

# NEWSLETTER – Ethiopia Strategy Support Program II (ESSP II)

July - August 2012

### **New ESSP II Publications:**

- Fantu Nisrane. 2012. Growth in total factor productivity in the Ethiopian agriculture sector: Growth accounting and econometric assessments of sources of growth. ESSP II Working paper 37
- Kibrom Tafere and Ibrahim Worku. 2012. Consumption patterns of livestock products in Ethiopia: Elasticity estimates using HICES (2004/05) data. ESSP II Working Paper 38
- Bart Minten, David Stifel, and Seneshaw Tamru. 2012.
   Structural transformation in Ethiopia: Evidence from cereal markets. ESSP II Working Paper 39
- David Stifel, Bart Minten, and Bethlehem Koro. 2012.
   Economic benefits and returns to rural feeder roads: Evidence from a quasi-experimental setting in Ethiopia. ESSP II Working Paper 40
- Gelan, A., E. Engida, A. S. Caria, and J. Karugia. 2011. Integrating livestock in the CAADP framework: Policy analysis using a dynamic computable general equilibrium model for Ethiopia. ESSP II Research Note 13
- Minten, B., D. Stifel, and S. Tamru. 2011. Structural transformation in Ethiopia: Evidence from cereal markets. ESSP II Research Note 14

#### **Capacity Building:**

- A GIS training was given to 19 trainees from CSA, ATA, and ERA by Jose Funes, Helina Tilahun, and Mekamu Kedir. May 30-June 01, 2012.
- An intensive course on "Micro Econometrics" was given by Prof. David Stifel. June 4-15, 2012, for 35 regional university students and lecturers.



Prof. David Stifel and Derek
Headey gave a half day training
on "Writing, Presenting, and
Publishing for Development
Economics" for 24 trainees on
June 20, 2012.

### **Upcoming Events!**

- The Tenth International Conference on the Ethiopian Economy will be held July 19-21, 2012 at the Ethiopian Economic Association in collaboration with IFPRI/ESSPII.
- A half-day workshop on "Writing, Presenting, and Publishing for Development Economics" will be held on July 18 in the EEA building for members of the EEA.
- Three papers from ESSPII researchers have been selected to be presented in the three-yearly conference hosted by the International Agricultural Economics Association (IAAE), to be held on August 18, 2012 in Foz do Iguaçu, Brazil.

## Highlights of presentations given at the Conference 'Food Price Dynamics and Policy Implications in Ethiopia'. Ghion Hotel. May 24, 2012.

Crop food price dynamics in Ethiopia. Tadesse Kuma.

- Trend analysis shows that food prices surged in 2008, started to stabilize in 2009, began to rise in 2010 and peaked in the early 2012.
- Not evident to find a consensus on the causes of the drastic food price rise.
- The negative effects of high food prices could have been tempered if policy makers had been better informed about the food price situation.

Urban wage behavior during price hikes: The case of Ethiopia. Ibrahim Worku.

- Casual workers in urban Ethiopia have been hit hard by rapid food inflation, particularly the ultrapoor: 10-20% loss of disposable income.
- Does Ethiopia need an urban social safety net? One option is to index cash transfers to the poor person's price index.

**Determinants of cattle prices in Ethiopia.** Fantu Nisrane.

- Analysis of the ILRI data yields some important insights into market price determination in terms of cattle characteristics and spatial and seasonal variation.
- Results on changes in prices over time are more complex: international factors provide a fairly strong explanation for part of the price increase, as does non-food inflation.
- Yet much of the change is still unexplained.

Structural transformation in Ethiopia: Evidence from cereal markets. Bart Minten.

- There are five important drivers for the structural changes in cereal economy in Ethiopia in the last decade: fast economic growth, leading to demand changes; urbanization and increase in commercial surplus; improved roads and drop in transportation costs; universal access to mobile phones by traders and brokers; and cooperative marketing took off but might be over the top.
- Important improvements have thus happened in the last decade in Ethiopia's food marketing system, traditionally identified as a major cause of food security problems in the country.
   Spatial integration of cereal markets in Ethiopia. Seneshaw Tamru.
- Cereal markets function much better at the end than in the beginning of the decade.
- Continuous investments to improve market integration even further are desired given the important benefits of having integrated markets for producers and consumers alike.

