FINAL REPORT
NATIONAL ASSESSMENT: ETHIOPIA
GENDER EQUALITY AND THE KNOWLEDGE SOCIETY

wisat
women in global science & technology

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Acronyms

AIMDG: African Institute of Management, Development, and Governance

CEDAW: the Convention on the Elimination of All Forms of Discrimination against Women

CSA: Central Statistics Agency

EPRDF: Ethiopian Peoples' Revolutionary Democratic Front

ESDP Education Sector Development Program

FGM: female genital mutilation

GBV: Gender-Based Violence

GII: Gender Inequality Index

GPI: Gender Parity Index

GER: Gross Enrollment Ratio

HTPs: Harmful Traditional Practices

MoE: Ministry of Education

MoFED Ministry of Finance and Economy Development

MOST: Ministry of Science and Technology

MoWCYA: Ministry of Women, Children and Youth Affairs

NAP-GE: National Action Plan Gender Equality

NER: Net Enrollment Ratio

NGO: Non-Governmental Organization

PASDEP: Plan for Accelerated and Sustained Development to End Poverty

PSNP: Productive Safety Nets Program

GTP: Growth and Transformation Plan

RGP: Real Growth Rate

SDPRP: Sustainable Development and Poverty Reduction Program

SME: Small and Medium Enterprises

SNNPR: Southern Nations Nationalities and People Region

STEM: Science, Technology, Engineering, and Mathematics

STIP: Science, Technology, and Innovation Policy

TB: Tuberculosis

TVET: Technical and Vocational Education and Training

UNDP: United Nations Development Program

USAID: United States Agency for International Development

WHO: World Health Organization

Summary of Tables

Project Overview and Framework

This report is a national assessment of the preparation and participation of women and girls in the knowledge society in Ethiopia. Informed by the belief that women should have equal access to technologies and participate fully in the knowledge society, it employs the Women in Global Science and Technology's (WISAT) Gender Equality and the Knowledge Society framework (GEKS), a tool that assesses the readiness and status of girls and women in science, technology, and innovation globally. GEKS incorporates indicators that relate not only to the ability of women and men to participate in STI, but also the conditions for socioeconomic and political development that determine the ability of both women and men to contribute to the knowledge society. Thus, it assesses a country's enabling policy environment as well as measures variables such as women's:

- health status
- social and economic status
- access to opportunities
- level of political participation
- access to resources
- access to science and technology education
- access to and use of technology
- decision-making in knowledge society sectors
- participation in science
- technology and innovation systems
- access to lifelong learning

The study involved the collection and assessment of existing quantitative and qualitative data as identified by GEKS. Whenever possible, the study drew on existing national quantitative data from the last 10 years that matched or was similar to indicators outlined in GEKS. When national data was not available, the most recent data by multilateral or non-governmental organizations was consulted. The qualitative report also reviewed relevant policies at the national and regional level and in some cases involved interviews with key informants, especially in the field of gender, information technology and science, and national women's policy. The qualitative data helps to contextualize the quantitative data, as well as provide anecdotal cases, examples, and snapshots of the situation in Ethiopia.

Summary of Findings

Dimension 1: Enabling Policy Environment

In the last decade, the Ethiopian government has recognized the critical role women's empowerment plays in achieving its development goals and consequently instituted various legal and policy reforms. Major instruments for gender equality include constitutional prohibition of gender discrimination and the guarantee of equal rights to women, reforms to the penal code, affirmative action policies for women, the ratification of international women's, children's and human rights treaties, and various civil sector reforms to create a favorable environment for women workers.

Dimension 2: Health Status

Ethiopian women live in one of the world's poorest countries and thus face a myriad of health problems. While antenatal care from skilled health care providers has reached close to half of those in need, postnatal care remains negligible. Rural mothers, those who have less than a secondary education, and poorer women are at particularly disadvantaged, receiving less maternal care from skilled health providers than their urban, wealthier, and more educated counterparts. Despite these challenges, the government has made strides in improving women and girls' health.

In recent years, the federal government has also given the HIV/AIDS crisis a sustained focus and has substantially reduced deaths due to HIV/AIDS, malaria, and tuberculosis. Nonetheless, women in Ethiopia continue to be afflicted by and die from these diseases at higher rates than men.

Ethiopian women also face grave threats to their physical integrity. Female Genital Mutilation (FGM) is still widely practiced throughout the country, persisting across religious and ethnic groups. The government has implemented several legal and policy changes to ensure that the practices cease in the country, however, including the revision of the Criminal Code in 2005, which explicitly outlawed FGM. The practice is beginning to show a decline in almost all regions, although the numbers affected remain high.

Dimension 3: Social Status

Ethiopia's population structure reflects no large gender imbalances across age groups. Although data on son preference is scarce, the preference of sons over daughters of property inheritance and widespread violence against girls and women indicate an overall culture of overvaluation of boys and men. Ethiopian women are especially vulnerable to harmful traditional practices (HTPs) such as early marriage, abductions and forced marriages, and female genital mutilation, as well as economic, physical, psychological, and sexual violence. Violence against girls such as sexual harassment by male teachers and peers leads to poor academic performance and school dropouts among girls, hindering their ability to be full participants in a knowledge society. Promising new laws and policies prohibiting various types of gender-based violence (GBV), including the revised family code, the outlawing of HTPs, the introduction of women's rights

into the constitution, and the reform of law enforcement and criminal proceedings have come into effect, however.

Ethiopian women expend more time than men in providing uncompensated labor both inside and outside the home, while men tend to get paid and earn more for their productive work. In both urban and rural areas, women and girls have tremendous domestic workloads and are mainly responsible for caregiving and unpaid community work. Consequently, women have less time than men to pursue education, consult media sources, or partake in leisure activities. Directly or indirectly, the limitation on women's times prevents them from being wage earners, informed decision-makers, and innovators in knowledge societies.

Dimension 4: Economic Status

Ethiopian women have one of the highest rates of economic participation in the world, but this rate is lower than that of men in the country. They tend to be employed more in the informal sector, and they are afflicted by unemployment more frequently than men. Males in Ethiopia are also paid more than females for the same job across sectors. Furthermore, most work traditionally associated with men and masculinity also remains out of reach to women.

Dimension 4: Access to Resources

Ethiopian women own property and assets at a lower rate than men. While formal data is scarce, there is some evidence that Ethiopian women's access to credit and their savings are low.

The Ethiopian government has explicitly stated its intention to ensure women's full participation in the information and communication sector and seems to be making headway in expanding female ownership of mobile phones. Between June 2014 and May 2015, 20% of new mobile subscribers were women. However, there is a lack of sex-disaggregated data to shed light on questions of gender equity in terms of mobile use. And there is little information about women's Internet access and use.

Very little is known about women's use of transportation infrastructure in Ethiopia. Sex-disaggregated data regarding women's access to electricity is also scarce. Some studies of women's use of energy sources reveal, however, that women, especially those living in rural areas, face unique energy-related challenges, particularly relating to food preparation. They spend a great deal of time looking for firewood, the major source of energy for cooking.

Dimension 5: Access to Resources

Ethiopian women own property such as housing and land at a lower rate than men. While rural women had more access to assets like land and housing compared to urban women, the latter had better resources in their homes such as flushing toilets as well as better access to personal effects such as radios and time-saving appliances, allowing them more time to spend on commuting and communication than their rural counterparts. The control of assets is also gendered. Women in both rural and urban settings exercise more control over small-scale assets while men have more authority over vehicles and farm equipment. The gender gap in asset and resource ownership is less pronounced in urban areas.

The government has made efforts to extend credit to women and to bolster their savings, although official sex-disaggregated data does not yet exist. The gains are modest, however, with studies showing that women around the country, especially rural women, have limited access to credit and capital and had low savings.

Sex-disaggregated data on women's use of cell phone and Internet is also scarce, preventing accurate and recent knowledge of female mobile owners and their use patterns. There are some changes taking place in mobile use, however., with more women becoming mobile phone subscribers. Questions of gender equity in terms of use and access remain unclear, however. While older studies suggest that Ethiopian women are at a distinct disadvantage in use and access, in light of the recent explosion of mobile phone subscriptions in Ethiopia, new data is necessary to assess the gender trend of mobile use. While there is limited information on women's Internet access and use patterns, men and women seldom use the Internet in Ethiopia as compared to other countries. Some data suggests, however, that men use it a double the rate of women, although this conclusion needs reevaluation given the growth of mobiles phones and smart phones in the country.

Women's use of railroads and other transportation infrastructure and women's access to electricity are not well understood due to scarce sex-disaggregated data. Some studies of women energy use show, however, that women, especially rural ones, bear the overwhelming burden of domestic responsibilities, including the gathering of energy sources such as firewood. The lack of access to resources such as energy has implications for women's lives, including whether or not they have time be participants in the knowledge society as workers and learners.

Dimension 6: Women's Agency

Ethiopian women's presence in government has been growing in the last decade. In the 2015 fifth general election cycle, 21.8% of the candidates running for office were women. During the fourth general election cycle, women accounted for 25.5% of seats in parliament.

