

Impact Evaluation of Feed the Future Programs in Ethiopia (2013–2017)

Feed the Future (FTF) is a major US Government program that aims to address the root causes of global hunger by sustainably increasing agricultural productivity to meet the demand for food and reducing malnutrition, supporting and facilitating access to markets, and increasing incomes of the rural poor.



ESSP II is working closely with CSA to carry out the baseline survey for the Feed the Future Zone of Influence. The actual survey team was dispatched to the field to collect baseline data from 149 woredas in mid-June 2013.

New ESSP Publications

- Ethiopia's Value Chains on the Move: The Case of Teff. Bart Minten, Seneshaw Tamru, Ermias Engida, and Tadesse Kuma. 2013. *ESSP Working Paper 52*.
- The Cost of Adapting to Climate Change in Ethiopia: Sector-Wise and Macro-Economic Estimates. Sherman Robinson, Kenneth Strzepek, and Raffaello Cervigni. 2013. *ESSP Working Paper 53*.
- Using Evidence in Unraveling Food Supply Chains in Ethiopia: The Supply Chain of Teff from Major Production Areas to Addis Ababa. Bart Minten, Seneshaw Tamru, Ermias Engida, and Tadesse Kuma. 2013. *ESSP Working Paper 54*.
- Does Internal Migration Improve Overall Well-Being in Ethiopia? Alan de Brauw, Valerie Mueller, and Tassew Woldehanna. 2013. *ESSP Working Paper 55*.
- Spatial Integration of Cereal Markets in Ethiopia. Seneshaw Tamru. 2013. *ESSP Working Paper 56*.
- The Last Mile(s) in Modern Input Distribution: Evidence from Northwestern Ethiopia. Bart Minten, Bethlehem Koro, and David Stifel. 2013. *ESSP Research Note 24*.
- The Teff Value Chain on the Move. Bart Minten, Seneshaw Tamru, Ermias Engida, and Tadesse Kuma. 2013. *ESSP Research Note 25*.
- Targeting Food Security Interventions: The Case of Ethiopia's Productive Safety Net Programme. Sarah Coll-Black, Daniel O. Gilligan, John Hoddinott, Neha Kumar, Alemayehu Seyoum Taffesse, and William Wiseman. 2013. *ESSP Research Note 26*.

Upcoming Events

- The 11th International Conference on the Ethiopian Economy will be held July 18–20, 2013 at the Ethiopian Economic Association, in collaboration with IFPRI/ESSP II.

Highlights of Presentations in May – June, 2013

Using Evidence in Unraveling Food Supply Chains in Ethiopia: The Supply Chain of Teff from Major Production Areas to Addis Ababa. Bart Minten.

May 08, 2013. EDRI Meeting Room.

- Value chains are relatively short and average farmers obtain a high share, of about 80 percent, of the final consumer price in the major terminal market, Addis Ababa. Producer prices decline the further farmers live from the city.
- Stock release by farmers is smooth over the year and the importance of distress sales after harvest is lower than commonly assumed.

Impact of Sustainable Land and Watershed Management (SLWM) Practices in the Blue Nile. Emily Schmidt. May 10, 2013. Hilton Hotel and May 02, 2013. EDRI Meeting Room.

- Households that construct and sustain SLWM for at least 7 years, experience higher value of production in the medium term. The longer one sustains SLWM, the higher the effect of sustaining an extra year.
- Benefit–Cost scenarios suggest that benefits do not outweigh costs immediately.

Perceptions on the Impact of Improved Teff Technologies by Exposed Farmers. Bart Minten. May 28, 2013. Agricultural Transformation Agency (ATA).

- Participating farmers declare that row planting and transplanting have teff yields that are 12% and 41% higher, respectively; and that row planting does not lead to higher straw yields, while transplanting have yields that are 39% higher.
- However, perceptions on the potential of improved technologies (broadcasting versus row planting versus transplanting) are much higher; exposed farmers estimate that teff yields would double because of these new technologies.

Impact of Increased Teff, Wheat, and Maize Productivity on Economic Growth, Incomes, and Prices. Evidence from a CGE model of the Ethiopian Economy. Ermias Engida. May 29, 2013. Agricultural Transformation Agency (ATA).

- Investments in teff, wheat, and maize sub-sectors have wider economic effects, particularly in cereal-based moisture-sufficient highlands. There is a non-linear relationship between production increases and economic growth.
- All types of households (rural, urban, poor, non-poor) benefit of income growth due to increased cereal productivity; however, urban and non-poor households seem to benefit the most. Need to investigate mechanisms through which non-poor and rural producers derive greater benefits.
- Prices for teff, wheat, and maize all decline with higher productivity.

Cows, Missing Milk Markets, and Nutrition in Rural Ethiopia. Derek Headey. June 11, 2013. ILRI Campus.

- If markets are missing, production and consumption decisions are not separable. Production decisions can then directly affect nutrition.
- Ownership of cows is associated with higher milk consumption by children 6–12 months, improvements in height-for-age z-score, and reduction in stunting.

Land Constraints and Agricultural Intensification in Ethiopia: A Village Level Analysis of Higher Potential Areas. Mekdim Dereje. June 19, 2013. EDRI Meeting Room.

