Well Being and Poverty in Ethiopia: The Role of Agriculture and Agency

Overarching questions

- How have the Ethiopian people fared over the past 15 years?

- How could Ethiopian livelihoods be further improved?
Key Insights

- The evolution of people’s well being has been mixed

  - Limited progress in reducing monetary poverty, despite 1.7% per capita economic GDP growth
  - More progress in improving human assets, especially in education
  - The full effect of government reforms to empower citizens have yet to be fully felt by citizens – especially gender inequalities are pronounced
Looking forward

Living in Ethiopia

- Risk, remoteness and gender inequality epitomize daily life in Ethiopia and largely determine people’s behavior
- Livelihoods are predominantly agriculture based, but labor productivity is low and many households are actually net cereal buyers

A focus on agriculture and agency holds promise to reduce poverty
A sustained 4.1% (or 1.5% per capita) agricultural growth would reduce poverty by 1/3.

This is feasible and requires:
- A diversified agricultural strategy across space and products
- Exploiting the synergies of joint use of seeds and fertilizers
- Enhanced water management and soil conservation especially in food insecure areas
- Developing rural markets (incentives, institutions, infrastructure)
- Enhanced capacity of households to manage risks, also in the food secure areas
- Remove residual institutional obstacles to off-farm employment generation
**Key Policy Implications - Agency**

- To further people’s well-being, one should continue to unlock their innate potential and strengthen their agency and opportunity structure, as indicated in the SDPRP.

- This requires:
  - Continuing progress in female school enrollment
  - Preventing early child growth faltering (child growth promotion and nutritional education programs)
  - Increasing access to information (radios!)
  - Continuing support to the decentralization process
  - Addressing the tension between informal practices and formal regulations

- Containment of the HIV/AIDS epidemic preconditions further development, warranting continuous attention
How well have the Ethiopian people fared?
Dimensions and Indicators of Well-Being

- Dimensions of people’s well being, i.e. being poor
  - wrt to an absolute (external) standard (poverty)
  - in comparison with others (inequality)
  - wrt one’s prospects of future well-being (vulnerability)

- Indicators of well-being
  - Monetary indicators (e.g. expenditures)
  - Non-monetary indicators (e.g. human capital, empowerment)
How well have the Ethiopian People Fared?

- Overall, stagnation to modest reductions in monetary poverty during the 1990s with potential signs of slight improvements in rural areas and signs of deteriorations in urban areas.

- Larger improvements in human capabilities.

- Dismal record in terms of empowerment with domestic violence a deep-rooted cultural practice and declining trend in governance indicators.
Stagnation to limited decline in poverty

- 1995 HICES/WMS survey
- 1999 HICES/WMS survey
- EPRDF assumed power
- Poorest Head Count (%) basis for MDG

Year:
- 1989
- 1990
- 1991
- 1992
- 1993
- 1994
- 1995
- 1996
- 1997
- 1998
- 1999
- 2000
- 2001
- 2002
- 2003
- 2004

Poverty Head Count (%):
- 38.4
- 38.3
- 38.5
- 36.2
Agriculture barely kept up with population growth

Real agricultural GDP growth per capita (%) from 1990-2004
Enrollment has dramatically increased

Note: data include only students in regular programs in government and non government schools.
Stunting prevalence dropped, but from very high levels

% Children Stunted (1983-2000)
“The husband’s beating stick is like butter”

% women agreeing with justification of husband beating wife

- Burns the food: 64.5%
- Argues with him: 61.3%
- Goes out without telling him: 56.2%
- Neglects the children: 64.5%
- Refuses sexual relations: 50.9%
- Agrees with at least one specified reason: 84.5%

Source: Demographic and Health Survey
“The husband’s beating stick is like butter”

Source: Demographic and Health Survey
Attitudes to domestic violence in SSA

- 2000 Malawi: 35.7
- 1999 Zimbabwe: 51
- 2001 Benin: 60.4
- 2000 Rwanda: 63.3
- 2000/01 Uganda: 76.5
- 2000 Ethiopia: 84.5
- 2001 Zambia: 85.4
- 2001 Mali: 88.8
Ethiopia scores low on governance

Comparison with regional average (Subsaharan Africa) (red line)
Country’s Percentile Rank (0-100)

No improvement in governance indicators
Key defining characteristics of daily life in Ethiopia
Stylized facts