Women's use of contraceptives and their ability to determine when and how many children they have are improving. In 2014, the average number of children per woman had decreased to 4.1 from 4.8 in 2011, a decline that is due to the awareness and dissemination of contraceptives, of which the government is the primary supplier. Improved access to contraceptives has also decreased the number of unintended pregnancies for Ethiopian women, although in events of

unwanted pregnancies, Ethiopian women have limited recourse, as abortion remains illegal except in few cases.

Dimension 7: Opportunity and Capability

Ethiopian women have one of the world's lowest literacy rates at 41% and their rate is lower than that of men. The government has seen tremendous success in educating girls at the primary level, however, with the gender gap in net enrollment rates for boys and girls at the primary and secondary levels converging in the last 5 years. Female enrollment at technical and vocational education and training (TVET) programs, too, is almost equal to men's. Higher education institutions have not closed the gender gap, however, with the percentage of female students hovering around 30%.

While information on gender patterns in training is scarce, females appear to receive less training than males. There is no data available on women's access to lifelong learning in Ethiopia.

Dimension 8: Women in Knowledge Society Decision Making

The percentage of women in knowledge society decision-making in Ethiopia is low, accounting for 26% of managers and 14% of chief executives, senior officials, and legislators in 2012. Not surprisingly, women's share was better in the hospitality, retail, and other service-related industries. There is no sex-disaggregated data on the share of women in decision-making positions among businesses.

Dimension 9: Women in the Knowledge Economy

In 2013, women accounted for a little over 30% of professional workers, with higher representation among health professionals and information and communications technology professionals. Women are almost absent among professional workers and technical workers in the science and engineering field, however. While the number of Ethiopian women in managerial positions in the knowledge economy is low overall, it varies by sector.

Women's employment in the agricultural, service, and industrial sectors is growing. They made up 45% of the agricultural labor force in 2014. Women dominated the service sector, constituting 65% of the labor force in 2013. In the industrial sector, they made up 46% of the workforce in 2013, although in industrial subsectors such as construction, they reached roughly 21% while in manufacturing they accounted for over 60% of the employed. In professional, scientific, and technical subsectors connected to the industrial sector, women accounted for 30%.

Ethiopian women's participation as information technology workers is growing. Women accounted for 41% of the computer, electronic, and optical products manufacturing sector labor force in 2013. At Ethio Telecom, the state-owned and largest ICT employer, female employment in 2015 was slightly more than 25%, although in highly technical lines of work such as networking, they accounted for only 8%.

Information about Ethiopian women's computer skills is scarce, although some older studies suggest that while Ethiopian men and women browsed the Internet equally, men employed

computers at a higher rate for word processing, working on spreadsheets, remixing, programming, and playing games.

Dimension 10: Women in Science, Technology, and Innovation Systems

The share of Ethiopian women in science and technology programs in higher education has been low, but the government's policy to stream 70% of all university entrants into the science and technology track is beginning to increase their entry into these fields. In 2013, females accounted for 27% of students enrolled in science and technology studies.

Little is also known about the share of women scientists and engineers. Some studies suggest that women scientists and engineers are few in the country, however; in 2013, men accounted for 80% of the staff in science and engineering departments at the 13 new public universities.

Similarly, there is a dearth of data on the share of women researchers in Ethiopia or their research output or innovations. As a way to encourage women innovators and innovations, the Ministry of Science and Technology (MOST) has initiated programs including awards that highlight female innovators and support for innovations that increase women's free time. Despite these efforts, challenges remain, however, with hardly any women innovators emerging.

There is no information tracking gender trends in the loss of workers in highly skilled fields in Ethiopia, although mass migration characterized the country. Similarly, there is very little information about the number of women-run enterprises in sector value chains.

Dimension 11: Women and Lifelong Learning

Ethio Telecom has established knowledge centers in villages and towns, and it has been promoting women's use of them but no official data exists yet on women's use patterns.[1]

[1] Wzo. Adanech. Gender Bureau Director, Ministry of ICT. Personal Communication. June 2015.

Ethiopia: Country Overview

Located in the horn of Africa, Ethiopia borders Eritrea in the north, the Sudan in the northwest, South Sudan in the west, Djibouti to the northeast, Somaliland in the east, and Somalia and Kenya to the south. It covers an area of 1.14 million square kilometers (944,000 square miles). The country is home to several ethnic groups, religious practices, languages, and physical landscapes. Following the ousting of the communist regime in 1991, the new government has restructured the country as the Federal Democratic Republic of Ethiopia, a multiparty constitutional ethnic federation. It is made up of 9 regional states: Tigray, Afar, Amhara, Oromiya, Somali, Benishangul-Gumuz, Southern Nations Nationalities and People Region (SNNPR), Gambella and Harari and two administrative cities (Addis Ababa and Dire Dawa).

A SNAPSHOT OF ETHIOPIA'S ETHNIC REGIONAL STATES AND CITY ADMINISTRATIVE COUNCILS

OROMIYA: The state of Oromiya is the largest state in the country, its expansive territory bordering numerous regions as well as the Republic of the Sudan. It home to the largest ethnic group in the country, the Oromo, who comprise 85% of the region's residents, although the Amhara (9.1%) and the Gurage (1.3%) also reside there. Oromiffa is the official language of the state. The major religions include Islam (44.3%), Orthodox Christianity (41.3%), Protestantism (8.6%), and traditional religions (4.2%). Oromiya provides 51.2% of the crops and 44% of the total livestock population of Ethiopia, making it the economic epicenter of the country.[2]

AMHARA: Located in the northwestern and north central part of Ethiopia, an estimated 91.2% of the residents of this state are ethnic Amhara. However, the Oromo (3%), Agew/Awi (2.7%), Kimant (1.2%), and Agew/Kamyr (1%) also reside here. A majority of the inhabitants are

[2] Ethiopian Government Portal: Oromia. http://www.ethiopia.gov.et/web/pages/StateOromia

Orthodox Christians (81.5%), although there is a significant Muslim population (18.1%) and a very small Protestant population (0.1%). A majority of the population, an estimated 85%, are farmers and the state is one of the major producers of teff, Ethiopia's staple crop. The Amhara region is one of Ethiopia's most significant tourist destinations, home to the 12th century rock-hewn churches of Lalibela, the medieval palaces in Gondar, and the ancient monasteries of Lake Tana. The Semien Mountains National Park, home of the rare Walia ibex, the Blue Nile Falls, as well as the caves and unique stones in northern Shewa are also among the natural attractions found in the region.[3]

TIGRAY: The state of Tigray lies in the northern highlands of Ethiopia and borders Eritrea in the north and the Republic of the Sudan in the west. The state is home largely to the Tigraway, who make up 94.98% of the state's population. Other ethnic groups include the Amhara (2.6%), the Erob (0.7%), and the Kunama (0.05%). Tigrigna, an ancient Semitic language whose roots date to the now-extinct ecclesiastic language Ge'ez, is the official language of the state. Most of the population practices Orthodox Christianity (95.5%), although there are some Muslims (4.1%) and Catholics (0.4%). About 83% of the population is farmers. The region is one of the most historically significant in the world, known for its pre-Christian Axum Empire and its monuments and obelisks, as well as Yeha, a pre-Axumite site. It is also said to be the home of the legendary Queen Sheba and the Ark of the Covenant.[4]

THE STATE OF SOUTHERN NATIONS, NATIONALITIES, AND PEOPLES' (SNNP): SNNP is located in the southern part of the country, sharing borders with Kenya in the south and the Republic of the Sudan in the southwest. A multi-ethnic state, SNNP includes more than forty-five ethnic groups. Sidamigna (18%), Guragigna (14.72%), Wolayitagna (11.53%), Hadiyigna (8.53%), Keffigna (5.22%), and Kembatigna (4.35%) are also widely spoken languages.[5]

SOMALI: The Somali state is located in the eastern and southeastern parts of the country, bordering the Republic of Djibouti, Kenya, and Somalia. It is home mostly to the Somali people, roughly 95.6% of the residents. They speak mainly Somali and are mostly pastoralists who breed livestock. Islam is the predominant religion, practiced by 98.7% of the population.[6]

AFAR: The region of Afar is in the eastern part of Ethiopia, sharing national borders with Eritrea in the northeast and the Republic of Djibouti in the east. The major ethnic compositions are Afar (91.8%), Amhara (4.5%), Arroba (0.92%), Tigraway (0.82%), Oromo (0.7%), Wolaita (0.45%), and Hadiya (0.013%). Most of the population (96%) is Muslim. The Afar people are mostly pastoralists and the region is known as the origin of the human species, where the world's oldest humanoids have been discovered.[7]

THE GAMBELLA PEOPLES' REGION (GAMBELLA): This region is a multiethnic state that borders the Republic of Sudan and South Sudan in the west. It is home to the ethnic Nuer (46.65%), Anuak (21.17%), Amhara (8.42%), Kafficho (5%), Oromo (4.83%), Kambaata (1.44%), Mezhenger (4%), Shakacho (2.27%), **Tigrean** (1.32%), and other groups (4.9%). Christianity is the major religion, with roughly 70% of the population following Protestantism, 16.8% adhering to the Orthodox Christian faith, and about 3.4% practicing Catholicism (3.4%).

