



*Ethiopian Economics Association
(EEA)*

20th International Conference on the Ethiopian Economy

Conference Program

July 21 - 22, 2023

Ethiopian Economics Association (EEA)

Objectives

- *To inform decision making and policy formulation through generating scientific evidence;*
- *To strengthen capacity of members and other stakeholders through training and technical assistance;*
- *To create a platform for dialogue and public engagement through organizing policy forums, workshops, conferences, and other events.*
- *To contribute to scientific knowledge of economics through dissemination of findings on frontier economic issues.*

Vision:

"The EEA is envisioned to become a premier economics association in Africa by 2030."

Mission:

"The mission of EEA is to provide a platform for networking, access to information and learning; to contribute to a better understanding of the global, national and local economic issues; to inform and influence economic policymaking and investment decision; to offer training and foster the advancement of discipline of economics."

Values:

Professionalism, integrity, independence, quality, efficiency, inclusiveness, teamwork, accountability and transparency.

Moto:

Professionalism and Economic Thinking for Development!

20th International Conference on the Ethiopian Economy
July 21- 22, 2023

H.E Ato Mamo Mihretu, Governor of National Bank of Ethiopia



H.E Ato Mamo Mihretu is a member of the Macroeconomic Council, the body that steers economic policy and strategic decisions. He is an active member of the economic team that conceptualized, developed and implemented Ethiopia's economic reform program otherwise known as Home Grown Economic Reform.

Ato Mamo is a Board member of the Commercial Bank of Ethiopia (CBE) and chaired its transformation program.

In the early days of the reform, Ato Mamo served as a Senior Policy Advisor to the Prime Minister and was Ethiopia's Chief Trade Negotiator. Before joining the ranks of the Ethiopian Government in 2018, Ato Mamo brought immense experience from the World Bank Group where he was the Senior Project Manager in the Kenya Office overseeing operations in Ethiopia as well.

Ato Mamo has distinguished educational background. He obtained a Master's Degree in Leadership, Public Administration and Economic Development from the Kennedy School of Government at Harvard University – one of the eminent schools that EEA plans to emulate. He also holds a post-graduate degree in Trade and Investment from the Universities of Pretoria and University of Amsterdam. He was a gold medallist when he graduated from Addis Ababa University, School of Law.



H.E. Professor Berhanu Nega, Minister, Ministry of Education



Berhanu Nega (born 1st March 1958, is a father of two grown up children) is an Ethiopian politician and the current Minister of Education of Ethiopia.

He has Bachelor of Arts degree in economics from the State University of New York at New Paltz. He earned his Masters and Ph.D degrees from the New School for Social Research in New York City.

While studying to obtain his Ph.D in economics, he continued to give special attention to his homeland by helping organize the Horn of Africa annual conference. After graduation, he took his first teaching position as an Assistant Professor of Economics at Bucknell University, USA. In 1994, he returned to Ethiopia working in the private sector as well as teaching at AAU until he was exiled again to the US following his almost two years of imprisonment for his participation in the 2005 election representing the CUD. He returned to Bucknell in 2008 and became a full professor in 2015.

While a full-time faculty at Bucknell, Berhanu, always concerned with current developments in his homeland, also took time to help create a popular bi-monthly magazine, called Imbilta and served as one of the editors. He is the author of the popular book from prison entitled Yenetsanet Goh Siked (The Dawn of Freedom).

After he came back from the US he joined the Ethiopian Economic Association (EEA) in 1994 and became its president in 1996. While serving as President of the EEA he established, in 2000, the Ethiopian Economic Policy Research Institute (EEPRI), the first independent economic policy research outfit in the country, and became its first director until 2005.

In his rather busy life, professor Berhanu was a teacher, an entrepreneur, a researcher, a political activist and leader struggling for the establishment of a democratic political order in Ethiopia. He is currently Minister of Education of Ethiopia.



Dr. Alemayehu Seyoum Taffesse



Currently, he is a Senior Research Fellow at the International Food Policy Research Institute and leader of its Ethiopia Strategy Support Program. His most recent areas of research and publications include agricultural transformation in sub-Saharan Africa; social protection and resilience (including impact evaluation of large multi-year public programs); and individual psycho-social characteristics, behaviour, and well-being outcomes. Alemayehu is an Elected Fellow of the Econometric Society and the Ethiopian Academy of Sciences. He has also served as the 6th president of the Ethiopian Economics Association. Alemayehu has previously worked as an assistant professor of economics at Addis Ababa University, an economic affairs officer at the UNECA, and country director for Ethiopia at the International Growth Center. He holds a BA in Economics from Addis Ababa University, an M.Sc. in Quantitative Development Economics from the University of Warwick, and a D.Phil. in Economics from the University of Oxford.



Hon. Dr Seid Nuru Ali



- **Currently, he is:**

- an MP at the House of Peoples' Representatives of the Federal Democratic Republic of Ethiopia,
- Senior Economic Advisor at the Ministry of Planning and Development
- Adjunct Associate Professor of Economics at the Arbaminch University teaching Econometrics and development macroeconomics.
- He got his PhD in Economic Sciences from the University of Goettingen, Germany, and his Bachelor and Masters degrees in economics from Addis Ababa University.

- **He held public service positions:**

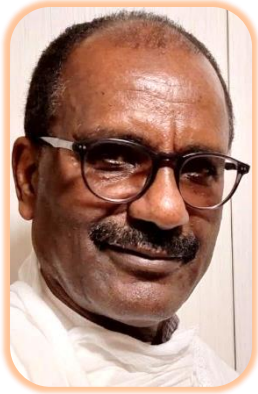
- He served as:
 - Coordinator of the Economic Cluster and Head of the Bureau of Urban Development, Housing and Construction of the Amhara National Regional State at the Rank of Deputy Head of Government from 2020 to 2021.
 - Lead Planner and Technical Advisor to the Commissioner of the Planning and Development Commission (now Ministry of Planning and Development) of the Federal Democratic Republic of Ethiopia from 2019 to 2020.
- He led the preparation of the Ten-Year Perspective Development Plan of Ethiopia, which is now being implemented.

- **He also has experience in research:**

- He was Senior Fellow and Head of the Macroeconomic Division of the Ethiopian Economic Policy Research Institute at the Ethiopian Economics Association from 2010 to 2019. He taught econometrics, macroeconomics, and public finance and policy at various universities in the country.
- He worked as senior researcher at the Center for Development Research (ZEF), University of Bonn from 2008 to 2010.
- Before he left for Germany to continue his PhD studies, he worked for various institutions including the National Parliament of Ethiopia, National Bank of Ethiopia



Dr. Gezahegn Kebede Gebrehana



Gezahegn is an Economist by training and holds a master's degree in development economics and a PhD in Public Policy and Administration, specializing in Conflict Management, Mediation, Peace and Terrorism Affairs.

He currently serves as the Country Director of Oxfam International in Ethiopia, a global organization known for effective global advocacy on rights issues in addition to humanitarian and development interventions across the globe.

His extensive (over 25 years) experience in senior leadership/Executive positions in Ethiopia and across Africa in public and non-profit sectors, bilateral and multilateral institutions has endowed him with the skills and wisdom for handling complex socio-economic phenomena and contribute to finding solutions to problems. For the government of Ethiopia, he served in senior positions in two ministries, (Ministry of Planning & Development and Ministry of Trade) and two state owned enterprises (Ethiopian Insurance Corporation and Agricultural Marketing Corporation). He is author of several papers related to food insecurity, civil society engagement and conflict and peace building issues.



Dr. Atnafu Gebremeskel



Atnafu Gebremeskel is PhD in Economics with specialization of Monetary Economics. His MSc is in International Economics at AAU with Monetary Economics and Econometrics at AERC Joint Facility in Electives Kenya, Nairobi. His research interest includes international trade, and monetary Economics. His early career is electrical engineer. His reading interest is in the areas of economic methodology, philosophy of sciences, and political Economy. He has taught different courses at AAU and other public and private universities both in undergraduate and post graduate programs. He also advises MS students and currently he is a co-advisor of three PhD students, two from Walaga University and one at AAU. He has served different institutions in deferent posts and capacities. Currently, he is a chairperson of the Department of Economics of the AAU. He is also

serving as an Executive Committee member of the EEA.