- Risk permeates life in Ethiopia and shocks can have long lasting damaging effects.
- Remoteness defines daily life in rural Ethiopia.
- Soil nutrient depletion continues at a fast rate.
- A significant number of poor Ethiopian households are net cereal buyers.
- Gender inequalities are pronounced.
Low rains are compounded by high variability.
Radio ownership is extremely low
Use of biomass and environmental degradation

<table>
<thead>
<tr>
<th>Percentage of households using</th>
<th>1999</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Firewood (collected &amp; purchased)</td>
</tr>
<tr>
<td>Rural</td>
<td>79</td>
</tr>
<tr>
<td>Urban</td>
<td>58</td>
</tr>
<tr>
<td>Food Secure zones</td>
<td>86</td>
</tr>
<tr>
<td>Between</td>
<td>72</td>
</tr>
<tr>
<td>Food Insecure zones</td>
<td>76</td>
</tr>
<tr>
<td>Total</td>
<td>76</td>
</tr>
</tbody>
</table>
Many households are net cereal buyers

<table>
<thead>
<tr>
<th>Market Position</th>
<th>Percent</th>
<th>Production</th>
<th>Purchases</th>
<th>Sales</th>
<th>Net Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Buyers</td>
<td>53.75</td>
<td>506</td>
<td>585</td>
<td>44</td>
<td>-541</td>
</tr>
<tr>
<td>Autarkic</td>
<td>8.09</td>
<td>629</td>
<td>23</td>
<td>23</td>
<td>0</td>
</tr>
<tr>
<td>Net Sellers</td>
<td>38.16</td>
<td>1472</td>
<td>75</td>
<td>533</td>
<td>458</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Volume (Kgs)</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Buyers</td>
<td>53.23</td>
<td>556</td>
<td>782</td>
<td>65</td>
<td>-717</td>
</tr>
<tr>
<td>Autarkic</td>
<td>7.86</td>
<td>593</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Net Sellers</td>
<td>38.91</td>
<td>1579</td>
<td>88</td>
<td>601</td>
<td>513</td>
</tr>
</tbody>
</table>

- A large number of (poor) rural households are net cereal buyers
- Bulk of marketed surplus is produced by a minority of producers
Livelihoods are agriculture based, but labor productivity is low

- Low input-output, subsistence, rainfed agriculture

- Low asset base and land pressure is increasing from 0.5 ha/person in 1960s to 0.11 ha/person in 1999

- Marginal labor productivity close to zero, while marginal land productivity close to one

Policy options:

- Agricultural extensification (pushing the land frontier)
- Agricultural intensification (food and non-food)
- Diversification out of agriculture
Does a focus on agriculture and agency hold promise?
Growing out of poverty – business as usual

Poverty Head Count (%)

Year


Historical growth rate

2015 poverty target = 19.2%
**Business as usual – sectoral growth rates**

<table>
<thead>
<tr>
<th>Sectors</th>
<th>1992-2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall GDP per capita growth (annual %)</td>
<td>1.73</td>
</tr>
<tr>
<td>real annual agricultural growth (%)</td>
<td>2.2</td>
</tr>
<tr>
<td>real annual industrial growth (%)</td>
<td>5.4</td>
</tr>
<tr>
<td>real annual services growth (%)</td>
<td>7</td>
</tr>
<tr>
<td>real annual agricultural growth per capita (%)</td>
<td>-0.25</td>
</tr>
<tr>
<td>real annual industrial growth per capita (%)</td>
<td>0.45</td>
</tr>
<tr>
<td>real annual services growth per capita (%)</td>
<td>2.11</td>
</tr>
</tbody>
</table>
Robust agricultural growth provides hope
Reaching a steady and sustained 4.1% increase in agricultural production

1. Expected contribution of agricultural extensification is limited

2. Substantial scope for agricultural intensification (staple & non-staple) (100% increase in food secure, 50% food insecure areas)
   - Exploit synergies from combined seed and fertilizer use (table)
   - Better water management (especially in food insecure areas)
   - Better soil conservation and land management (especially in food insecure areas) - increase in value of production increased by 17% with stone terracing (Tigray – role of food for work)
   - Staple & non-staple crop production responsive to market accessibility (elasticities > 1)
**Large synergies from combining inputs**