[3] Ethiopian Government Portal: Amhara. http://www.ethiopia.gov.et/web/pages/StateAmhara
[4] Ethiopian Government Portal: Tigray. http://www.ethiopia.gov.et/web/pages/StateTigray
[5] Ethiopian Government Portal: SNNP. http://www.ethiopia.gov.et/web/pages/StateSNNP
[6] Ethiopian Government Portal: Somali. http://www.ethiopia.gov.et/web/pages/StateSomali
[7] Ethiopian Government Portal: Afar. http://www.ethiopia.gov.et/web/pages/StateAfar

About 4.9% are practitioners of Islam and 3.8% follow traditional religions.[8] Farming and livestock rearing make up the bulk of the economy, but in recent years, the region is believed to be a major source of oil.

BENISHANGUL-GUMUZ (BSG): BSG is located in the northwestern part of Ethiopia and borders the Republic of the Sudan. Major ethnic groups include Berta (25.41%), Amhara (21.69%), Gumuz (20.88%), Oromo (13.55%), Shinasha (7.73%), and Agaw-Awi (4.22%). There are slightly more Muslims in the region, making up 44.98% of the population, followed by Orthodox Christians at 33.3%, Protestants at 13.53%, and practitioners of traditional beliefs at 7.09%. Agriculture and livestock rearing are the backbone of the state's economy.[9]

HARARI: The Harari state is located in the Eastern part of Ethiopia. Although the Harari language is the official language of the State, its ethnic composition includes Oromo (52.3%), Amhara (32.6%), Harari (7.1%), and Gurage (3.2%). A majority of residents are Muslims (60.3%) although there is a considerable Orthodox Christian presence (38.2%). It is one of the most important cultural and religious centers of Ethiopia as well as the Muslim world; home to 99 mosques, the city of Harar is considered the fourth most holy city of Islam.[10]

ADDIS ABABA: Founded in 1886 by Emperor Menelik II, Addis Ababa is the capital city of Ethiopia. All of the country's ethnic groups are represented within this state, with the Amhara comprising 48.3%, the Oromo 19.2%, Gurage 17.5%, Tigrean 7.6%, and others 7.4% of the population. Most of the city's inhabitants (82%) follow the Orthodox Christian faith while 12.7% are Muslims. About 4% are Protestants, 0.8% Catholics, and 0.6% followers of other religions. Addis Ababa is Africa's diplomatic center, home to the African Union and the United Nations Economic Commission for Africa headquarters.[11]

DIRE DAWA: Along with Addis Ababa, Dire Dawa is one of the two administrative councils of the country. Located in the eastern part of the country, it borders the Somali and Oromiya regions, thus making the Oromo people almost half of the total residents (48%). Other ethnic groups include the Amhara (27.7%), the Somali (13.9%), and the Gurage (4.5%). Despite the Oromo dominance, its status as an administrative center makes Amharic the official working language. The majority of Dire Dawa's dwellers are Muslims (63.2%), followed by Orthodox Christians (34.5%), Protestants (1.5%), and Catholics (0.7%). As a major gateway city for the Ethio-Djibouti railway, Dire Dawa is a major economic and cultural crossroad for the country.[12]

After decades of war and instability, Ethiopia has emerged as one of Africa's most stable and rising economies. In the last decade, with its goal of making Ethiopia a middle-income country by 2025, the government has been investing in economic and social infrastructure, reforming the public sector and the tax codes, and developing small and medium enterprises.[13] In 2014, the

[8] Gambella Star News. "Gambella Profile." http://www.gambellastarnews.com/index.php/world/us-politics/394-gambella-profile
[9] Save the Children. "Benishangul-Gumuz Region: Area Brief." https://ethiopia.savethechildren.net/sites/ethiopia.savethechildren.net/files/Benishangul-Gumuz%20Region%20Area%20Brief_0.pdf
[10] Ethiopian Government Portal: Harari. http://www.ethiopia.gov.et/web/pages/StateHarari
[11] Ethiopian Government Portal: Addis Ababa. http://www.ethiopia.gov.et/web/pages/StateAddisAbaba
[12] Ethiopian Government Portal: Dire Dawa. http://www.ethiopia.gov.et/web/pages/StateDireDawa
[13] UNDP. "National Human Development Report 2014: Ethiopia," p.3. http://hdr.undp.org/sites/default/files/nhdr2015-ethiopia-en.pdf

Real Growth Rate (RGP) of the GDP was 10.3%, making Ethiopia the 11th fastest-growing country in the world.[14] The agricultural and service sectors are the driving engine of the GDP; in 2014, agricultural growth accounted for 47.7% of the GDP and the service sector 41.9%. The industrial sector is also expanding, accounting for 10.4% of the GDP in 2014.[15] An estimated 47.3 million people are active in the labor force.[16]

The government has been committed to eradicating extreme poverty and has been signatory to the Millennium Development Goals (MDGs), which aimed to eradicate extreme poverty and hunger, expand universal primary education, promote gender equality, reduce child mortality, improve maternal health, combat HIV/AIDS, malaria, and other diseases, and address environmental sustainability by 2015. The government has adopted pro-poor spending, dedicating 5.1% of its 2013 GDP to health-related services and expenditure.[17]

Despite its notable economic growth, Ethiopia remains among the poorest countries in the world. It ranks 173 out of 187 countries in the United Nations Human Development Index.[18] An estimated 39% of the population lives below the poverty line, and unemployment remains high at 17.5% (2012).[19] In terms of life expectancy at birth, it scored 194th in the world: in 2015, life expectancy was 61.48 years (59.1 years for males and 63.9 years for females).[20] Infant mortality is also high; in 2015, it was 53.4 deaths per 1,000 live births.[21] Moreover, while the country views its population as a human resource asset, it struggles to alleviate poverty for its large citizenry. After Nigeria, it is the second most populous country in Africa, and the fourteenth most populous in the world, with a population of 80,444,148.[22] The total fertility rate in 2011 was 4.1 children per woman, a significant drop from 2005, when it was 5.8.[23] The country also has a young population, with 44.4 % of the population under the age of 15 years.[24]

The country faces a myriad of health challenges. For instance, in 2012, lower respiratory infection claimed the lives of over one 100.000 people; HIV/AIDS, 50,000; diarrheal diseases, 41,000; protein-energy malnutrition, 28,000; preterm birth complications and neonatal sepsis and infections combined, 43,000; and tuberculosis (TB), 15 million.[25]

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[14] Central Intelligence Agency (CIA). "World Fact Book." https://www.cia.gov/library/publications/the-world-factbook/geos/et.html
[15] Ibid.
[16] Ibid.
[17] CIA. "World Fact Book."
[18] United Nations Development Program. 2014. "Gender Inequality Index." http://hdr.undp.org/en/content/table-4-gender-inequality-index
[19] CIA. "World Fact Book."
[20] Ibid.
[21] Ibid.
[22] The Federal Democratic Republic of Ethiopia Central Statistical Agency (CSA). June 2014. "Analytic Report on the 2013 National Labor Force Survey," p. 18
[23] Federal Democratic Republic of Ethiopia Central Statistical Agency (CSA). August 2014. "Ethiopia: Mini Demographic and Health Survey 2014 (Mini DHS of 2014)," p.28
[24] CSA. "Analytic Report on the 2013 National Labor Force Survey," p.19
[25] World Health Organization (WHO). "Ethiopia: WHO Statistical Profile." http://www.who.int/gho/countries/eth.pdf?ua=1

Despite the government's remarkable achievements in increasing access to education, here, too, the country continues to struggle. In 2013, 41.5% of the population aged ten years and above reported not having attended school, with females having attended school even less frequently than males.[26] School infrastructure and facilities also remain poor in the country. For instance, in 2012–13, only 21.1% of primary schools had clinics for students, 40.7% had water facilities, 43.3% had libraries, and 53.2% had pedagogical centers in which teachers could prepare teaching materials.[27]

The country's science, technology, engineering, and math preparedness is also very low. In the 2103–14 in the Global Competitiveness Report, out of 148 countries, Ethiopia ranked 108 for quality of its educational system and 109 in its quality of math and science education.[28] It also scored poorly on technological readiness (123rd), availability of latest technologies (126th), broadband Internet subscriptions (135th), and Internet users (144th).[29]

In terms of gender equality, the country also has a long way to go, although it has made great strides in the last two decades than ever before. In 2013, Ethiopia was 121st out of 187 countries in UNDP's Gender Inequality Index (GII) Rank.[30] Among females 25 years and older, only 7.8% had at least some secondary education, compared to 18.2% of males of the same age group.[31] With its commitment to the Millennium Development Goals, however, the government has taken a lead in integrating gender equity as a crucial development endeavor. For instance, its contingent of women holding seats in parliament in 2013 was 25.5%, higher than the rate in many industrialized nations.[32] The government has also implemented a number of policy and legal reforms to enable gender mainstreaming.