CONFERENCE SCHEDULE

DAY ONE: JULY 21, 2023

Time	Agenda Item	Responsibility	Chair /Rapporteur
8:30 – 9:00	Registration	EEA Staff	
9:00 – 9:15	Welcoming Speech	Dr. Amdissa Teshome, President of the EEA	Dr. Semeneh Bessie
9:15 – 9:30	Opening Statement	H.E Mr. Mamo Mihretu, Governor, National Bank of Ethiopia	
9:30 – 9:45	Recognition Ceremony	Guest of Honor	
9:45-10:00	Keynote Address	H.E Prof. Berhanu Nega Minister, Ministry of Education	Dr. Tewodros Makonnen
10:10 - 10:45	Panel Discussion: The Ethiopian Economic Policy Paradigm: Context, Relevance and Implementation	Panelists 1. Dr. Gezahegn Kebede 2. Dr. Atnafu G/Meskel 3. H.E. Dr. Seid Nuru 4. Dr. Alemayehu Seyoum Taffesse	<i>Rapporteur:</i> Dr. Abule Mehare
10:45 - 11:10	Discussion	Participants	
11:10 – 11:30	<i>Tea/Coffee Break</i>	<i>Organizing Committee</i>	
11:30 – 12:00	Multidimensional Development Index (MDI): Benchmarking with Global Achievements	Dr. Degye Goshu	<i>Chairperson:</i> Dr. Tadele Ferede
12:00 – 12:30	Discussion	Participants	<i>Rapporteur:</i> Dr. Adem Feto
12:30 – 14:00	<i>Lunch Break</i>	<i>Organizing Committee</i>	

DAY ONE: JULY 21, 2023- AFTERNOON

Time	PARALLEL SESSIONS			
	<p><i>Conference Room 1</i></p> <p>Regional Research (Co-organized with Oromia PDC and UNICEF)</p> <p><i>Chairperson:</i> Dr. Lemma Guddisa <i>Rapporteur:</i> Dr. Kassie Dessie</p>	<p><i>Conference Room 2 (4-02)</i></p> <p>Development and Industry (Co-organized with UNECA)</p> <p><i>Chairperson:</i> Dr. Addis Kassahun <i>Rapporteur:</i> Mr. Lemma Urga</p>	<p><i>Conference Room 3 (4-05)</i></p> <p>Gender and Development</p> <p><i>Chairperson:</i> Mrs. Sinidu Abebe <i>Rapporteur:</i> Dr. Sisay Debebe</p>	<p><i>Conference Room 4 (4-04)</i></p> <p>Development and Industry</p> <p><i>Chairperson:</i> Dr. Hiwot Mesfin <i>Rapporteur:</i> Mr. Michael Mamo</p>
14:00 - 14:15	<p>Dr. Adem Feto and Dr. Alemu Lambamo: Human Development Index for Oromia Region</p>	<p>Dr. Nadia S. Ouedraogo: A GIS approach to electrification planning in Cameroon</p>	<p>Mr. Takele Abdisa, Dr. Abule M. and Dr. Mekonnen B.: Gender Productivity Gap in Ethiopia</p>	<p>Mr. Tekilu Tadesse: Centrality Measures for Regional Economic Integration of Ethiopia in the 21st Century</p>
14:15 - 14:30	<p>Dr. Abebe Ambachew. and Dr. Abule Mehare: Saving and Investment Dynamics in Oromia Region, Ethiopia</p>	<p>Dr. Jean-Marc M. Kilolo, Martin Cameron; Antonio Pedro; Jean-Luc N. Mastaki: Economic Diversification in Cameroon: A Trade–DSM Analysis</p>	<p>Dr. Tsega G/Kerstos: Trends in Inter-Industry Wage Differentials and Gender Wage Gaps in Urban Ethiopia, 2003 - 2018</p>	<p>Dr. Adugna Lemi: Drain or Gain? The African Diaspora in the U.S since the 1990s</p>

...DAY ONE AFTERNOON CONTINUED

	Conference Room 1 Regional Research (Co-organized with Oromia PDC and UNICEF) <i>Chairperson:</i> Dr. Lemma Guddisa <i>Rapporteur:</i> Dr. Kassie Dessie	Conference Room 2 (4-02) Development and Industry <i>Chairperson:</i> Dr. Addis Kassahun <i>Rapporteur:</i> Mr. Lemma Urga	Conference Room 3 (4-05) Gender and Development <i>Chairperson:</i> Mrs. Sinidu Abebe <i>Rapporteur:</i> Dr. Sisay Debebe	Conference Room 4 (4-04) Development and Industry <i>Chairperson:</i> Dr. Hiwot Mesfin <i>Rapporteur:</i> Mr. Michael Mamo
14:30 - 14:45	Dr Semeneh Bessie , Dr. Fasil Eshetu, and Dr. Lamessa T: Rural Outmigration in Oromia: Tends, Causes and Implications	Bartholomew Armah; Dr. Oyebanke Abejirin ; Atkeyelsh Persson; Freida M’Cormack; Citra Kumala & Gezehagn Gutema: Digitizing National Planning Frameworks for the Coherent Implementation of Global and Continental Commitments	Ms. Estehiwot Semereab: Gender-based Income Inequality and its Determinant in Informal Sectors	Mrs. Tigist Zelalem: Economic Growth in Africa and East Asian Countries: A Panel Causality Analysis
14:45 - 15:00	Dr. Surafel Melak , Belaynehw B., Dr. Kassie D., and Dr. Yismaw A.: Fiscal Performance and Domestic Revenue Mobilization in Amhara Region	UNECA	Mr. Abdrohman Ebrahim and Dr. Degye G.: Gender Finance Gap and Women Economic Empowerment in Ethiopia	Dr. Mohammed Adem: The nexus of external debt and governance in Eastern African nations: A cross country analysis
15:00 - 15:30	Discussion	Discussion	Discussion	Discussion
15:30 – 16:00	Tea/Coffee Break	Organizing Committee		

...DAY ONE AFTERNOON CONTINUED

PARALLEL SESSIONS			
	<i>Conference Room 1</i>	<i>Conference Room 2 (4-02)</i>	<i>Conference Room 3 (4-05)</i>
	<p>Macroeconomy</p> <p><i>Chairperson:</i> Dr. Tsega G/Kerstos</p> <p><i>Rapporteur:</i> Ms. Wogayew Abel</p>	<p>Gender and Economic Empowerment</p> <p><i>Chairperson:</i> Dr. Gezahen Ayele</p> <p><i>Rapporteur:</i> Dr. Alemu Lambamo</p>	<p>Agriculture</p> <p><i>Chairperson:</i> Dr. Beyene Tadesse</p> <p><i>Rapporteur:</i> Dr. Lamessa Tariku</p>
16:00 - 16:15	<p>Dr. Lamessa Tariku: Regional Budget and Expenditure Analysis: Oromia, Amhara and SNNP Regions</p>	<p>Mr. Mebtu Mengesha and Dr. Adem F: Decomposing Gender Gap in Employment and Earnings: Do Urban and Rural Labor Markets in Ethiopia Behave Differently?</p>	<p>Mr. Aklilu Nigussie, Mesay Yami and Dr. Lema Zemedu: Determination of input-output coefficients for <i>Tef</i> under Smallholders production System in Ethiopia: Case of high potential districts</p>
16:15 – 16:30	<p>Dr. Arega Shumetie: Regional Budget and Expenditure Analysis: Oromia, Amhara and SNNP Regions</p>	<p>Mr. James Warner, Mr. Yalew Mekonnen, and Yetimwork Habte: The digital divide in rural Ethiopia: Determinants and implications of sex-disaggregated mobile phone ownership and use</p>	<p>Dr. Sisay Debebe, Dr. Tadesse Kuma, Endale Gebre: Agricultural transformation in Ethiopia: progress, challenges, and policy options</p>
16:30 – 16:45	<p>Mr. Mustefa Bati Geda: Determinants of Inflation in Ethiopia: An autoregressive distributed lag (ARDL) approach</p>	<p>Mr. Dersolegn Mekonen Geleta: Status of Households' Food Insecurity and the Responses to Shocks: Evidence from Bahir Dar and Gondar Cities of the Amhara Region, Ethiopia</p>	<p>Dr. Urgaia Rissa Worku: The Contribution of Agricultural sector to Economic Growth in Ethiopia</p>
16:45-17:15	Discussion	Discussion	Discussion

DAY TWO: JULY 22, 2023, MORNING

PLENARY SESSION, Conference Room 1			
Time	Agenda Item	Presenter	Chairperson /Rapporteur
9:00 – 9:50	Ethiopia Socioeconomic Panel Survey – Data and Key Findings	Dr. Beker Shale, Dr. Alemayehu Ambel, Mr. Asmelash Haile Tsegay, Mr. Manex Bule Yonis	<i>Chairperson:</i> Dr. Hailu Elias
9:50 – 10:10	Shining a brighter light on the reach and impact of agricultural innovations in Ethiopia: evidence from the Ethiopian Socioeconomic Panel Survey	Dr. Karen Macours Paris School of Economics	<i>Rapporteur:</i> Mr. Demirew Getachew
10:10 – 10:25	Socializing Global Public Investment (GPI) in Ethiopia	Mrs. Martha Getachew	
10:25 – 10:55	Discussion	Participants	
10:55 – 11: 20	Tea/Coffee Break	Organizing Committee	
PLENARY SESSION, Conference Room 1 (Co-organized with IGC)			
11:20 – 11:35	Wage Information and Applicant Selection	Marc Witte , Maria Balgova, Lukas Hensel and Tsegay Tekleselassie	<i>Chairperson:</i> Dr. Getenet Alemu
11:35 – 11:50	Skill Mismatch in the Ethiopian Labor Market	Marc Witte , Lukas Hensel, Tsegay Tekleselassie	
11:50 – 12:05	Migration in Ethiopia	Christian Meyer, Morgan Hardy, Anne Krahn	<i>Rapporteur:</i> Mr. Abdrohman Ebrahim
12:05 – 12:30	Discussion	Participants	
12:30 – 14:00	Lunch	Organizing Committee	