Short-term welfare effects of wheat price changes on farm households in Ethiopia in the context of increasing intensity of adoption of improved wheat varieties. Asfaw Negassa.

- There is evidence for positive but heterogeneous welfare effects of wheat price changes based on the observed different levels of intensity of adoption of improved wheat varieties.
- Increasing the intensity of improved wheat adoption decreases the likelihood of farmers being net buyers and increases the likelihood of being net seller of wheat.
- Farmers need to use improved wheat on about 80% of their total wheat area in order to have maximum positive welfare effect as a result of wheat price increases.

### Highlights of other presentations in May - June, 2012:

Weather insurance: Results from a randomized experiment in Ethiopia. Guush Berhane. AAU AC Chamber. May 11. Alemayehu Seyoum Taffesse. 14 Technical Meeting, Rome, Italy, June 13-14.

 Early results from the randomized field experiment (piloting) show that informal risk-sharing groups, such as Iddirs, can be exploited to help reduce basis risk. Iddirs can be encouraged to make payouts to members in the event of individual household specific crop losses, addressing part of the basis risk.

Impact of sustainable land and watershed management (SLWM) practices in the Blue Nile. Emily Schmidt and Fanaye Tadesse. AAU AC Chamber. May 18, 2012.

- Farmers that sustain SLWM experience higher value of production in the medium term; significant benefits are not experienced until after 7 years of maintenance.
- The longer one sustains SLWM, the higher the marginal effect, although benefits of investment in SLWM at the private farm-plot level may not outweigh the opportunity costs of non-farm labor.

Aspirations and household choices: Evidence from a randomized field experiment in rural Ethiopia. Alemayehu Seyoum Taffesse. AAU AC Chamber. June 08, 2012.

- Watching documentaries of local success stories affect perception more than watching local TV show (placebo); not so much seeing the documentary, but discussing it with friends who've seen it.
- Impact more important on education-related aspiration.
- Indication of positive effects onto demand for credit.

**Poverty mapping: An overview of small area estimation (SAE).** David Stifel. CSA Conference Room. May 29, 2012.

The goal of SAE Poverty Maps is to produce disaggregated estimates of welfare that are accurate
and easily calculated. They are not necessarily maps; also highly disaggregated databases of
welfare (poverty, inequality, average consumption).

Visit our blog to download up-to-date working papers. http://essp.ifpri.info/publications/



### NEWSLETTER – Ethiopia Strategy Support Program II (ESSP II)

July - August 2012

### **Ethiopia Strategy Support Program II**

### **Research Initiatives 2012:**

- Agricultural Productivity: Performance and Constraints
- Determination of Food Prices
- Determinants of Adoption and Impacts of Sustainable Land/Watershed Management
- Dynamic Implications of Production Shocks and Policy on Livestock Markets and Household Welfare: A Sectoral and Economywide Analysis
- Aspirations, Risk and Household Investment Behavior
- Agricultural Growth Program (AGP) Impact Evaluation
- Accelerating Agricultural Market Transformation in Ethiopia: Processes, Potentials, and Challenges
- The Teff Value Chain
- Understanding and Improving Agricultural Extension Service Delivery in Ethiopia

### **Capacity Building Initiatives 2012:**

- Ethiopian Development Research Institute (EDRI)
  - Support to EDRI SAM/CGE Analysis
  - Support to short-term policy analysis on cereal markets, inflation, and economic growth
  - Joint seminar series
- Central Statistical Agency (CSA)
  - Support to GIS analysis
  - Federal and regional GIS training
  - Strengthening of data dissemination through REKSS
- Ministry of Agriculture (MoA)
  - Support to agricultural and food security policy analysis
  - Creation of operational agricultural policy data base
  - Training on agricultural policy analysis

### **Policy Related Analysis:**

Economic benefits and returns to rural feeder roads: Evidence from a quasi-experimental setting in Ethiopia by David Stifel, Bart Minten, and Bethlehem Koro. ESSP Working Paper 40

- In this paper we estimate households' willingness-to-pay for rural feeder roads in Ethiopia.
- The problem of endogenous road placement is addressed by a purposeful data collection process as the survey site was chosen in such a way that the primary difference between households in the otherwise homogeneous region is that transport costs to the same market differ substantially within the region.