[26] CSA. "*Analytic Report on the 2013 National Labor Force* Survey," p.34
[27] Ethiopian Federal Ministry of Education (MoE). November 2012-2013. "Education Statistics Annual Abstract: 2005 E.C. (2012/2013)," p.37
[28] World Economic Forum. 2013-14. "Global Competitiveness Report." http://reports.weforum.org/global-competitiveness-report-2014-2015/economies/#economy=ETH
[29] Ibid.
[30] United Nations Development Program. "Gender Inequality Index."
[31] Ibid.
[32] Ibid.

Dimension 1: Enabling Policy Environment

The Ethiopian government has recognized the critical role women's empowerment plays in achieving its development goals and has instituted various legal and policy reforms. Major instruments for gender equality include constitutional prohibition of gender discrimination and the guarantee of equal rights to women; reforms to the penal code, particularly the family laws; affirmative action policies across economic, educational and political settings; the ratification of international women's, children's and human rights treaties; and various civil service reforms.

The Constitution of The Federal Republic of Ethiopia

Adopted in 1994, Ethiopia's constitution espouses the equality of men and women in the social, legal, economic, social, and political realms. Article 6 grants equal citizenship rights to men and women. Article 7 states that whatever applies to "the masculine gender shall also apply to the feminine gender." Article 25 sanctions the rights of people before the law and prohibits sex-based discrimination. Article 33 addresses citizenship and marriage, guaranteeing women who marry non-nationals their Ethiopian citizenship. Article 34 also addresses marriage rights, affirming women's equal rights during marriage, divorce, and decision-making during marriage. In Article 35, the constitution goes even further, specifically providing a comprehensive list of women's rights: it ensures women's equal rights to men, mandates affirmative action as a remedy for historical discrimination against women and explicates the state's obligation to eliminate traditional customs that harm women's minds or bodies.

Additionally, the constitution guarantees fully paid maternal leave, including prenatal leave as part of women's rights to family planning education and access. Furthermore, women have full rights as participants in formulating development policies, especially in projects that affect their interests. Property rights are also sanctioned by this article, permitting women full rights in acquiring, administering, controlling, using, transferring, and inheriting property on the same grounds as men. In the realm of employment, Article 35 also addresses women's rights in hiring, promotion, pay, and the transfer of pensions. Similarly, Article 42 underscores their equal right for equal work. Article 38 addresses women's political rights, including their voting rights.

These laws have also found traction in practice, especially in Tigray, Amhara, Oromiya, SNNP, and Benishangul-Gumuz regions.[33] Despite the tremendous strides the Ethiopian Constitution has enabled in the march toward gender equality, it is still fraught with limitations. For instance, it overly empowers religious and customary laws as arbiters of family matters such as divorce and inheritance.[34] Article 34's provision allowing disputing parties to choose customary and religious courts if both agree undermines women's constitutional protection because women are often under cultural and religious pressure to pursue the religious and customary courts that tend

[33] African Institute of Management, Development and Governance (AIMDG). "Ethiopia African Peer Review Mechanism: Country Self-Assessment Report." February 2009.
[34] Ibid. p.161

to uphold patriarchal values.[35] Furthermore, when women's cases end up in the legal courts, they are met with challenges from the religious courts.[36] That legislative power rests with the regional governments is also a problem for gender equity, as it leads to family laws that subjugate women and are in effect unconstitutional. For instance, the regional government of Oromiya had affirmed polygamy in its draft of family law, which it retracted only after women leaders and NGOs mounted an opposition.[37]

Revised Family Law of Ethiopia

Ethiopia has revised many of its penal codes in order to redress gender-based legal discrimination. It revised the Family Law in 2000 by order of Proclamation No. 213 (2000), overturning the discriminatory Civil Code of 1960. The 1960 code permitted marriage at age 15, mandated that women live at their spouses' homes, and declared the husband the head of the family. It also naturalized gender hierarchy by stating that a wife "owes [her husband] obedience on all lawful things which he orders" (635: 2), that "the husband was to give protection to his wife" (Article 644: 1), and that the husband "watch over [the wife's] relations and guide her in her conduct" (Article 644: 2).

The 2000 revised family law raised the legal age of marriage to 18, ensured women's equal rights in selecting their family residence, and granted them equal footing in family administration and in decisions about family property. It removed divorce and property settlement powers from the cultural family arbitration systems and restored those powers to the courts of law, and it added provisions protecting women in common law marriages, granting them spousal property rights if they resided with their partners for three years or longer. Citizenship laws that relegated women to second-class citizenship have similarly been amended. For instance, the law no longer permits the denial of citizenship to Ethiopian women married to foreigners and their children.

Revised Penal Code of 1957

In 2004, Ethiopia amended the Penal code of 1957 to further protect women's rights, particularly attending to the issue of violence against them. The new code made sexual violence against women and minors punishable by law and outlawed Harmful Traditional Practices (HTPs) such as female genital mutilation (FGM), including the most extreme forms of the practice, punishable by six months imprisonment. It also proscribed early marriage and abductions, practices to which women and girls are especially vulnerable.

Despite these changes, the penal code has still faced criticism for its lack of provisions against domestic violence. There are, for example, no clear laws that grant retraining orders through court orders, and the absence of comprehensive anti-violence laws dissuades law enforcement from pursing incidents of violence within marriage and cohabitation on the premise that there are no clear legal provisions.[38]

[35] Ibid.
[36] AIMDG, "Ethiopia African Peer Review Mechanism"
[37] Ibid.
[38] Ibid.

Labor Laws Reforms

Various proclamations have been passed in order to reform gender discrimination in Ethiopia's pension, civil service, and labor laws. For instance, the pension law in force through 2011 presumed that women not to be financial providers for their families and thus denied them pensions. Public Servant proclamation No. 714 of 2011 now protects the pension rights of female employees, while Proclamation No. 715 of 2012 addresses their pension rights in the private sector. Additionally, Labor Proclamation No. 377 of 2003 ensures women's rights as well as young people's rights upon the formation of an employment contract, prohibits sex-based discrimination in compensation and employment, and grants women paid maternity leave, which is also guaranteed by Federal Civil Servants Proclamation No. 515 of 2007. The Right to Employment of Persons with Disability Proclamation No. 568 guarantees the rights of disabled people to pensions and outlines employers' responsibility in ensuring appropriate working and training conditions and environments so that they can perform their work.

The provision of legal rights for women in the workplace is crucial, but serious limitations and absences persist particularly in the area of sexual harassment, where there are no laws that even define what it is. Moreover, opponents of sexual harassment law contend that the existing laws are sufficient to address these issues or that they are best pursued thorough public education. This seriously impedes women's full participation in the workforce and undermining their rights to live free of discrimination and harassment.[39]

Affirmative Action Policy

The Ethiopian Constitution enshrines affirmative action for women, declaring in Article 35(3), "[t]he historical legacy of inequality and discrimination suffered by women in Ethiopia taken into account, women, in order to remedy this legacy, are entitled to affirmative measures. The purpose of such measures shall be to provide special attention to women so as to enable them to compete and participate on the basis of equality with men in political, social and economic life as well as in public and private institutions." Article 89(7) also obligates the state to "ensure the participation of women in equality with men in all economic and social development endeavors."

International Legal Instruments

The Ethiopian government is signatory to most of the international instruments, including:

- the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW)
- the Beijing Platform for Action
- the Declaration on the Elimination of Violence against Women
- the International Conference on Population and Development

[39] AIMDG, "Ethiopia African Peer Review Mechanism"

Other international legal tools ratified by Ethiopia include the International Labor Standards Conventions C100 Equal Remuneration, which guarantees equal remuneration and calls for ending workplace discrimination, and C111 Discrimination (Employment and Occupation), which promotes the rights of working women as well as C156 Workers with Family Responsibilities. Ethiopia has also endorsed the United Nations Convention on the Rights of Persons with Disabilities.

Millennium Development Goals (MDGs)

The government has been committed to implementing these international development goals of eradicating extreme poverty and hunger, providing universal primary education, reducing child mortality, improving maternal health, eliminate HIV/AIDS, malaria, and other diseases, protecting the environment, and cultivating global partnership by 2015.

Growth and Transformational Plan (GTP)

The GTP was the Government of Ethiopia's main development plan for the period 2010–15.[40] It aimed to implement the MDGs and to transform the country into a middle-income country by 2025 through the expansion of agricultural and rural development; industrial growth, infrastructure and human development; good governance; democratization; and the adoption of technology and an increased STEM capacity. It also introduced a new education target: a 70% science and mathematics enrollment rate at the tertiary education level as a way to cultivate a population capable of managing science and innovation systems effectively.

The GTP considers the promotion of women, youth, and other vulnerable groups a critical step in accomplishing its development goals. It emphasizes increasing female enrollment as well as the number of female teachers in education and ensures rural women's ability to participate in the economy by increasing extension services to women farmers as well as providing resources to transition women from micro-entrepreneurship to small- and medium-scale business ownership and management. The GTP also plans to target women and youth to participate in non-farm income generating activities and gives a clear directive to ensure the rights of women, children, and people living with HIV/AIDS. It also outlines plans to reduce the rate of abduction, early marriage, female genital mutilation, sexual assault, labor abuse of children, and illegal child migration and trafficking.