DAY TWO: JULY 22, 2023, *AFTERNOON*

	<i>Conference Room 1</i> Macroeconomy and Energy <i>Chairperson:</i> Dr. Atnafu G/Meskel <i>Rapporteur:</i> Dr. Arega Shumetie	<i>Conference Room 2 (4-02)</i> Finance and Banking <i>Chairperson:</i> Dr. Surafel Melak <i>Rapporteur:</i> Dr. Oumer Nuru	<i>Conference Room 3 (4-05)</i> Gender and Development <i>Chairperson:</i> Mrs. Zenash Kefale <i>Rapporteur:</i> Dr. Abebe Ambachew
14:00 – 14:15	Dr. Oumer Berisso Metaksa: Determinants of Rural-Urban Migrants’ Employment Choice in Urban Labor Market: Study from selected cities in central Oromia, Ethiopia.	Mr. Abreham Gebeyehu: Analyzing Bank Stability in Ethiopia: Panel Data Evidenced over the Period 2000/01 to 2021/22	Mrs. Zenaye Degefu: An Empirical Analysis of Food Poverty in Urban Ethiopia
14:15 – 14:30	Mr. Mulugeta Bekele, Prof. Maria Sassi and Dr. Kedir Jamal: The Dynamic Linkage between Renewable Energy Consumption and Environmental Sustainability in SSA Countries	Dr. Dereje Regasa and David Fielding: Banking Competition and Financial Inclusion: Evidence from Ethiopia	Mr. Tazeb Bisset Dessaegn: Causes of Informal Sectors: Case of Women street vendors in Dire Dawa City, Ethiopia
14:30 – 14:45	Mrs. Tiruwork Arega and Dawit K. Mekonnen: Fuel and appliance adoption in Ethiopia: Heterogeneities and prioritization	Dr. Mekonnen Bekele: Smallholders’ Crop yield and adaptation to climate change in the mixed farming system of Ethiopia	Dr. Alemayehu Ambel and Dr. Firew Bekele Woldeyes Does unequal tax burden contribute to women-owned businesses leaving the tax net?
14:45 - 15:15	Discussion	Discussion	Discussion
15:15 – 15:30	Summary of the Conference Proceedings	Prof. Mengistu Ketema, CEO of the EEA	
15:30 – 15:40	Closing Session	Dr. Amdissa Teshome, President of the EEA	
15:40 -	Cocktail Reception	Organizing Committee	

ABSTRACTS OF THE PAPERS

Multidimensional Development Index (MDI)

Benchmarking with Global Achievements

Degye Goshu, Tadele Ferede, Abule Mehare, Adem Feto

Development is a multidimensional undertaking which can be addressed by multiple objectives demanding comprehensive and simultaneous investigation of achievements. Given the multiple dimensions and indicators of development, however, it has increasingly become complicated to gauge the extent of development of nations using a single composite indicator. The quest for a unique measure addressing the full picture of development still remains to be the primary challenge of professionals and practitioners. We develop a new Multidimensional Development Index (MDI) with two dimensions and 14 pillars identified to be the most important measures of multidimensional development in 194 countries/economies around the world. The MDI is intended to measure several aspects of development including economic, social, governance, and political dimensions. It assesses and ranks the state of multidimensional development as well as development gains, losses, and gaps experienced by countries in socioeconomic development and governance. A total of 179 countries/economies are ranked with their multidimensional development, socioeconomic development and governance. Denmark (73.9%), Switzerland (73.4%), and Finland (73.3%) are the top three countries with high multidimensional development status. The bottom three countries with very low multidimensional development are Central African Republic (11.1%), Democratic Republic of the Congo (12.6%), and Afghanistan (12.8%). The world average performance in 2021 is 41.6% in multidimensional development, 43.6% in socioeconomic development, and 39.6% in governance. The most important pillars causing huge development losses around the world are state fragility (-15.3%) and gender inequality (-14.3%). Socioeconomic development and governance are found to be strongly interdependent verifying the need to ensure complementarity of policies and their development outcomes. The MDI measures of development are strongly aligned with the 17 SDGs of the United Nations explaining over 89 percent of the overall SDG achievements. The largest development gaps are observed in SSA, followed by Latin America and the Caribbean, and Arab States (39.0%). The results also show that multidimensional development of nations is significantly determined by other exogenous factors such as land area, availability of seaports, military strength, ethnic diversity, and religion. To realize their multiple development goals, nations should harmonize socioeconomic and governance policies, ensure state stability and gender equality, and effectively manage adverse effects of exogenous factors of development.

Human Development Index Report for the Oromia Region, Ethiopia: 2008 (2015/16) - 2013 (2020/21): Treats and Optimisms of the 2030 Target to Become Low-Middle Income Regional State

Dr. Adem Feto and Dr. Alemu Lambamo

Abstract

Against backdrop of traditional measures, a new approach to development that focus on people and their opportunities rather than economic growth alone was emerged. A National Human Development Index (HDI) (composite index of income, education and health) inevitably ignores sub-national differences and the commencement of HDI become the first multi-dimensional index in the Oromia region. The goal and worth of this assessment are to develop and compute the HDI and the Gender Development Index (GDI); to introduce the indices as a new tool for measuring the socioeconomic development of region; and to strengthen regional public sector capacity in HDI development, computation, data collection, and analysis. Primary and secondary data were collected from multiple national and regional sources. The data was analyzed using various statistical techniques.

As of 2020/21 Oromia region's HDI value is 0.545 which put the region in the upper margin of lower human development category. Between 2015/16 and 2020/21, Oromia region's HDI value improved by 10%. The life expectancy (34.1%) and EYS (31.6%) indicators progress, on average, are higher than mean year of schooling (13.1%) and income indicator (21.2%). In 2020/21 the GDI value was 0.885. An overall 11.5% disparities are observed between male and female over the 6 years period entirely. Sustaining the HDI and GDI achievements so far and targeting the high development category of human development are required. Also, boost women role in policy formulation and implementation and economic activities are recommended.

The region has achieved sustained economic growth in recent years with Real Gross Domestic Product (GDP) growth at or above 7% since 2012. However, the dynamics of economic growth in the region is volatile where there has been co-movement of GDP and agricultural output. Reduce dependence of the regional economy on rain and maintain balanced sectoral growth is required. Despite notable achievements in access to education, challenges in quality of education and gap in Net Intake Rate (NIR) remain. Gross enrollment rate in upper primary and secondary schools requires alteration. Pupil to section ratio and student to faculty ratio are still low in the region which triggers hiring of qualified and competent professionals mainly at primary education. Creating conducive environment for participation of private sectors could potentially reduce NIR-gap. Functionalities of school facilities were lower than corresponding availability particularly in secondary schools which necessitates the establishment of a sustaining-system. The region's performance of 80% basic health service coverage is remarkable. However, access to improved sanitation facilities is limited to 58% (on average) of households, necessitates improvements. Providing incentive packages for health workers and creating conducive working environment are among the proposed actions to advance productivity and commitment and to improve the number of health worker density. Greater effort is also required to ensure sustained increases in inflation adjusted education and health expenditures.

