0.33 at national level, due to the increase inequality in rural areas.

• In urban areas, inequality increased marginally from 0.37 to 0.38, while it increased from 0.27 to 0.33 for rural areas, which is substantial.
Summary and conclusions....

• absolute and food poverty have declined, in spite of the recent El Niño driven drought and inflations periodically that drastically hit many parts of the country including rural areas,

• Such declines in poverty over a longer period are attributed to
  • the economic growth registered over the last 15 years, which enables HH to be resilience to drought and various other shock
Summary and conclusions....

• wide-ranging and multi-faceted government programs including
  • Pro-poor government programs such as Intensification of agriculture, infrastructural development, food security programs, development of micro and small scale enterprise and urban construction and housing development
  • Emergency relief aid (food aid distributed) during droughts and the incidence of higher food inflation in urban areas
  • The rural Productive safety net program

• Despite these all efforts, rural poverty is still has not declined in recent years because the social protection programs are not sufficient and effective enough to reach the poorest of the poor
Summary and conclusions....

• Underemployment is huge in rural areas,
• Rural towns are not well developed to handle the growing rural population- rural youth
• Period drought and inflation hit rural areas the most
• The social assistances are not big enough to provide employment : PSNP, Rural finance,
• Rural finances have expanded, but cannot still met people’s demand in rural areas
• Land tenure system limiting rural urban migration
  – If a farmer permanently migrated to urban areas, his land will be taken
Thank you!
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