In addition to explicating how women will be integrated in specific sectors such as health, education, and the economy, the GTP further devoted a chapter on what it called "Cross Cutting Sectors," which articulated specific ways gender and children's issues intersect with various sectors and how the government will implement and monitor gender mainstreaming.[41]

[40] The Federal Democratic Republic of Ethiopia Ministry of Finance and Economic Development (MoFED). November 2010. "Growth and Transformation Plan (GTP): 2010/11-1014/15"
[41] Ibid., p.110

Science, Technology, and Innovation Policy (STIP)

Implemented in 2012, STIP aims to increase the number of engineers and natural scientists in manufacturing and service providing enterprises. It explicitly calls for increasing "the number of females enrolling in engineering, science and TVET institutions."[42]

National Policy on Women (NPW) and the National Plan of Action on Gender Equality (NAP-GE)

In 2006, the Women's Affairs Office implemented NAP-GE for the period 2006–2010. The objective of this policy was to frame gender issues in public policies such as the Sustainable Development and Poverty Reduction Program (SDPRP), the MDGs, and the budget process. NAP-GE also aimed to create gender sensitive indicators and data collection systems, particularly in the gathering of sex-disaggregated data. Its main priority areas were poverty reduction and economic empowerment of women and girls, reproductive and health rights as well as rights in HIV/AIDS treatment, education of women and girls, eradication of violence against women and girls, empowerment in decision-making, a consideration of environmental damage on women, and the establishment of institutional mechanisms for women's rights.

Ethiopian Women Development Package

In 2006, the Ministry of Women's Affairs adopted the Ethiopian Women Development Package, a strategy document that aimed to safeguard women's constitutional rights, to end discriminatory practices such as harmful traditional practices, to reduce women's disproportionate workload, and to enhance their decision-making roles. It also endeavored to ensure the implementation the constitution, the NPW and the NAP-GE.

Productive Safety Nets Program

Launched in 2005, the PSNP was a social protection program that provided cash and food transfers to food-insecure households, especially rural ones. For households with able-bodied members, the programs required their participation in public works for households, while it provided direct cash and goods to the disabled and to other vulnerable groups such as the elderly, the chronically sick, and poor female heads of households. The program also aimed to generate additional and diverse sources of income for participants to secure credit.

Plan for Accelerated and Sustained Development to End Poverty (PASDEP)

PASDEP was the government's main poverty reduction framework for the period 2005–10. It explicitly addressed women's ability to benefit from the country's economic growth, to participate in and benefit from environmental protection and use, and to be decision-makers in politics. PASDEP envisioned gender equality as way to eliminate poverty by giving priority to rural women's equal access resources and services, introducing safety net programs to poor women, emphasizing women and girls' literacy, education, and training, and calling for the need

[42] The Federal Democratic Republic of Ethiopia. February 2012. "Science, Technology and Innovation Policy," p.7

for gender mainstreaming in all government agencies, including increasing female managers and directors. It also set out to improve women's reproductive health, prevent their vulnerability to HIV/AIDS, and end violence against women through trainings and awareness campaigns of the nation's laws and policies and strictly enforcing laws that protect women against violence and addressing HTPs.

PASDEP also planned to make women participants in and beneficiaries of information and technology by calling for an increase in women's access to information, improved technology, and alternative livelihoods as a way to enhance women's role in environmental protection and use. It also addressed the need for women's integration in knowledge systems by increasing girls' access to science, technical, and vocational education, and training.

Dimension 2: Health Status

The health status of women, taking into account malnutrition, life expectancy, and disease rates, is an important and basic indicator of women's ability to participate in the knowledge society and their overall status in their communities.[43] Women's physical integrity is also an important indicator of women's health and cultural practices such as female genital mutilation (FGM) that can physically and psychologically harm women and prevent them from benefiting fromeducation and participating in the labor force.[44]

Ethiopian women, who live in one of the poorest countries in the world where about 75% of the population suffers from preventable communicable disease and malnutrition, face a myriad of health problems.[45] Maternal health and child mortality rates are high even though the government has made tremendous strides in improving women's health, particularly by meeting the MDGs. With current government health expenditure accounting for 5.1% of GDP,[46] and much of it focused on maternal and child healthcare and infectious diseases, there have been positive improvements in reproductive health, HIV/AIDS, malaria, and tuberculosis. Ethiopian women are also vulnerable to FGM, which is widely practiced throughout the country, despite its outlawing and current declining trend.

Female Health Expectancy

In 2014, the maternal mortality rate was 350 per 100,000 live births.[47] Despite the high number, it was a significant drop from 2010, when it was 673 per 100,000 live births.[48] The adolescent birth rate was also high at 78.4 births per 1,000.[49] Major improvements are underway, however. Skilled assistance at child delivery has increased from 6% to 16% in the last fifteen years,[50] and the percentage of women who received antenatal care (ANC) from skilled providers such as doctors, nurses, and midwives reached 41%.[51] This is a significant achievement from fifteen years ago, when 73% of pregnant women received no antenatal care.[52]

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[43]Huyer, Sophia and Nancy Hafkin. 2007. *Engendering the Knowledge Society: Measuring Women's Participation*. (Montréal, Canada: Orbicom and the NRC Press Canada Institute for Scientific and Technical Information), p.80
[44]Ibid.
[45]African Health Workforce Observatory (AHWO). June 2010. *Human Resources for Health Country Profile: Ethiopia*. p.16
[46]United Nations Development Program (UNDP). "Human Development Indicators: Ethiopia." http://hdr.undp.org/en/countries/profiles/ETH
[47]World Health Organization. "Country Cooperation Strategy At a Glance: Ethiopia." http://www.who.int/countryfocus/cooperation_strategy/ccsbrief_eth_en.pdf
[48]AHWO. "Human Resources for Health Country Profile: Ethiopia." p.17
[49] UNDP. "Human Development Indicators: Ethiopia." http://hdr.undp.org/en/countries/profiles/ETH
[50] CSA. "Mini DHS of 2014," p.48
[51] Ibid. p.41
[52] Ibid. p.42

Despite such dramatic achievements, Ethiopia ranked 173 out of 187 countries in the rate of adolescents aged 15–19 giving birth in the Human Development Index of 2013.[53] Findings from the Ethiopian Mini Demographic and Health Survey of 2014 (Mini DHS) also show that only 32% of women made frequent visits to antenatal care providers during the course of their pregnancy, in itself a more than threefold increase from 10% in 2000.[54] Furthermore, although the number of women giving birth at health facilities has increased from 5% in 2000 to 16% in 2014, the number is one of the lowest in the world.[55]

The percentage of Ethiopian women who receive ANC from a doctor as opposed to nurses and midwives was very low. While this is partly a reflection of the country's chronic shortage of medical doctors in general, it also points to an urban-rural discrepancy in maternal care in Ethiopia. Whereas 80% of urban women received ANC services from a skilled provider during their last birth, only 35% of women in rural areas did so, and 25% of urban women receive antenatal care from a doctor, compared to only 3% of rural women.[56] A higher percentage of rural women seek out antenatal care from Health Extension Workers (HEWs)—20% compared with 2% of urban women[57]—and health center births are more prevalent in urban areas, at 59%, than in rural areas, at 10%.[58]

Maternal antenatal health in Ethiopia also varies greatly across the various administrative regions and educational levels. For instance, in 2014 only 19% of women in the Somali region received antenatal care from a skilled provider, while 94% of women in Addis Ababa did so.[59] The percentage of health facility births was a mere 10% in Afar, while it was 87% in Addis Ababa.[60] Women with higher levels of education across the country were also more likely to get antenatal care from skilled health providers. Ninety-five percent of women with more than secondary education sought care from trained antenatal caregivers, as opposed to 32% of women with no education.[61]

The number of Ethiopian women who receive postnatal care is negligible as well, at a rate of only 13%. However, in 2000 that number was almost nonexistent, with only 2% receiving such care.[62] In 2014, 82% of women who had given live births in the preceding five years had received no postnatal checkup and among the few who did, only 5% saw a medical professional within 41 days of giving birth.[63] Postnatal care also varies according to women's economic status, region, and age; mothers under age 35, urban mothers, those with a secondary education or higher, and wealthier women received postnatal checkups in the first two days after

[53] UNDP. 2013. "Adolescent Birth Rate (Women Aged 15-19 years." http://hdr.undp.org/en/content/adolescent-birth-rate-women-aged-15-19-years-births-1000-women-ages-15-19
[54] Ibid., p.41
[55] Ibid.
[56] Ibid., p.43
[57] Ibid.
[58] Ibid., p.47
[59] Ibid., p. 43
[60] Ibid., p. 47
[61] Ibid., p. 43
[62] Ibid., p.41
[63] Ibid., p.51

childbirth.[64]In the face of such bleak numbers, the government has nonetheless made a major commitment to improving women's health, particularly maternal and child healthcare. As a result, girls' health has steadily improved. For instance, while about 9% of Ethiopian children suffer from wasting, and 3% from severe wasting, male children suffer slightly more from wasting at 10% than female children at 7%, indicating an area where boys are disadvantaged than girls.[65]