- 'Forced' by land constraints, small-scaled farmers apply more fertilizer and other purchased inputs, use more family labor per hectare, increase cereal yields (teff and maize), and increase the overall value of output per hectare.
- However, land constraints are strongly linked to lower incomes.

Capacity Building

ESSP/EDRI organized, in collaboration with Ethiopian Economics Association, a two weeks training on 'Applied Microeconometrics' by Prof. David Stifel from June 17–28, 2013 for representatives from all regional universities of Ethiopia at the EEA meeting Room.

Staff News

Derek Headey, Research Fellow at IFPRI, has left Addis Ababa and relocated to the head office.



Ethiopia Strategy Support Program II

Research Initiatives 2013:

- Agricultural Productivity: Performance and Constraints
- Determination of Food Prices
- Determinants of Adoption and Impacts of Sustainable Land and 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
- Tef Value Chain
- Tef Technology Study
- Understanding and Improving Agricultural Extension Service Delivery in Ethiopia
- Weather Index Insurance
- Evaluating Feed the Future (FTF) Program
- Social Cash Transfer Program (SCTP)

Capacity Building Initiatives 2013:

- **Ethiopian Development Research Institute (EDRI)**
 - Support to EDRI SAM/CGE analysis
 - Support policy analysis on agricultural productivity, markets, and economic growth
- **Central Statistical Agency (CSA)**
 - Support to GIS analysis and federal and regional GIS training
 - Support impact evaluation of FTF and PSNP
- **Ministry of Agriculture (MoA)**
 - Support analysis of impact of agricultural extension and impact of new agricultural technologies
 - Support impact evaluation of the Agricultural Growth Program (AGP)
- **Agricultural Transformation Agency (ATA)**
 - Support the establishment and scouting of the Ethiopian Soil Information System geo-database and survey through GIS analysis
 - Support the teff research
- **Ethiopian Economics Association (EEA)**
 - Technical and financial support to the Price Dynamics Hub
 - Support the annual conference

Policy Related Analysis

The Cost of Adapting to Climate Change in Ethiopia: Sector-Wise and Macro-Economic Estimates by Sherman Robinson, Kenneth Strzepek, and Raffaello Cervigni. ESSP Working Paper 53.

- This paper uses analyses of climate change effects on selected key sectors of Ethiopia's economy— agriculture, road infrastructure, and hydropower—to estimate both sector-wise and economy-wide estimates of impacts and adaptation costs.

Results:

- Impact of climate change: (1) Climate change has significant negative impacts on welfare; by 2050 climate change could cause GDP to be 8–10 percent smaller than under a no-climate change baseline. (2) Climate change increases variability in agriculture income; the variance in yields seems to increase with time, and the shocks become more negative. (3) The impacts of the shocks on electricity generation are significant; the climate change scenarios lead to large variations in (planned) exports, but in no scenario is there a significant shortage or price rise in the domestic market. (4) Climate change affects more severely the poor and certain parts of the country.
- The analyzed adaptation investments (increase irrigated area; increase research and development for agriculture; modify plans for expansion of hydroelectric power; build climate resistant road infrastructure) significantly offset (but do not eliminate) the impact of climate change shocks.
- Adaptation to climate change might cost an annual average of USD 0.8–2.8 billion, including both direct and indirect costs. If one takes into account residual damages, which may not be addressed by adapting existing development plans, total annual average costs range USD 1.2–5.8 billion.

Overview of direct sectoral adaptation costs, indirect costs, and residual damage for the four climate change scenarios (annual average 2010–2050)

	Wet 2	Dry 2	Wet 1	Dry 1
Sector adaptation costs (USD million)				
Agriculture	69.6	70.9	70.1	67.8
Road transport	88.4	86.3	117.4	81.6
Hydropower		100.4		25.0
<i>Total sector level costs</i>	158.0	257.6	187.4	174.4
Direct and indirect adaptation costs and residual damage (USD billion)				
Direct sector level costs	0.16	0.26	0.19	0.17
Indirect costs	2.30	2.55	0.60	0.77
Residual damage	1.52	3.03	0.43	0.81
Total (USD billion)	3.98	5.84	1.22	1.75

Source: Authors' calculations.

Note: We used four climate change scenarios: The Dry 1 and Wet 1 scenarios are the wettest and driest scenarios for the earth. The Dry 2 and Wet 2 scenarios define the maximum range of Climate Moisture Index (CMI) change for Ethiopia.

Policy implications:

- Investments in improved agricultural productivity and access to markets will enhance the resilience of agriculture, both to droughts and floods.
- It is important to consider whether building fewer, but more climate resilient roads, is preferable to building a larger number of roads to lower design standards that are likely to be more vulnerable to climate shocks.
- Accelerated diversification of income and employment sources away from climate-sensitive sectors such as agriculture is likely to become increasingly important under a more erratic climate.
- Strengthened hydropower development can both increase near-term economic growth and make the energy system more climate-resilient. Hydropower development will become increasingly more climate-sensitive; large hydro-projects should be subject to careful climate-robustness tests.
- Competition among users of water might become more acute, creating internal and transboundary conflicts.

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: ifpri@cgiar.org

ETHIOPIAN DEVELOPMENT RESEARCH INSTITUTE

<http://www.edri-eth.org>

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: info@edri-eth.org