<table>
<thead>
<tr>
<th></th>
<th>Food deficit</th>
<th>Food balance</th>
<th>Food surplus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cereal yield (ton/ha)</td>
<td>1.08</td>
<td>1.19</td>
<td>1.44</td>
</tr>
<tr>
<td>Cereal yield using fertilizer only</td>
<td>1.24</td>
<td>1.25</td>
<td>1.44</td>
</tr>
<tr>
<td>Cereal yield using fertilizer &amp; improved seed</td>
<td>1.65</td>
<td>2.2</td>
<td>2.63</td>
</tr>
<tr>
<td>Absolute difference between using fertilizer &amp; improved seed compared to average cereal yield (ton/ha)</td>
<td>0.57</td>
<td>1.01</td>
<td>1.19</td>
</tr>
<tr>
<td>% difference between using fertilizer &amp; improved seed compared to average cereal yield (ton/ha)</td>
<td>53</td>
<td>85</td>
<td>84</td>
</tr>
<tr>
<td>Fertilizer use rate in cereals (% area)</td>
<td>29.12</td>
<td>26.4</td>
<td>56.13</td>
</tr>
<tr>
<td>Fertilizer combined with seed rate (% area)</td>
<td>3.08</td>
<td>3.15</td>
<td>4.88</td>
</tr>
</tbody>
</table>
Reaching a steady and sustained 4.1% increase in agricultural production (2)

3. Risk of cereal price collapse and price treadmill can be managed
   - While threat is real, it must be put in context
     - Risk differs by crop (maize vs teff)
     - Non-distortive food aid management
   - Better market integration
   - Stimulate demand through increased production of non-staples
Price changes in the face of demand & supply

Maize

Teff
Reaching a steady and sustained 4.1 % increase in agricultural production (3)

4. Need for balanced agricultural growth strategy i.e. staples & non-staples (livestock, traditional and non-traditional export crops)
   - Employment generation in non-traditional export crops coupled with migration can relieve land pressure in food insecure areas
   - Non-staple sector has more growth potential
   - Helps reduce risk of cereal price fluctuation
Reaching a steady and sustained 4.1 % increase in agricultural production (4)

5. Agricultural strategies should continue further spatial diversification as envisaged in the current rural development strategy.

- **Northern drylands of Ethiopia** – intensification of cereal production (seeds&fertilizer, water & risk management, soil conservation), livestock & tree planting
- **Central and northwestern highlands** – intensive cereal production (seeds&fertilizer), dairy production
- **Perennial southern and western highlands** – intensive cereal production (seeds&fertilizer) and increased productivity and marketing efficiency of coffee
- **Central Ethiopia around Addis** – intensive cereal production (seeds&fertilizer), dairy industry, tree planting and non-traditional agricultural export (flori- &horticulture)
Reaching a steady and sustained 4.1% increase in agricultural production (5)

6. Strengthening household ability to cope with risks (health and weather) (technology adoption and portfolio diversification)

- Supplemental irrigation
- Productive safety nets (build assets, encourage risk taking, promote market development, reliable funding)
- Weather based insurance (where irrigation is not possible) (less moral hazard, pilot institutional arrangements)
- Health interventions
Reaching a steady and sustained 4.1 % increase in agricultural production (6)

7. Promote market connectivity through improved road access & access to info → benefits both agriculture and non-agriculture

8. Need to better understand determinants of technology adoption
   - land tenure (short term vs long term investment)
   - Input, factor and output market development

9. Remove remaining institutional obstacles to the generation of off-farm employment and private sector growth to facilitate the structural transformation out of agriculture
Institutional environment

- Improvements in investment climate needed to facilitate the private sector response
- Substantial progress in some areas (e.g. business registration, tax management and customs)
- Substantial residual uncertainty
  - Urban land market
  - Competition law
  - Inefficiency in the banking sector
Strengthening people’s agency and empowerment
Empowerment – some concepts

Empowerment = process of enhancing a person’s capacity to make choices and transform these choices into desired actions and outcomes.