Keywords: Oromia, Education, Health, Income, HDI, GDI

Complex Network Analysis for Regional Economic Integration of Ethiopia in the 21st Century

Tekilu Tadesse Choramo^{1*}, Jemal Abafita², Yerali Gadinca³ and Luis E R Rocha^{1,4}

Abstract

The complex nature of the world economy makes it more difficult to understand interdependent patterns of bilateral relationships between countries in trade, investment, and migration. An empirical study on regional integration through trade from a holistic perspective using complex network analysis has rarely been explored to capture meaningful insights into economic interdependencies among the countries. This study investigates the regional economic integration of Ethiopia in Africa using complex network analysis. The study uses centrality measures algorithms such as betweenness, PageRank, and random walk centrality to examine the evolution of a country's position in the African trade network, whereas k -core and clustering coefficients are used to evaluate the tight connectivity level of a country as a measure of economic integration, as well as to measure and map the temporal evolution of Ethiopia relative to their key trading partners. The System GMM (Generalized Method of Moments) model is applied to analyze the impact of macroeconomic indicators on economic integration measured by network metrics. Network analysis shows that countries have different roles and occupy different central positions with growing intra-regional trade, while Ethiopia has moved away from being in the peripheral (i.e., low centrality indicator) and has become an increasingly central position within the regional trade network (high centrality). South Africa, Egypt, and Kenya are the most important trading partners and absolute core nodes in influencing the entire trade network. The network displays core-periphery properties, with notable power asymmetries between the countries reflecting an uneven trade distribution in Africa. The econometric model reveals that the country's economic development, institutional quality, trade openness, and human capital significantly affect network centrality, while the global financial crisis and overlapping membership have a much more negative impact on the African trade network metrics (k -core and Random-Walk centrality). We found that the impact of macroeconomic variables is heterogeneous across different measures of network centrality, and indicators in African trade. The finding suggests that further liberalization of trade and improving institutions, together with policies boosting domestic and regional trade, are helpful for broader economic integration in Africa.

Keywords: Africa Trade, Complex Network, Economic Integration, Centrality measures, Dynamic panel, Ethiopia

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Analysis of Gender Productivity Gap: Evidence from Ethiopia

Takele Abdisa, Abule Mehare and Mekonnen Bekele

Abstract

Agriculture is the backbone of the Ethiopian economy and, however, empirical evidence shows that women who make up more than half of the agricultural labor force contribute less to agricultural productivity. This study investigated the gender differences in agricultural productivity and highlighted the main causes of the productivity gaps between male headed households and female headed households. For this study, the researcher utilized the baseline and midline panel data of households that were collected by PSI to evaluate the AGP II program. Thus, 3474 households were used for the analysis, of which 69% (2404)-were headed households and 31% (1070) were identified as female-headed households. Result from the DID Method of impact evaluation show that female headed households less productive by 0.037 birr and 2.05 quintal per hectare when measured in terms of value in birr and quintal per hectare compared to male headed household. Additionally, the result from pooled and random effect Tobit model show that soil fertility, sex of the household head, slope of the land, total livestock holding in TLU, extension contact, use of fertilizer, and plantation method are among the determinants of gender gap in agricultural productivity when measured in terms of area and value. Furthermore, result from the Oaxaca decomposition show that a gender performance (productivity) difference between male and female-headed households of roughly 11.2% when measured by value and 5% when measured by area-weighted formula. Lastly, the results from the RIF Oaxaca decomposition show that sex, soil fertility, the slope of the land, livestock ownership, extension contact, credit use, and machinery use are the factors accounting for the difference in productivity when measured in terms of value and area. The main finding of the study is that endowment effects were less likely to have a significant impact on the productivity gap than the structural effect did. Differences in the unexplained characteristics of men and women may also contribute to the considerable productivity gap between male-headed households and female-headed households. Therefore, working on women's empowerment to improve their structural disadvantages through various training programs that favor women or gender mainstreamed extension training programs for lowering gender productivity differentials are the possible policy option.

Keywords: Gender, Productivity, Gap, Impact, Decomposition

Saving and Investment Dynamics in Oromia Region, Ethiopia

Abebe Ambachew Ayana¹ and Abule Mehari²

Abstract

Saving and investment are considered as a backbone of an economy. It has been argued that without sufficient savings and investment, economic growth and development will undoubtedly be weakened. This study was instigated to scrutinize the states of saving and investment as well as their association in Oromia region. To this end, a time series data from 1999/00 to 2021/22 on regional aggregates and other variables were compiled from various sources for the econometric analysis. Quantitative data was also collected from relevant stakeholders using 43 key informant interviews (KII) and 7 focus groups discussions (FGD).

The study revealed that in 2022 the level of gross domestic saving in Oromia is 22.13% of its GDP which is higher than the national average (15.3%) and the regional gross domestic investment (13.5%) in 2020/21. However, the regional investment has been consistently lower than the national average. The ARDL-Bounds Cointegration Test, revealed that relationship between saving and investment in Oromia is weak, implying that there is capital mobility. Though banks loan are the main source of investment this study demonstrated that regional disparity in loan disbursement is prevalent and large amount of resources mobilized locally are not channeled to the private sector. As far as the profile of investment projects is concerned, Oromia has licensed about 21,000 domestic and foreign investors since 1992; of which near to 43% of them are operational, with a better conversion rate for FDI projects than that of the domestic ones. Taking the idle capacities of operational projects into account makes the full capacity utilization-adjusted operation rate just 27%. Macroeconomic instability, political unrest, infrastructural problem like electricity, foreign currency shortage, corruption, atrocious bureaucracy, and lack of entrepreneurial mind set by the investors are among the major reasons behind this sluggish performance. On the other hand, the renewed commitment of the government to solve regulatory bottlenecks, investment incentives, locational advantages of the region, and its resourcefulness has a potential to make Oromia an investable region.

Key words

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Trends in Inter-Industry Wage Differentials and Gender Wage Gaps in Urban Ethiopia, 2003 - 2018

Tsega Gebrekristos Mezgebo¹

Abstract

This study provides new evidence on the interaction of inter-industry wage differentials and gender wage gap in Ethiopia covering 2003 to 2018. Applying the correct standard errors, on average, estimates show that the industry wage structure is different for women and men across time and the dispersion of interindustry wage differentials is higher for male than female workers. The highest gender wage gap is observed in the extraterritorial industry followed by the transport and accommodation industry. Further, the results indicate that the gender wage gap has sharply increased from 22.5% in 2003 to 32% in 2018. Of the overall gender wage gap, about 29% is explained by differences in inter-industry wage premium between women and men workers. The industry effect on gender pay gap has increase from 0% in 2003 to 22.3% in 2018. The widening trend of gender wage gap and the increasing industry effect on gender pay is observed when Ethiopia has achieved strong economic growth. This has important implications for policy makers in implementing pay equity reforms, where the implicit assumption is that affirmative actions will stimulate women workers transit to higher paying jobs.

Key words: inequality, inter-industry wage differential, gender wage gap, urban, Ethiopia

JEL-classification: J16, J21, J31, J62

The nexus of external debt and governance in Eastern African nations: A cross country analysis

Mohammed Adem

Abstract

The nexus of external debt, governance, and economic growth remains a controversial issue in both the academic and policy-making fields. This study empirically investigates the links among external public debt and governance in Ethiopia, Kenya, and Uganda from the year 2000 to 2020. The study employed the autoregressive distributed lag (ARDL) co-integration modeling approach to achieve the stated objective. The results reveal a long-run and short-run relationship among the variables. Effective governance has a long-term beneficial effect while, in the short run, it has a negative impact on the external public debt. Economic growth has a positive short-term impact and a negative long-term impact, much like how public debt is influenced by it. Governance is essential for reducing resource embezzlement and improving the effectiveness of resource distribution in order to minimize the long-term constraints on a government that is dependent on foreign debt. In a similar vein, economic growth may limit the accumulation of foreign debt in two ways: first, it boosts revenues, and second, a higher GDP might aid in lowering debt-to-GDP ratios. As a result, while maintaining economic growth trends, emerging-country governments should prioritize improving their governance structure and effectiveness.

Keywords: Debt, governance, economic growth, cointegration, ARDL

Rural Out-Migration in Oromia Regional State: Trends, Causes, and Implications

Fasil Eshetu¹; Semeneh Bessie²; and Lamessa T. Abdisa³

Abstract

Despite the fact that many previous studies have focused on the determinants and impact of migration on migrant-receiving urban areas, research on the impact of rural-urban and international migration on the welfare and agricultural production of migrant-sending rural households is limited. Using cross-sectional data drawn from a random sample of 384 households, this study aimed to investigate the trend, determinants, and quantify the impact of rural-urban and international migration on the welfare and crop productivity of rural households in the Oromia region. The results showed that, despite high urban unemployment rate, the proportion of migrants as a percentage of urban population increased from 17.2 to 49.2 percent in the Oromia region between 1999 and 2021. Similarly, Oromia region is the primary source of international migrants (34.6%) in the country. Limited access to land, land fragmentation, a large family size, a lower number of livestock, and limited access to irrigation are the major driving factors of rural out-migration in the study areas. Rural poverty and food insecurity are also the driving forces of rural out-migration in Oromia region. The conditional average treatment effects on treated (ATT) of annual food expenditure and kilocalorie per AE per day for households with international migrants are Birr 1519.87 and 323.35 respectively, and significant at 1 percent. Besides, the ATT from the multinomial endogenous switching regression showed that both rural-urban and international migrations significantly increase wheat output per hectare by 341.28 and 707.21 kilograms, and teff output per hectare by 502.05 and 257.04 kilograms respectively. Hence, promoting access to agricultural assets such as land, credit, livestock, and small-scale irrigation by rural youth will increase agricultural productivity, and reduce rural out-migration in Oromia region. Attracting rural youth to agriculture through commercialization and mechanization, motivating them to stay in their home areas, will help to reduce the current wave of rural out-migration in Oromia region.