Prevalence of Rates of Malaria, TB, and HIV/AIDS

Despite the increased attention that the federal government has given to the HIV/AIDS crisis, Ethiopia continues to rank among countries with the highest HIV/ AIDS prevalence in the world,ranking 114th out of 144 countries in the 2014–15 World Economic Forum's Global Competitiveness Report.[66] In 2010, more than one million people lived with HIV in Ethiopia and 886,000 children had lost one or both parents due to AIDS.[67] While the disease continues to exact a heavier toll on the urban population, it is also rapidly spreading into rural ones. In 2009, HIV prevalence was 2.3%, with a rate of 7.8% for urban areas and 0.8% for rural areas.[68]

However, there are some significant changes. In 2010, more than 50% HIV/AIDS patients in need of anti-retroviral therapy were receiving treatment.[69] As Table 1 shows, in 2012 deaths due to HIV/AIDS dropped to 54.6 from 131.7 in 2000. The country has also cut down malaria and TB-related deaths significantly in the last decade. Malaria deaths dropped to 16.4 from 42.5 per 100,000 population in 2012, and deaths from TB in non-HIV/infected patients dropped from 102 per 100,000 in 2000 to 32 in 2013, although both diseases along with bronchopneumonia are leading causes of death in the country.[70]

[64] CSA. "Mini DHS of 2014," p.52
[65] Ibid., p.57
[66] World Economic Forum. "Global Competitiveness Report: 2014-15." http://reports.weforum.org/global-competitiveness-report-2014-2015/economies/#economy=ETH
[67] AHWO. *Human Resources for Health Country Profile: Ethiopia*. p.16
[68] Ibid.
[69] Ibid.
[70] Ibid., p.16

Table 1: Deaths due to HIV/AIDS, Malaria, and TB

Indicators	Baseline (2000)	Latest* (2013)
Deaths due to HIV/AIDS (per 100,000 population)	131.7	54.6
Deaths due to malaria (per 100,000 population)	42.5	16.4
Deaths due to tuberculosis among HIV-negative people (per 100,000 population)	102	32

Source: Ethiopia: WHO Statistical Profile
*2012 for deaths due to HIV/AIDS and Malaria; 2013 for other indicators

While the changes are promising, Ethiopian women are still afflicted by and die from these diseases at higher rates than men. For instance, even though HIV/AIDS prevalence is high for all Ethiopian adults ages 15-24, it is higher for women in that category, at a rate of 0.5 compared to 0.3 for men.[71] The Demographic and Health Survey of 2011 found that even though general knowledge about HIV is now nearly universal, only 19% of women were found to have comprehensive knowledge of the disease and prevention methods, compared to 32% of men.[72] Additionally, in the 12 months before the survey, 1% of women had two or more sexual partners and of this 1%, 50% reported condom use. By contrast, 4% of men had two or more sexual partners, and among them, only 16% reported condom use.[73] Women's lack of sexual agency, a conservative cultural environment around sex, and women's economic disenfranchisement expose young Ethiopian women to HIV/AIDS at a higher rate.

Physical Integrity: Female Genital Mutilation (FGM)

FGM is a medically unnecessary practice of cutting or removing women's clitoris. The World Health Organization (WHO) classifies FGM into four categories. Type I (clitoridectomy) involves the partial or total removal of the clitoris and/or the prepuce, whereas Type II is when the clitoris and the labia minor are partially or completely removed, and at times the labia major is also removed. Type III, the most severe form, involves the partial or complete cutting off the clitoris and/or the prepuce (clitoridectomy) after which the vaginal opening is tightened by cutting and appositioning the labia minora and/or the labia majora, with or without excision of the clitoris (infibulation). The adhesion happens through stitching (using thorns or sutures) or through other forms such as herbal pastes and tying the legs together for healing. Type IV is a

[71] UNDP. "Human Development Indicators." http://hdr.undp.org/en/countries/profiles/ETH
[72]The Federal Democratic Republic of Ethiopia Central Statistical Agency (CSA). March 2012. *Ethiopia Demographic and Health Survey 2011.* (Addis Ababa, Ethiopia ICF International Calverton, Maryland, USA), p.189
[73] Ibid.

general category for other harmful procedures to the female genitalia, including but not limited to pricking, piercing, incising, and scraping.[74]

Ethiopia has one of the highest rates of FGM in the world and the second highest in Africa (after Egypt), with an estimated 23.8 million Ethiopian girls and women subjected to the practice.[75] FGM cuts across religious groups, with both Orthodox Christians and Muslims, the two largest religious groups, carrying out the practice.[76] The most common types of FGM practiced on Ethiopian women and girls are types I and II, accounting for 92% of cases. Type III accounts for the other 8% of cases, mostly common in the Afar, Somali, Dire Dawa, and Harari regions.[77] As Table 2 shows, FGM is widely practiced in over half of Ethiopia's ethnic groups, although Afar and Somali and Harari regions have the highest prevalence rates. In 2007, they accounted for 87%, 70.7%, and 67.7% of the practice respectively. In almost all regions, the practice has been declining, with the largest drop observed in Tigray, followed by the Amhara and Oromiya regions. Only the Somali region showed an increase in the practice.

Table 2: Percentage of Women Who Have Undergone FGM by Region

Region	**% of women with FGM (1997)**	**% of women with FGM (2007)**	**% change**
Afar	94.5	87.4	-7.1
Somali	69.7	70.7	1.0
Harari	81.2	67.2	-14.0
Amhara	79.8	58.5	-21.3
Oromiya	79.8	58.5	-21.3
Addis Ababa	70.2	52.2	-18
Benishangul-Gumuz	52.9	43.3	-9.6
SNNPR	46.3	30.8	-15.5
Tigray	48.1	21.1	-27
Gambella	42.9	27.1	-15.8
Total	79.9	74.3	-5.6

Source: 28 Too Many. "Country Profile: FGM in Ethiopia," p. 23

[74] WHO. "Classification of Female Genital Mutilation." http://www.who.int/reproductivehealth/topics/fgm/overview/en/

[75] UNICEF. 2013. "Female Genital Mutilation/Cutting: A Statistical Overview and Exploration of the Dynamics of Change." http://www.unicef.org/media/files/UNICEF_FGM_report_July_2013_Hi_res.pdf

[76] Ibid.

[77] 28 Too Many. October 2013. "Country Profile: FGM in Ethiopia," p.10. http://28toomany.org

In Ethiopia, FGM is inversely correlated to a woman's education: only 18.7% of women with secondary education have daughters who have been subjected to FGM, in contrast to 41.3% of daughters of women with no education. Data on attitudes to FGM similarly show that only 5% of women with secondary education or higher agree with FGM, compared to 41% of girls and women with no education who support the practice.[78]

Although the practice remains common, regional variations exist and there are numerous methods. For instance, the Somali and Afar regions not only extensively practice FGM but also engage in some of the most severe forms.[79] The Oromo, Amhara, and Tigray regions carry out this practice, although in these regions the practice is the less severe forms, types I and II. Practices also shift across ethnic, religious, and regional lines. In the northern part of the country, for example, FGM more often takes place at the time of birth, whereas in the south the practice is more frequently linked to marriage.[80] Practitioners also ascribe to a variety of beliefs about the necessity of the practice, such as respect for tradition and culture; prevention of rape; control of women's sexuality; sexual satisfaction of the husband; regulation of women's emotions; avoidance of social stigma; sanitation; ease of childbirth; aesthetics; and religious edicts.[81]

In recent years, the government, along with NGOs working in the country, has made a concerted effort to address the widespread practice. There are more than 82 local and international NGOs, community-based organizations, and multilateral organizations in the countries devoted to ending this practice.[82] The government has implemented several legal and policy changes to ensure that the practices cease, including the revision of the Criminal Code in 2005, which explicitly outlawed FGM and now tracks information about FGM with the Demographic Health Survey (DHS) and the Multiple Cluster Indicator Survey.[83] The various anti-FGM stakeholders have also deployed a variety of strategies for the purpose of ending the practice, including public education about the health damage that FGM causes, targeting traditional practitioners of the procedure for re-education and providing them with other means of generating income, legal changes, and the education of girls.[84] These strategies have helped curtail the prevalence of FGM throughout the country. In 2000, for instance, the FGM prevalence rate for girls and women between 19–49 years was 79.9% and by 2005 had dropped to 74.3%.[85] Attitudes toward the practice are also shifting: between 2000 and 2005, support for FGM was halved from 60% in support in 2000 to a 31% support rate in 2005.[86] Even in regions where type III is common, there is a growing trend toward the less severe forms of the practice.[87]

[78] UNICEF. "Female Genital Mutilation/Cutting."
http://www.unicef.org/media/files/UNICEF_FGM_report_July_2013_Hi_res.pdf
[79] Ibid., p.10
[80] Ibid.
[81] 28 Too Many. October 2013. Country Profile: FGM in Ethiopia
[82] Ibid, p.11
[83] Ibid. p.18
[84] Ibid., p.58
[85] Ibid., p.9
[86] Ibid. p.11
[87] Ibid. p.10