Average travel times and transport costs to the market town

|                         | Travel time (hours) | Transport cost (Birr/Quintal) |  |  |
|-------------------------|---------------------|-------------------------------|--|--|
| Transport cost quintile |                     |                               |  |  |
| Least remote            | 1.4                 | 18.4                          |  |  |
| Quintile 2              | 3.7                 | 40.1                          |  |  |
| Quintile 3              | 4.9                 | 54.4                          |  |  |
| Quintile 4              | 6.0                 | 61.1                          |  |  |
| Most remote             | 6.7                 | 69.1                          |  |  |
| Total                   | 4.5                 | 48.6                          |  |  |

Source: Authors' calculations from Ethiopia Rural Transport Survey 2011

#### Findings:

- We find that the benefits of reducing transportation costs by 50 USD per metric ton for the most remote households would result in benefits worth roughly 35 percent of household consumption.
- A hypothetical gravel road built halfway through the survey site (i.e. 21 km) that lasts 10 years will have an internal rate of return that ranges from 12 to 34 percent, using conservative assumptions (excluding demand for imported consumption).
- We interpret the 50 percent reduction in costs as a conservative estimate of the returns to a road on which only intermediate means of transport such as donkey-drawn carts are made available, while the elimination of costs is more akin to the provision of motorized transportation. As such, we are cognizant that the true benefits are likely to be somewhere in between the two bounds.

**Estimated Internal Rates of Return for different road lengths** 

| Length of gravel    | Ini          | Initial cost/benefit* |       | Internal Rate of Return** |  |
|---------------------|--------------|-----------------------|-------|---------------------------|--|
| road (km)           | Total        | Without consumption   | Total | Without consumption       |  |
| Road reduces travel | cost to zero |                       |       |                           |  |
| 7                   | 1.5          | 2.4                   | 0.60  | 0.35                      |  |
| 14                  | 1.6          | 2.4                   | 0.58  | 0.34                      |  |
| 21                  | 1.6          | 2.4                   | 0.57  | 0.34                      |  |
| 28                  | 1.9          | 2.8                   | 0.47  | 0.28                      |  |
| 35                  | 2.3          | 3.5                   | 0.37  | 0.20                      |  |
| Road reduces travel | cost by half |                       |       |                           |  |
| 7                   | 2.9          | 4.6                   | 0.27  | 0.15                      |  |
| 14                  | 3.1          | 4.8                   | 0.25  | 0.14                      |  |
| 21                  | 3.2          | 5.0                   | 0.23  | 0.12                      |  |
| 28                  | 3.4          | 5.3                   | 0.20  | 0.11                      |  |
| 35                  | 4.1          | 6.4                   | 0.14  | 0.07                      |  |

Source: Authors' calculations from Ethiopia Rural Transport Survey 2011 Notes: \* Assuming a cost of 1 million Birr per kilometer; \*\* Assuming a 10-year life span of the road and 5 percent annual maintenance costs

These results suggest that investments in rural feeder roads are cost-effective ways to help reduce widespread poverty even in unfavorable settings where (a) small-scale farmers have low levels of marketed agricultural surplus, (b) nonfarm earnings opportunities are negligible, and (c) the provision of motorized transport services is not guaranteed.

IFPRI – ETHIOPIA STRATEGY SUPPORT PROGRAM II

http://essp.ifpri.info

Contact:
Bart Minten
IFPRI c/o ILRI

P.O. Box 5689, Addis Ababa, Ethiopia

Tel: +251 11 6 17 25 55 Fax: +251 11 6 46 23 18

Email: mahlet.mekuria@cgiar.org

INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE

http://www.ifpri.org

Contact: 2033 K Street, NW • Washington, DC 20006-1002 USA

Tel: +1 202 862 5600 E-mail: <u>ifpri@cgiar.org</u> ETHIOPIAN DEVELOPMENT RESEARCH INSTITUTE

http://www.edri.org.et/

Contact: P.O. Box 2479, Addis Ababa, Ethiopia

Tel: +251 11 5 50 60 66; +251 11 5 52 53 15

Fax: +251 11 5 50 55 88 Email: exe-director@edri.org.et