Keywords: Migration, Push & Pull Factors, Switching Models, Welfare, Productivity, Oromia

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Sources of Economic Growth in Africa and East Asian Countries: A Panel Causality Analysis

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Abstract

This paper examines the sources of growth in selected African and East Asian countries, using the growth accounting framework on data from 1960 to 2016. We demonstrated the causal association between labor quantity, Total Capital Service (TCS), Total Factor Productivity (TFP), and economic growth. The lower growth in Gross Domestic Product (GDP) during the 1980s and 1990s in Africa matches with the slower growth in TCS. The TFP growth doesn't explain the economic growth difference among countries; it contributed negatively to GDP growth in the two regions until the 2000s. However, in African countries, its positive contribution returned to negative in the 2010s, while Asian countries continued driving a positive contribution up to 28.9% from TFP growth in the 2010s. In all East Asian countries, TCS contributed more than half of their growth in GDP, which makes their growth capital-driven, while African countries growth in GDP is more dependent on labor quantity growth. In Africa, we discovered bi-directional causality between labor quantity and GDP; TCS and GDP, as well as unidirectional causality running from GDP to TFP. In East Asia, we only found a one-way causality running from GDP to TCS and TFP.

Keywords: Labor Quality, Labor Quantity, Total Capital Service, TFP, Economic growth, Africa, East Asia, Panel Causality

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The Contribution of Agricultural sector to Economic Growth in Ethiopia

Urgaia R. Worku¹

Abstract

This paper examines the contribution of agricultural sector to economic growth in Ethiopia. In this study, we use linear symmetric autoregressive distributed lags (ARDL) and non-linear ARDL models for the data over the period 1981-2021 obtained from the United Nation aggregate database. The empirical findings of asymmetric nonlinear ARDL model as robust results reveal, a unidirectional causality running from a negative downward movement of the agriculture sector to real GDP per capita. Thus we suggest the evidence obtained through asymmetric models seems to be superior to symmetric models, ensuring more efficiency for the policymakers to achieve sustainable economic growth; agriculture must be a leading sector. As agriculture becomes a leading sector, we believe that the bottleneck challenges of an educated brain-drain from the country to the developed world for searching better jobs and the engagement of unskilled labour in agricultural sector will get solutions in the long-run.

Key words: Economic growth, ARDL and NARDL analysis

JEL Classification: C10, C32, O40, E52, E62, F62

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Fiscal Performance and Domestic Revenue Mobilization in Amhara Region

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Abstract

The fiscal performance of Amhara region was assessed using the Fiscal Performance Index (FPI), which is a multidimensional index, constructed using three dimensions with six sub-dimensions (fiscal indicators). The administration and collection capacity of the revenue bureau of the region was assessed using a multidimensional approach which comprises five domains and 10 indicators. The study has also analyzed and forecasted revenue and expenditure trends of Amhara region using triple exponential smoothing technique.

It was found that a high deficit, a low improvement in the revenue efficiency, and low expenditure quality indices contributing for the low fiscal performance of Amhara region. In addition, low performance in the tax and non-tax revenue indices and the developmental revenue and capital expenditure index were the principal sub-dimensions that contributed to the low fiscal performance of the region. Non-tax revenue collection performance of the region is better than the tax revenue collection. Tax administrator is weak in four out of five domains and in nine out of ten indicators. The revenue bureau performs well in only one domain: the “timely filing of tax declarations” and one indicator that is “on-time filing rate”. The main priority of the revenue bureau has been to fight tax evasion and this initiative was successful in reducing the tax gap. In addition, the revenue bureau has a dedication to advance technologies including electronic payment. The growing trend of the regional expenditure that is faster than the internal revenue generation has caused by divergence between the development outcomes that need more resource mobilization. This makes it mandatory to reform the tax collection and administration system of the region to identify new and innovative ways of raising additional internal revenue. Thus, the regional revenue bureau should undertake a reform aimed to narrow the regional revenue and expenditure gap. Increasing revenue collection, mainly tax revenue, and reducing the fiscal deficit by reducing less productive expenditures such as expenses for celebration are the areas of improvement needed to improve the fiscal performance of the region.

Key words: Fiscal Performance, revenue, expenditure, Amhara

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Regional Budget and Expenditure Analysis: Oromia, Amhara and SNNP Regions

Lamessa Tariku¹ and Arega Shumetic²

Abstract

Improved public investment requires not only the availability of government financial resources but its effective and efficient utilization in order to address the adequacy, equity, and sustainability of public investments on children. To improve investment in social sectors that are beneficial to children, it is important to assess the budget allocation and spending in key social sectors at sub-national levels. This report assessed budget and expenditure allocation patterns of three regional states of Ethiopia (Oromia, Amhara and SNNP regions) in key social sectors.

Though the aggregate public spending in the three regions has increased by more than three-fold, the increment in real terms is not significant as that of the nominal values. Significant proportion of the public spending was directed to the pro-poor sectors (education, health, water and energy, roads and agriculture and food security) with education receiving the highest share in all the regions considered. In terms of composition, the public expenditure was dominated by recurrent expenditure with capital budget continuously declining in the recent years. The high share of recurrent expenditure could be challenging for the regional governments to carry out capital investments such as construction of schools and lower tier health facilities which adversely affects service delivery. Thus, domestic resource mobilization within the regions should be given due attention to increase capital budget allocation for adequate capital investments required to improve service delivery. Efficiency and effectiveness of spending by the regional governments should also be given due attention to get higher return from public investments.

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Gender Finance Gap and Women Economic Empowerment in Ethiopia

Abdrohman Ebrahim Hanur¹ and Degye Goshu²

Abstract

This study has an objective of estimating the gender finance gap, the role of financial inclusion on women economic empowerment in Ethiopia. Using the World bank group publicly available data (Global FINDEX and Living Standard Measurement Surveys (LSMSs)), Financial Inclusion (FI) in Ethiopia does not exceed one third of the adult population. The gender finance gap is estimated about 16% in 2018. Education, income, and age are the main factors that explain the existence of gender finance gap in Ethiopia. The effect of Financial Inclusion on women labour is positive. It increases women's weekly labour supply in paid casual, temporary and non-agricultural works by 3.8 hrs per week. The impact of FI on asset-based index and expenditure show that if at least one an adult woman in the household is financially included, households' asset accumulation and expenditure on nondurable items increases. The Average Treatment Effects (ATE) of FI on monthly household's expenditure on non-food items is about 240 ETB for a household who has a least one financially included woman compared with a household with no financially included women. Therefore, policies that could increase women's ownership of bank account and utilization of financial institution could increase women empowerment in Ethiopia.

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Gender-based Income Inequality and its Determinant in Informal Sectors

Estehiwot Semereab¹ and Arega Shumetie²

Abstract

Using survey data from BAN-DRC, this study aims to examine the extent and determinants of gender income inequality in the informal sector. The study employed unconditional quantile model. Our results show that, gender income inequality is present at all percentiles, with a decrease at higher percentiles. The study also found that structural effects drive gender income inequality at middle and high-income earners. While endowment effect drives gender income inequality at lower and top income earners.

The UQR identifies several socioeconomic factors that increases the gender income gap, including tertiary education, operating a retail business, years of experience in the informal sector, taking out a loan, initial capital, hours of work, having formal registry, and having direct consumer. In contrast, The UQR found that literacy and working in temporary structured areas reduce the gender income gap. Finally, the research recommended the government and other concerned stockholders to work on giving equal chance for women and also reduce women discrimination.

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² PhD

The digital divide in rural Ethiopia: Determinants and implications of sex-disaggregated mobile phone ownership and use

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Abstract

Mobile phones are rapidly being adopted in less developed countries, with widely acknowledged commensurate socio-economic benefits, including United Nations SDGs advocating for increased ownership of mobile phones to promote women's empowerment. While overall mobile phone ownership is rising quickly in Ethiopia, it is lagging for rural women, particularly married rural women. Overall, we find that married men are approximately five times more likely to own a phone than their wives even though married women with phones are more active in agricultural decision making. This lack of female mobile phone ownership should be considered within the broader context of several recent Ethiopian digital initiatives, including mobile banking and mobile payments. These initiatives are likely to provide greater benefits to those individuals that own a mobile phone. By applying gender analysis to phone ownership, we believe that we can anticipate some potentially unexpected negative consequences for women created by these mobile phone initiatives. This paper outlines current rural sex-disaggregated phone ownership trends, determinants of phone ownership, and related impacts on intrahousehold decision making. We believe that by identifying these gender differences in mobile phone ownership, policymakers can better target their digital economy initiatives.