Dimension 3: Social Status

Social status indicators expose the link between cultural practices and women's overall marginalization in economic institutions and knowledge societies. They can be measured by examining variables such as sex ratio at birth, GBV, and number of hours expended on work and leisure.[88] Sex ratio at birth, for instance, can point to discriminatory practices against girls, such as feticide.[89] Similarly, GBV can reveal crimes against an individual or a community on the basis of sex that cause economical, physical, psychological, or sexual damage.[90] GBV includes acts such as domestic violence, dowry-related violence, early and forced marriages, FGM, femicide, honor killings, sexual violence, sexual harassment, and trafficking in persons, among others.[91] In a society where these acts are widespread, women's ability to safely pursue participation is compromised.[92] The gendered nature of time use and workload is also an important social indicator about participation in a knowledge society. As Huyer and Hafkin note, the time use/workload indicator raises questions about whether or not women's workload obstructs women's ability in the knowledge society and what barriers they must overcome in order to become highly skilled workers in the knowledge economy.[93]

Sex Ratio at Birth

Ethiopia's population reflects no large gender imbalances across age groups. Table 3 shows 2015 estimates of sex ratio:

Table 3: Sex Ratio Estimates, 2015

At birth: 1.03 male(s)/female
0–14 years: 1 male(s)/female
15–24 years: 0.99 male(s)/female
25–54 years: 0.99 male(s)/female
55–64 years: 0.95 male(s)/female
65 years and over: 0.82 male(s)/female
Total population: 0.99 male(s)/female

Source: CIA. "World Fact Book" https://www.cia.gov/library/publications/the-world-factbook/geos/et.html

[88] Huyer and Hafkin. *Engendering the Knowledge Society*
[89] Ibid., p.80
[90] United States Agency for International Development (USAID), *A Guide to Programming Gender-Based Violence Prevention and Response Activities. Gender-Based Violence, Draft.* (USAID Working Group, April 2009).
[91] Ibid.
[92] Huyer and Hafkin. *Engendering the Knowledge Society*, p.80
[93] Ibid.

Son Preference

There is not much data regarding son preference in Ethiopia. Cultural practices such as widespread GBV against girls and women indicate, however, that there is an overall overvaluation of boys and men in the society. Furthermore, some studies show that in case of property ownership inheritance boys receive preferential treatment despite the changing of property laws granting equal rights to inheritance regardless of gender.[94]

Prevalence of Gender-based violence (GBV)

GBV, particularly against women and girls, is common in Ethiopia, persisting across all regions and ethnic groups and in both urban and rural areas. Women and girls also face economic, physical, psychological, and sexual violence, including rape, spousal rape, beatings, sexual harassment, and economic deprivation such as inheritance discrimination.[95] Ethiopian women are especially vulnerable to Harmful Traditional Practices (HTPs), "customary acts transmitted from past generations and likely to be passed to the next."[96] Common forms of HTPs include FGM, early marriages, and abduction.[97]

A 2011 survey by the Ministry of Women, Children, and Youth Affairs (MoWCYA) found that in 4,617 reported cases of economic violence at the local level, women going through divorce were denied their share of property and their custody of children.[98] The study also found 8,655 reported cases of wife beating, physical violence against women and girls, and abduction of girls.[99] Another 404 reported cases involved rape and attempted rape.[100] Similarly, a 2009 USAID study found that an estimated 50–60% of Ethiopian women experienced domestic violence in their lifetime.[101]

Women pay a heavy toll for widespread violence in their communities. In addition to the physical and psychological devastation they endure, they also end up with unwanted or premature pregnancies and exposure to sexually transmitted diseases such as HIV.[102] Many also end up displaced from their communities, committing suicide and exhibiting poor academic performance, leading to high attrition rates of girls from schools.[103]

New laws and policies have come into effect prohibiting various types of GBV. The establishment of institutional structures of law enforcement as well as gender-sensitive criminal

[94] African Institute of Management, Development and Governance. "Ethiopia African Peer Review Mechanism," p.421
[95] Ibid.
[96] National Committee on Traditional Practices of Ethiopia. 2003. *Old Beyond Imaginings: Ethiopia Harmful Traditional Practices*, p.3
[97] Federal Republic of Ethiopia Ministry of Women Children and Youth Affairs (MoWCYA). November, 2013. "Assessment of Conditions of Violence Against Women in Ethiopia: Final Report," p.5
[98] Ibid., p.31
[99] Ibid.
[100] Ibid.
[101] USAID, *A Guide to Programming Gender-Based Violence Prevention and Response Activities*.
[102] Ibid., p.35
[103] Ibid.

proceedings, including during investigation and evidence gathering, are underway.[104] The Women, Children, and Youth Affairs offices at the federal, regional, and local levels now have legal officers who counsel women on their rights regarding violence committed against them.[105] The government has also instituted child and women protection units in police stations, and the Addis Ababa Bureau of Justice has also set up a Violence Against Women Investigation and Prosecution team. Furthermore, the Federal First Instance Court has established child and victim friendly benches, especially to deal with sexual violence cases.[106]

Since the revision of the family code and the introduction of women's rights in the constitution, women are increasingly reporting violence perpetrated against them, especially economic and physical violence; however, they hardly report psychological violence, especially in the domestic setting.[107] Additionally, despite these new anti-GBV efforts, prosecution and punishment remain low.[108] MoWYCA cites a number of reasons for the gap between policy and implementation. One crucial reason is the prevailing attitude of men's superiority.[109] Other reasons include low victim reporting; law enforcement's failure to gather and properly use evidence; the disconnect between law enforcement and medical institutions on evidence gathering; poor evidence gathering on the part of medical personnel; low bail amounts for and insufficient punishment of perpetrators; a grueling and discouraging legal process; and a low level of community awareness of the laws.[110] Furthermore, women's economic dependence on men prevents them from pursuing legal recourse because they may not have a place to go.[111] Widely held cultural beliefs that some forms of violence against women are part of the culture also make women apprehensive about going against their community and pursuing justice.[112] Even police officers investigating violence against women have been known to make comments such as "if you were really raped, you would not have been this assertive." Similarly, 2011 DHS found a widespread belief that wife beating is justified, as seen in Table 4 below:

[104] Ibid., p.74
[105] Ibid.
[106] Ibid.
[107] Ibid., p.37
[108] Ibid., p.74
[109] Ibid., p.35
[110] Ibid. p.74
[111] Ibid., p.35
[112] Ibid.

Table 4: Percentage of All Women Ages 15–49 Who Agree that A Husband is Justified in Hitting or Beating His Wife

Table 14.7.2 Attitude towards wife beating: Men

Percentage of all men age 15-49 who agree that a husband is justified in hitting or beating his wife for specific reasons, by background characteristics, Ethiopia 2011

Background characteristic	Husband is justified in hitting or beating his wife if she:					Percentage who agree with at least one specified reason	Weighted number of men	Unweighted number of men
	Burns the food	Argues with him	Goes out without telling him	Neglects the children	Refuses to have sexual intercourse with him			
Age								
15-19	25.5	28.7	25.6	34.1	25.8	51.0	3,013	2,832
20-24	22.1	25.8	25.0	32.1	21.5	44.1	2,319	2,330
25-29	21.1	25.1	26.4	30.8	21.0	44.4	2,297	2,274
30-34	19.4	23.4	20.4	26.3	18.7	39.4	1,483	1,682
35-39	20.4	25.0	26.8	25.9	19.0	43.2	1,648	1,579
40-44	18.8	22.7	24.7	27.8	17.9	42.0	1,121	1,210
45-49	21.1	26.8	27.8	28.3	19.8	43.0	952	961
Employment (last 12 months)								
Not employed	12.6	17.8	15.7	28.1	14.6	40.9	680	951
Employed for cash	20.9	25.0	24.9	28.6	20.6	43.4	8,615	8,841
Employed not for cash	26.0	29.2	28.2	34.6	24.5	49.2	3,527	3,062
Number of living children								
0	21.6	25.0	23.5	30.2	22.2	44.4	6,465	6,534
1-2	21.7	25.4	26.5	29.9	19.0	43.7	2,338	2,463
3-4	21.2	27.1	27.0	29.9	20.4	47.3	2,038	1,922
5+	23.6	27.3	28.0	30.8	22.4	45.4	1,994	1,949
Marital status								
Never married	21.6	24.5	22.9	29.5	22.0	44.1	5,600	5,641
Married or living together	21.9	26.7	27.0	30.4	20.7	45.3	6,872	6,775
Divorced/separated/widowed	24.9	27.8	28.1	37.9	23.9	49.8	363	452
Residence								
Urban	5.4	9.7	10.4	14.4	7.4	24.8	2,882	3,915
Rural	26.6	30.4	29.6	34.8	25.4	50.7	9,952	8,953
Region								
Tigray	23.2	25.7	27.5	35.5	19.6	46.0	770	1,235
Affar	23.0	29.6	29.4	29.8	26.8	42.6	101	910
Amhara	22.6	27.2	29.5	34.3	20.5	51.3	3,481	1,739
Oromiya	19.1	23.7	19.6	24.6	21.4	39.5	4,957	1,889
Somali	18.9	34.0	31.6	38.3	35.3	57.7	245	653
Benishangul-Gumuz	23.6	25.9	30.1	37.4	19.3	48.7	138	1,047
SNNP	32.7	33.8	35.9	40.6	27.7	55.5	2,307	1,550
Gambela	16.8	18.3	19.2	26.3	12.7	39.4	59	865
Harari	12.8	20.0	18.9	24.2	16.5	36.1	40	898
Addis Ababa	2.4	4.6	4.5	6.5	2.6	11.2	682	1,237
Dire Dawa	8.9	14.8	13.5	15.2	10.2	25.2	53	845
Education								
No education	31.1	36.5	37.1	40.1	29.7	58.8	3,785	3,659
Primary	22.0	25.7	24.1	30.5	21.6	45.2	6,813	6,334
Secondary	8.8	10.5	11.7	16.6	8.8	26.6	1,296	1,565
More than secondary	1.6	3.9	4.8	7.0	3.4	11.5	940	1,310
Wealth quintile								
Lowest	33.3	37.6	36.1	41.1	31.0	57.9	2,141	2,563
Second	29.1	33.7	33.2	39.9	29.2	55.3	2,362	1,891
Middle	26.3	30.6	29.6	33.3	24.5	51.5	2,454	1,935
Fourth	20.6	23.5	22.1	28.5	19.9	42.9	2,683	2,203
Highest	6.4	10.2	11.5	14.8	7.8	24.9	3,194	4,276
Total 15-49	21.8	25.8	25.3	30.2	21.3	44.9	12,834	12,868