The status of empowerment is the outcome of the interaction between the person’s:

- **agency**, i.e. his asset endowments (material, financial, human, informational, organizational and psychological assets)
- **opportunity structure**, i.e. formal and informal institutional environment or the laws, regulations and norms governing people’s behavior)
Empowerment – conceptual framework
“The critical role of (female) education for people’s well-being cannot be sufficiently underscored”

- Bringing all female adults up to 4th grade would
  - Reduce poverty incidence by 12 percent (or 4 % points)
  - Reduce under 5 child mortality by 5 % points
  - Reduce child stunting prevalence by about 8 %
Female adult education, distance to school, and risk management tools are key to raise girls’ enrollment

- Female adult education key for future enrollments
  - prob (girl being enrolled) increases by 1.6% point for each yr of education hh head
  - Important externality effects – girls in villages with 50% of the adult women literate are 22% points more likely to be enrolled
- Children more than 13 km away from a school are 18 percentage points less likely to attend.
- Households withdraw their girls (not their boys) from school in case of shocks
- Income has only modest positive impact
Nonetheless, a strong gender bias remains

- Holding everything else constant, girls in rural areas are 12% points less likely to be enrolled.

- In other words, about one million people of primary school age are denied schooling merely because of their gender, i.e. irrespective of the income of the household, the parental educational status, the distance to the school, the quality of the schooling.

- Even urban girls are 4.3% points less likely to be enrolled.

Gender inequality poses a tremendous burden on Ethiopia’s development.
MOFED, beware! Early child malnutrition impedes future economic growth

- Child growth faltering is especially severe between 6 and 24 months with limited catch up thereafter → permanent damage
- Early child growth faltering affects psychomotor and cognitive development, delays and shortens school enrollment and affects future earning potential
- Imparting nutritional knowledge through child growth promotion and maternal education programs provides a timely and effective complementary intervention in addition to parental education, income, sanitation

- Need for better risk management tools - household income shocks negatively affect child growth
- Need for clearer articulation of institutional responsibilities
Listen to the radio!

- Information is a powerful transformer
- Community radios provide a commanding medium to transmit information.
- Evidence suggests that providing the poorest quintile with a radio would increase average consumption by 5%, reduce poverty incidence by 11%, and reduce the poverty gap by 40%.
- Need for increased radio ownership, an appropriate legal framework for broadcasting and a plurality of radio licensing
Enhancing people’s opportunity structure – Continuing tension between customary traditions and laws

- the repressed position of women

- Better application of existing laws in line with word and spirit of Article 25 of the constitution and the National Policy on Women

- Address social norms and practices through supporting civil society organizations promoting gender equality & providing shelter and legal advice for abused women

“Stop violence against women!”
“Prepared by Cheha Woreda Women and Teacher’s Association”
Enhancing people’s opportunity structure – Continued support to decentralization and the development of independent civil society

- Continuous emphasis on capacity building at the Woreda and Kebele level to ensure effective use of block grants for poverty reduction

- Enhancement of the interface between kebele and woreda councils and between citizens and both councils

- Increased involvement of citizens in the formulation of Kebele plans, budgeting and monitoring
Improving people’s well being in Ethiopia - summary
Risk-remoteness; agriculture and agency

- Risk, remoteness, gender inequality and agricultural based livelihoods epitomize daily life in Ethiopia.

- Despite substantial efforts in the past, agricultural production has barely kept up with population growth.

- Nonetheless, substantial potential to increase agricultural productivity, especially in food secure, but also in food insecure areas.

- A continued focus on agriculture and agency holds promise to reduce poverty.
Agricultural strategies will need to:

- Expand beyond cereals and focus more on livestock and other non-staple crops.
- Be spatially diverse in their technologies (combined input packages, water management and soil conservation) and product choice.
- Strengthen people’s ability to manage risks both in food insecure and food secure areas.
- Enhance connectivity to markets and urban growth centers (infrastructure and information).
- Improve the investment climate to foster off-farm employment generation and facilitate the structural transformation.
To unlock people’s innate potential and improve their ability to make effective choices both in the economic and social spheres

- A continued focus on enhancing female school enrollment is critical (distance to schools, risk)

- Early child growth faltering should be reduced (child growth promotion and nutritional education programs)

- Access to information should be dramatically increased (radio ownership and community radio licensing)

- Tension between customary traditions and laws should be addressed

- Continued support to decentralization and empowerment of citizens
Final caveats

- To be sure, any prospects for future poverty reduction will hinge on an adequate containment of HIV/AIDS which will continue to require unrelenting support from the highest political levels.

- Enhancing Ethiopia’s capability to undertake rigorous empirical poverty analysis and improving access to its rich and comprehensive data bases by different stakeholders will be key to foster its tradition of evidence based policy making.

- Continuous monitoring and evaluation necessary to foster evidence based policy making.