Fuel and appliance adoption in Ethiopia: Heterogeneities and prioritization

Tiruwork Arega¹ * and Dawit K. Mekonnen²

Abstract

The study investigated urban households' fuel choices and their prioritization on adoption of electric home appliances in Ethiopia using a nationwide panel data and random effects multinomial logit modeling. The principal cooking fuel for more than half (57%) of the urban dwellers is firewood and crop residuals. Charcoal's contribution to energy needs for cooking in urban areas is almost equal to that of electricity, at about 20 percent. Econometric results show that households' choices for cooking fuel were significantly associated with family compositions, educational attendance, types of cooking spaces, proximity to roads, and electric power outages. On the other hand, the adoption of electric stoves for injera making (mitad) is not significantly associated with household income and stove prices, compared to other home appliances like television. The result showed that middle-income households are more likely to adopt television sets than electric mitads. Having access to a metered electricity, presence of adult female members in the family, education, and cooking space play important roles in households' adoption decisions of electric mitad. Our study has policy implications in addressing the gaps in the adoption of electronic home appliances in urban areas.

Key words: electronic appliances, fuel choice, multinomial logit, urban areas, Ethiopia

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Agricultural Transformation in Ethiopia: Progress, Challenges, and Policy Options

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Abstract

Agriculture is an engine of Ethiopia's economy and crucial for meeting food security, poverty reduction, industrial development, and wealth creation. This study aims to examine the progress, and challenges of agricultural transformation in Ethiopia using secondary long-term data mixed collected from various official sources. Country-representative primary and secondary data were collected over the last 15 years for the consecutive three five-year national development policy plan periods. The data were analysed using descriptive and econometrics techniques. The result shows promising progress in overall agriculture growth performances since the mid-2000s resulting in direct and indirect impacts on the improvement of welfare of citizens. However, the growth has been constrained by several factors. Crop production takes the lion's share of the total value added to the agriculture sector, while the contribution from animal farming and hunting, forestry, and fishery has been minimal showing weak innovation, value addition, and diversification over the last periods. As a result, the overall performance of the agriculture sector was erratic, less predictable with declining margins of growth in some cases to sustain and boost economic growth and thereby bring desired structural changes to the overall economy. Fairly complex environmental, technical and institutional problems compound the recent decline in productivity growth, input supply volume and quality decline including cultivated land size, weak technological and extension support, market orientation and access, post-harvest losses, soil acidity, livestock feed and health services problems. Institutional issues such as weak coordination, synergy and accountability, weak technical leadership in development frontiers, and weak private sector roles have caused the set back. The agricultural system as a whole is unequipped with modern technologies, facilities and work-ethics to support the envisaged broad-based economic transformation of the Ethiopian economy. The study recommends an overall rise in public investment with paradigm shift in policy & proper implementation support, multi-sector partnerships and coordination, strengthening implementation capacity of institutions, raising technological capacity of institutions, and strengthening research and extension support in the upcoming years.

Key Words: *Agriculture transformation; Agriculture Performance; Challenges; policy issues, Ethiopia.*

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Decomposing Gender Gap in Employment and Earnings: Do Urban and Rural Labor Markets in Ethiopia Behave Differently?

Mebtu Mengesha¹ and Adem Feto²

Abstract

The development and individual welfare implications of gender issues such as gendered disparities in education, employment and pay have gained a global attention. Despite this effort, there are still persistent gender disparities in socio-economic and political participation and the respective outcomes. In light of this, this study is aimed to examine the factors behind gender disparities in earnings and labor market participation. To achieve this objective, we used the most recent nationally representative, containing both rural and urban statistics, labor force survey data of Ethiopia. We conducted our empirical investigation by using the linear Nueman-Oaxaca (the Post-Oaxaca-Blinder) for decomposition of gendered earnings differential. Whereas, to examine the gendered labor force participation gap, the non-linear Nueman-Oaxaca extended for Binary Probit model is used. The results of our decomposition exercises strongly suggested that though human capital variables such as tertiary education, training and skill have significantly explained the gender gap in earnings and labor market participation, there is still a pervasive discrimination against women in both rural and urban labor markets of Ethiopia, though the extent is severe in the former. Our study suggests that while policy instruments that improve public investment on women's human capital development are instrumental, awareness creation campaigns curving negative norms and traditions such as attaching domestic chores as sole responsibilities of women are also very crucial.

Key words: Earnings, Labor Force Participation, Gender Gap, Decomposition

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Status of Households' Food Insecurity and the Responses to Shocks: Empirical Evidence from Bahir Dar and Gondar Cities of the Amhara Region, Ethiopia

Dersolegn Mekonen¹

Abstract

Urban migration, unemployment, skyrocketing food prices, and alarmingly rising rental houses have become critical urban concerns in many Ethiopian cities. The study's main goal was to evaluate urban households' food insecurity and coping strategies in response to the shocks. A mixed methods research design comprised of quantitative and qualitative research approaches is used. Data were gathered through questionnaires, focus group discussions, and key informant interviews. For evaluating the collected data, descriptive and inferential statistics were used. Empirical food security metrics like dietary energy supply (DES), dietary diversity scores (DDS), and reduced coping strategy index (rCSI) were employed. According to the findings, 54% of households were food insecure, consuming less than 2,100 kcal/A.E/ day. Using 2,100 kcal as a baseline, 56.7 % of Bahir Dar and 52.7 % of Gondar city were food insecure. Approximately 64% of households had insufficient dietary diversity, consuming less than Four food groups, much below the FAO's recommendation. The most frequently employed coping strategies during food shocks were eating fewer meals, using less-preferred and low-quality foods, and skipping or restricting portions so children could eat. Among the variables, gender is the most significant determinant of urban food security. Accordingly, female-headed households are more likely to be food insecure than their male-headed counterparts. The findings confirmed that male-headed families comprise 62%, among which 52% are food secure, while among 38% of the sample female-headed households, 63% are food insecure. Therefore, immediate intervention in price stabilization, urban safety nets, construction of low-rental housing, and short-term training and initial capital could improve impoverished urban households.

Keywords: Reduced Coping Strategic Index, Dietary Energy Supply, Dietary Diversity Score, Urban food in/security.

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Determination of input-output coefficients for *Tef* under Smallholders production System in Ethiopia: - Case of high potential districts

Aklilu Nigussie^{1*}; Mesay Yami²; Lema Zemedu¹

Abstract

Cost Benefit analysis was often used to assess the profitability and estimate sensitivity of the production system. In this study we investigate costs and benefits associated with smallholder production system for high potential district of tef. Among cereals, Tef (*Eragrostis tef*) is indigenous to Ethiopia in its origin and it is an important crop in Ethiopian smallholder production system because of its dual function both as a staple crop that improves food security and as an income-generating crop. The objective of this study was to investigate the association of production cost and profitability of output and its break-even yield, break-even sales price, margin of safety and efficiency ratio at stallholder's production system. This study applied Partial Budget Analysis (PBA) framework for the economic analysis for their benefit returns. The analysis was based on survey data from Ada'a, and Minjar-Shenkora with a total household sample of 260 potential tef producers with multiple stage sample selection method was implemented and at last simple random for household selection was used. Results show that total man-day for land preparation was found 9.16 while the total cost for labor was 1,482.14 Ethiopian birr (53.6 USD) with exchange rate of US\$ 1 = ETB 27.50, the labor cost for different levels of ploughing varies accordingly with seasonality; while the total cost of oxen rent per hectare was found 3,540.56 ETB (128.75 USD). The total labor cost for pesticide application per ha was 1557.12 ETB (56.62 USD); yet the frequency of application varies depend on infestation. The average weeding frequency was two times in the season of production while the average man-day and average total cost was 6.16 and 1,283.93 ETB (46.69 USD) per ha respectively. The total average grain production was 1949.44 kg while the straw was 8883.39 kg while average district market unit price was found 20 and 2.75 birr per kg respectively. With sensitivity analysis of 3 cases with the first one having estimating the price shock in input and output of 10% Δ increase; the TVC shifts from initial 36,386.1 birr to 40,024.71 while the TRV and Net return was found 69,804.35 and 29,779.64 birr respectively. In this shock BCR was found 1.74, BEY was 1,819.31 kg, BEP was 20.53 birr/kg to attain the break-even-point. Labor productivity was found to be 101.16 per man-day in the production process; while efficiency ratio was found to be 0.57 birr to generate 1-birr revenue in small scale tef production potential area of Ethiopia; yet the optimal ratio is 0.5 birr. The margin of safety was found 130.13kg that a tef producer attains before loss or the marginal of safety in percent was found to be 6.68% for potential area tef producer farmer per ha in Ethiopia.

Key words: Tef; Total variable cost; Break-even yield; labor productivity; Efficiency ratio; Margin of safety; Rate of return

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Economic Diversification in Cameroon: A Trade–DSM Analysis*

Jean-Marc M. Kilolo; Martin Cameron; Antonio Pedro; Jean-Luc N. Mastaki

Abstract

Despite its rich endowments of natural resources, the Cameroonian economy remains undiversified and vulnerable to exogenous shocks as an exporter of unprocessed primary products. With the ratification of the African Continental Free Trade Area (AfCFTA), the Cameroonian government intends to follow an export-led industrialization strategy. The country ambitions, through its PDI (industrial masterplan), to become the “factory of the new industrial Africa”, starting with the “ECCAS + Nigeria” zone. Examining this industrial ambition through the TRADE-DSM approach, we find that Cameroon has the largest export potential for Food related products and products not prioritized in the PDI, while Cotton –Textile – Manufacturing and Hydrocarbons and Petrochemicals shows the least potential. Besides, within the “ECCAS + Nigeria” zone, the Nigerian market has the largest potential for Cameroonian products, while DRC has the lowest, despite its large population of over 80 million people. In other words, due to lack of infrastructures and logistics, small countries such as Congo, Gabon, Chad, Equatorial Guinea, Sao Tome and Principe appear to be better market for Cameroon than DRC. This suggests that due to poor infrastructures, some geographically close markets, such as DRC, are, in real terms, distant from a commercial point of view.

Presenter: *Jean-Marc M. Kilolo, PhD; Economist; Innovative Finance and Capital Markets Section (IFCMS); Private Sector Development and Finance Division (PSDFD); United Nations Economic Commission for Africa (ECA)*

Smallholders' yield and adaptation to climate change of mixed farming system in Ethiopia

Mekonnen B. Wakeyo¹ and Hailu Elias²

Abstract

Adverse weather forces smallholders in Ethiopia to increasingly shift to crop-livestock farming system. The shift is practiced in nearly 90 percent smallholder households. However, unless carefully dealt with, the move could end up in lower crop-yield because of the potential disincentive of the income from livestock. Thus, there is a compelling reason to investigate whether yield declines with livestock size, the yield differences and the adoption of mixed farming. For the investigations, we used the Resilience & Climate Change data collected in 2021 at plot level from 2000 households living in six regions of Ethiopia. Descriptive analysis and econometric models of method of moments and logit are applied for analysis. The findings indicated: (1) consistent with the expectation, in both absolute and per capita terms households beyond the second livestock quartile, who own 60% of the cropland, produce lower average yields. (2) Major yield factors do not as such vary by aggregated and livestock quartiles. In at least three of the estimations, being male, high-school education, proportion of high-value crops, use of thresher, number of equines, whether households rented-out land, at least a member migrated, and non-participation in programs consistently increase yield, whereas higher age, frequencies of drought shocks in the last five years, and shifting from crop to livestock consistently decrease yield. Moreover, somehow consistent with the descriptive result, mixed-farming dummy increases yield, but weakly significantly. (3) Similarly, the transformative investment in thresher increases yield, whereas intercropping and drought-resistant crops decreased yields in at least three of the estimations. (4) Dummy for the participants of AGP significantly increases yield in the land abundant quartiles II & III; dummy for non-program does too in all the estimations, but that of PSNP has mixed effect. Similar to PSNP, regional and agro-ecological dummies have mixed role relative to other regional dummies. (5) Higher age, family-size, landholding, social-capital, cooler agro-ecologies, less hot-days, weather information, ease to access land & water for livestock, use of modern feed, and less drought-shocks affect the adoption of mixed-farming. Adaptation mechanisms that reduce the effect of climate shocks improve yields.

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A GIS approach to electrification planning in Cameroon*

Nadia S. Ouedraogo¹

Abstract:

Energy management strategies that ensure that energy supply and demand related policies and investment decisions consider all feasible demand- and supply-side options and are consistent with global goals for sustainable development are essential for achieving universal energy access.

In this study, the Open-Source Spatial Electrification Toolkit (OnSSET) is tested against the case study of Cameroon. The results show that achieving universal access to modern energy services in Cameroon requires prioritising investments in grid densification, extension, and modernisation, along with distribution systems. It is also found that mini grid PV systems can play a significant role in meeting Cameroon's electrification goals. The total cost of bringing electricity to the nearly 10 million Cameroonians who do not have access to it by 2035 is estimated to range between USD 7.8 billion and USD 10.44 billion.

Lessons can be drawn for Ethiopia electricity planning.

¹ **Presenter:** Nadia S. Ouedraogo, PhD; Economist, Macroeconomics and Governance Division, United Nations Economic Commission for Africa (UNECA)

Digitizing National Planning Frameworks for the Coherent Implementation of Global and Continental Commitments

Bartholomew Armah; Oyebanke Abejirin¹; Atkeyelsh Persson; Freida M’Cormack; Citra Kumala & Gezehagn Gutema

Abstract

National development plans (NDPs) serve as governments’ ‘blueprint’ for achieving desired development outcomes ideally based on the needs and priorities of citizens. The planning process is however, occurring in an increasingly complex development landscape characterized by rapid technological innovations, extreme weather events and shocks such as the Covid-19 pandemic and the Russia-Ukraine war. Integrated development planning frameworks that reflect countries’ national, regional, and global commitments, are aligned with financial frameworks, appropriately identify catalytic and transformational interventions, and are continually tracked and evaluated are vital for responding to emerging crises and shocks and ensuring value-for money in the use of national resources.

Supported by digital technology, integrated planning can enhance the responsiveness of planning frameworks to shocks by seamlessly linking the various components of the planning process in one platform. Digital technology strengthens the planning process in critical areas such as data analytics, diagnostics of results frameworks and automated tracking and alignment of development priorities to international commitments and financing frameworks. These capabilities are particularly important as the number of international commitments continue to grow, financing needs expand and the data requirements to track performance escalate.

Inspired by the need to enhance the responsiveness of planning frameworks to the demands of a rapidly evolving development landscape, the Economic Commission for Africa (ECA) developed a web-based planning tool called the Integrated Planning and Reporting Tool (IPRT) in 2017. This paper analyzes critical issues, challenges and opportunities in development planning that emerged during the rollout of the IPRT in 28 planning entities in Africa. Drawing on these experiences, the paper offers recommendations and policy perspectives to enhance planning outcomes in Africa. The analysis is informed by desk research, survey data, observations, and informal discussions with development planning experts encountered during the rollout process.

¹ **Presenter:** Oyebanke Abejirin, PhD; Development Economist; Development Planning Section (DPS); Macroeconomics and Governance Division (MGD); United Nations Economic Commission for Africa (ECA)

Determinants of Rural-Urban Migrants' Employment Choice in Urban Labor Market: Study from selected cities in central Oromia, Ethiopia

Oumer Berisso¹

Abstract

This paper investigates the determinants of rural-urban migrants' employment choices in the urban labour market in selected cities in central Oromia, Ethiopia. The study used cross-sectional data obtained from youth migrants aged 15–30 years, who have been living in the cities at least for six months in the last five years. We used a multistage purposive, stratified, and random sampling technique to guide the sampling process. Accordingly, after the labour-intensive industry hubs in the country were selected purposefully from cities in central Oromia, taking into account the engagement of migrants in economic activities, we categorized the urban labour market purposively into five urban employment segments. Lastly, after distributing sub-samples purposively and proportionally for each segment and to each city, we gathered information from 883 participants randomly using questionnaire. The study employed both descriptive and econometric techniques to analysis the data. For the econometric analysis, logistic regression, a multinomial logit mode was used to identify factors determining migrants' job choices in these employment segments. The finding reveals that the migrant's sex and parent's annual income have positive significant effects on all employment segments. Migrant's marriage, information deficiency on job availability, being from a small urban area, and father's occupation have significant positive effects on self-employment, while migrant's lack of city identification card and dispute encounters in the city have significant negative effects on the segment. Duration of living in cities, information deficiency on the job, father's education, and occupation have significant positive effects on informal private employment, while migrant's marriage, household size, and lack of identification card have affected negatively. A migrant's age, preparatory schooling level, university education, access to registration, and advisory services in the city have significant positive effects on both (private and public) formal employment. The findings of the study provide additional evidence on migrants' employment choice in urban labor market in developing countries and highlight some determinants factors. The study has made conclusions and drawn policy implications for possible interventions to urban labour market limitations so as to reduce their negative consequences in city centres.

Keywords: urban labour market, rural-to-urban migrant, employment segments.

JEL Classification: E24; E26; J21; J24; J45.

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Analyzing Bank Stability in Ethiopia: Panel Data Evidenced over the Period 1999/00 to 2021/22

Abreham Gebeyehu¹

Abstract

Recognizing the research gap on areas of analyzing the financial soundness in Ethiopia, this study attempts to look into the trend in banks stability position over the period 1999/00 to 2021/22, identify the major macro prudential, sectoral and bank specific variables determining stability position of banks and tries to anticipate the Ethiopian banks capacity to resist shocks or possible challenges. The study employed panel data of macro and sectoral indicators from NBE annual report and Bank specific data on financial statements from annual reports of all commercial banks in the country. Banking Stability Index (BSI) as estimated by Altman's Z-Score Model of financial stability is employed as dependent variable. Specific panel regression for random effect model supported by tests of multicollinearity, Bruesch and Pagan Test and Hausman test is estimated. The regression result came up with the finding that bank size and management inefficiency is negatively related while Money supply, capital adequacy and deposit position is positively and statistically significantly related with banks' financial stability position. Other variables: GDP growth, inflation, asset quality, solvency ratio, share of non-interest earning assets and ownership are found out to be statistically insignificant to affect the stability position of Banks. This leads to a conclusion that being capitalized banks, having strong deposit position, managing costs efficiently, managing and controlling risks vis a vis its size is sign of having stable financial position in the Ethiopian Banking industry. Besides, the result further turns out that most Ethiopian Banks are infant in their capital adequacy hence are not in strong position to resist shocks and confidently win in stiff competitive environment. The Banks' strategies shall thus focus on mobilizing deposit and building the capital position while at the same time becoming conscious on properly managing costs and risks.

Key Words: Bank Stability Index (BSI), Deposit, Capital Adequacy, Money Supply, Bank Size, Management Efficiency

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An Empirical Analysis of Food Poverty in Urban Ethiopia

Zenaye Degefu Agazhi^{1*} and Melkamu Mada¹

Abstract

The purpose of this study was to assess food poverty, consumption inequality, and the determinants of food poverty in urban Ethiopia. The fourth wave survey of Ethiopia's Living Standards Measurement Study (LSMS) 2018/2019 was used for this study. Food poverty was assessed using the Foster-Greer-Thorbecke index, the Lorenz curve, and the Gini coefficient, which were estimated to capture consumption inequality, and a quantile regression model was used to identify the determinants of food poverty in urban Ethiopia. This study comprised 3,596 urban Ethiopian households with an average age of 40.45 years. An inflation-corrected national food poverty line was used as a cut point to identify food-poor and food-non-poor households, which was found to be 5129.92 ETB per year PAE. The results of the FGT indexes indicate that about 17.7% of urban households were food poor. Food poverty was prevalent in the SNNPR at 36.7% compared to the rest of the region's urban households, but it was lower in Harer (7.5%). It was also confirmed that food poverty was high among female-headed and divorced households. In addition, it is confirmed that food consumption inequality is not a serious problem in urban Ethiopia. Furthermore, the results of quantile regression indicate that food poverty increases as family size and the age of the household head increase, whereas having a mobile phone, saving money, better utility expenditure, the number of rooms, and education alleviate food poverty in urban Ethiopia.

Keywords: Food Poverty, Consumption Inequality, FGT, Quantile Regression, Ethiopia

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The Dynamic Linkage between Renewable Energy Consumption and Environmental Sustainability in SSA Countries: Heterogeneous Macro-Panel Data Analysis

Mulugeta Bekele,¹ Maria Sassi,² and Kedir Jamal³

Abstract

Environmental sustainability is a crucial pillar of sustainable development that has strongly attracted the attention of development researchers. In this context, attention has focused on energy consumption as a critical factor that explains the variations in environmental sustainability across countries. The main objective of this study is to investigate the dynamic linkage between renewable energy consumption and environmental sustainability in 30 Sub-Saharan Africa countries, employing panel data from 2000-2020. Necessary pre-estimation tests like cross-sectional dependence test (Pesaran, 2004), slope homogeneity test (Pesaran and Yamagata, 2008), second-generation panel unit test i.e., cross-sectional augmented Im-Pesaran-Shin (CIPS) test (Pesaran, 2007) and panel co-integration test (Westerlund, 2007) which are robust under conditions of cross-sectional dependence were conducted. For the sake of long-run estimation, the Augmented Mean Group (AMG) and Common Correlated Effects Mean Group (CCE-MG) estimation techniques were employed as they are robust under the situation of cross-sectional dependence, heterogeneity, endogeneity, and serial-correlation issues. Further, the long-run estimation controlled the possible effects of institutional quality, economic growth, population growth, and policy dummy. The results of the study indicated a positive and statistically significant long-run relationship between renewable energy consumption and environmental sustainability in SSA countries. Further, Dumitrescu and Hurlin (2012) Granger non-causality test results revealed a bi-directional causality between renewable energy consumption and environmental sustainability. Therefore, diversifying renewable energy sources is among the policy options that SSA countries and policymakers could work on to achieve the goals of environmental sustainability as well as sustainable development.

Key Words: Africa; Development; Environment; Sustainability; SSA.

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Banking Competition and Financial Inclusion: Evidence from Ethiopia

Dereje Regasa[¶] and David Fielding

Abstract

The recent literature on financial inclusion has shown the importance of several characteristics of the local and national infrastructure, such as the physical proximity of local banking services. However, the level of financial inclusion may also depend on another characteristic of the banking sector: the number of different banks operating in the local area. If more banks are operating in the area, there is likely to be a higher level of competition, lowering costs to customers. Using data from Ethiopia, we show that, conditional on the proximity of a household to banking services, the number of local banks is strongly associated with the probability that the household will have access to formal-sector financial services. Further statistical analysis suggests that this is a causal effect. Our results indicate that promoting competition in the banking sector is likely to raise the level of financial inclusion.

Key words: Ethiopia, financial inclusion, banking

JEL classification: O16, G21, G51

Causes of Informal Sectors: Case of Women street vendors in Dire Dawa City, Ethiopia

Tazeb Bisset¹

Abstract

Women participation on street-vending activities takes the larger segments of urban informal employment in Dire Dawa city, Eastern Ethiopia. Accordingly, this study aimed at identifying factors affecting the causes of informal sectors in Dire Dawa City. In doing so, primary data from a sample of 384 women street vendors were collected through structured questionnaire. The study result from Multivariate probit regression modeling concluded that while the early stages of age growth has a positive effect on women's street-vending activities as a response to the absence of jobs and tight bureaucratic conditions in the formal sector; the later stages of age growth has negative but significant effect on the two respective causal approaches of informal sector. Here also, while an increase in the household size has a positive and significant effect on the women's voluntary engagement on street-vending activities; it has a negative but significant outcome on their participation of similar activities due to lack of jobs and bad bureaucratic conditions in in the formal business. On top of that, relative to Christians, while Muslim women's voluntary engagement on street-vending activities is lower; it happens to be higher as retaliation to bureaucratic legal condition in the formal sector. Hence, before taking any strategic measures, policy makers in the city should understand the distinct causal approaches of informal economy in general, and the heterogeneous effects of different explanatory variables on the causes of the women's street vending activities in particular.

Keywords: Informal Economy. Woman street vendors. Causes of Informal sector. Multivariate probit regression. Dire Dawa city.

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Does unequal tax burden contribute to women-owned businesses leaving the tax net?

Alemayehu Ambel and Firew Bekele Woldeyes

Abstract

By combining administrative and survey data on 2,316 individual-owned businesses in Addis Ababa, the study provides evidence of gender differences in the characteristics of firms that are relevant for tax reporting and payment. The study analyzes panel data of firms for the period 2011 to 2017 using a quantile regression analysis. The study finds that women-owned businesses are just one-third of the taxpayers and engage more in sectors such as beauty treatment, recreational activities, and laundry services. The result shows that women-owned businesses report lower sales and tax liabilities compared to men-owned businesses. Even after controlling for firm characteristics, the difference in reported sales and tax liabilities remained. Despite their lower reported sales and tax liabilities, women-owned businesses paid as much as men-owned businesses in taxes, which is decided by the authority's assessment. In the end, women-owned businesses exited the tax net more than men-owned businesses.

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Considering the number of papers, we have and the need to have reasonable time for discussion, the Ethiopian Economics Association would like to advise paper presenter to note the following points:

1. Briefly introduce themselves;
2. Use 15 minutes including self-introduction; and
3. Give due attention to the findings (minimize or take out discussion on methodologies) and limit the number of slides accordingly.

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2. Facilitate the discussion i.e. the chairpersons are advised as much as possible not to involve themselves in the discussion;
3. Try to keep the time allotted to each paper presenter which is about 15 minutes in order to allocate more time for discussion; and
4. Remind paper presenter when 5 minutes remains and stop when the time is over.

Thank you



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