Source: Federal Republic of Ethiopia Central Statistical Agency. 2012. "Ethiopia Demographic and Health Survey 2011," p.279

Over half of the young men between the ages of 15 and 19 were under the impression that a husband has a right to hit his wife for burning food, arguing with him, going out without telling him, or neglecting children. The numbers were not that much better for men in other age categories: close to or above 40% of those aged 20–24, 25–29, 30–34, 40–44, and 45–49, who also believed it appropriate to beat a woman for the same reasons. A little over half of the men in rural areas and a quarter of men in urban areas share the above views.

Education and income levels also seem to affect perceptions of wife beating. Nearly 60% of men with no education agreed with wife beating for the aforementioned reasons. Similarly, 57.9% of men in the lower income quintile, 55.3% of the second wealth quintile, and 51.5 of the middle quintile held these views. The percentage drops to 24.9 % among the wealthiest groups, still an

alarming number. As the 2013 MoWCYA study notes, violence against women "has become part of the culture of the society that it is not questioned as a wrongful act."[113] Moreover, some forms of violence like FGM and the deprivation of women's share of property are justified on the grounds of culture, religion, and the patriarchal nature of society.[114]

Support services for victims of violence are extremely limited. For instance, there is only one government-supported, legal, medical, and psychological service center for victims of sexual violence -- in Addis Ababa's Gandhi Hospital, established in April 2012. Although there are plans to establish more one-stop centers in other regions, as the MoWCYA concedes, "the coverage of the service (both governmental and non-governmental) is not adequate compared to the extent and gravity of the problem. Further the implementation of the multi-sectoral approach envisaged in the policy framework is quite weak."[115] Indeed the Addis Ababa center handles over 600 sexual violence cases yearly, and most of the cases involve girls between the ages of 10 and 17 years old.[116] Given the underreporting of rape cases by both women and girls, it is not difficult to see how the state has very limited reach. The center reports many challenges, victims failing to identify their perpetrators or refusing to do so out of fear of retaliation, particularly when perpetrators are relatives, and professionals do not care enough about their cases. Consequently, less than half of sexual violence cases ever reach the court system.[117]

Violence Against Female Students: A Hurdle to Women's Participation in the Knowledge Society

One of the known causes of poor academic performance and school dropouts among girls in Ethiopia is violence that targets them on the basis of their sex. Table 5 below shows the schoolgirls' perceptions of the prevalence of different types of violence and abuse in the school by teachers, parents, and students.[118] Respondents reported that after beatings by parents, teachers were responsible for abuses they endured in school such as verbal insults, name-calling, sexual harassment, threats of harm, snatching of properties, and abductions. Outside of school, respondents perceived teachers as the highest perpetrators of verbal insults (81%), beatings (74%), sexual harassment (73%), humiliation (69%), threat of harm (68%), and sexual coercion (60%). Teachers were also accused of abductions (45%) and demanding money (45%). Being at school compounds appears relatively safer for schoolgirls compared to traversing the path to and from school. Other students and parents also perpetrate violence in school groups and outside.

[113] MoWCYA. Assessment of Conditions of Violence Against Women in Ethiopia, p.35
[114] Ibid.
[115] Ibid., p.77
[116] Ibid.
[117] Ibid., p.76
[118] Ibid. p.43

Table 5: Perceptions of the Prevalence of the Different Types of Violence in School by Teachers, Parents, and Students (%)

	In School			To and from School		
Type of violence and abuse	**Students**	**Teachers**	**Parents**	**Students**	**Teachers**	**Parents**
Beating	37	30	51	53	74	63
Snatching of property	16	37	23	20	52	40
Verbal insult	48	63	54	57	81	74
Deprivation of liberty	21	38	27	31	67	43
Threat of harm	23	45	34	35	68	54
Humiliation	28	50	42	32	69	58
Name calling	29	48	45	36	59	56
Demanding money	11	24	24	12	45	32
Sexual coercion	11	23	24	25	60	49
Sexual harassment	23	46	33	37	73	54
Abduction	7	17	10	15	45	24

Source: Federal Republic of Ethiopia Ministry of Women Children and Youth Affairs. November 2013. "Assessment of Conditions of Violence Against Women in Ethiopia: Final Report," p.43

Secondary school female students also faced ridicule and abuse, with 55.6% of respondents stating that male students are the primary perpetrators of violence against them. In particular, they reported harassment during their monthly menstrual cycle, which in turn leads many girls to skip classes during this time or to remain in class during recesses in order to avoid boys.[119] This problem for female students was compounded by the fact that their schools do not provide proper sanitary facilities.[120] Physical violence also abounded; as one example, and occurring most frequently, boys declared their love for girls and proceeded to beat them if their feeling was not returned.[121] Although boys tended to be the main violators of secondary female students, male teachers were also culprits, with 51.4% of the respondents accusing them of humiliating female students in class and soliciting sexual favors in exchange for good grades.[122]

In higher education, too, violence against female students persists. For instance, 50% of female respondents in MoWCYA's 2013 study reported that they had personally experienced violence,

[119] MoWCYA. Assessment of Conditions of Violence Against Women in Ethiopia, p.51
[120] Ibid.
[121] Ibid., p.50
[122] Ibid., p.52

including sexual violence.[123] Male teachers also solicited sexual favors from female students, but female students felt like there was no recourse available to them to seek justice because of a hostile administration.[124] Consequently, female students reported no longer going to libraries, laboratories, study spaces, and entertainment spaces, impacting their ability to fully participate in the knowledge society.[125]

Time Use/Workload

Like their contemporaries around the world, Ethiopian women expend more time than men in providing uncompensated labor both inside and outside the home. The 2013 Ethiopian Time Use Survey (ETUS), the first-ever such survey undertaken in the country, found major gender differences in average time spent on productive and non-productive activities and on paid and unpaid work.[126] Women spent a disproportionate amount of their time on work that was not compensated, while men tended to get paid more for their productive work.[127] Both men and women in rural areas had higher participation rates in time spent in earnings- related activities due to agricultural work (78% and 79% respectively).[128] Women involved in earnings- related activities, however, were more likely to work fewer hours.[129]

Table 6 below shows that 89% of urban women and 94% of rural women were involved in extended earnings- related activities, spending an average of about 5 and 6 hours, respectively. Only 47% of urban men and 59% of rural men were involved in extended earnings-related activities. Similarly, 79% of urban and 85% of rural girls aged 10–17 were involved in extended earnings-related activities, compared to 48% of urban and 56% of rural boys aged 10–17. Although rural girls and boys spent similar hours in extended earnings-related activities, on average urban girls spent 1.5 hours more than urban boys in extended earnings-related activities.

[123] Ibid., p.47
[124] Ibid., p.40
[125] Ibid.
[126] The Federal Democratic Republic of Ethiopia Central Statistical Agency. December 2014. "Ethiopia Time Use Survey 2013: How Women and Men Spend Their Time"
[127] Ibid. p. 78
[128] CSA. "Ethiopia Time Use Survey 2013," p.iii
[129] Ibid., p.44

Table 6: Time Spent on Earnings and Learning-Related Activities

Activity	Urban				Rural				National			
	Men 18+	**Women 18+**	**Girls 10–17**	**Boys 10–17**	**Men 18+**	**Women 18+**	**Girls 10–17**	**Boys 10–17**	**Men 18+**	**Women 18+**	**Girls 10–17**	**Boys 10–17**
Earnings-related activities (SNA)	74% [500]	60% [340]	45% [188]	49% [268]	78% [395]	79% [264]	82% [244]	77% [335]	77% [418]	74% [278]	74% [236]	72% [327]
Extended earnings-related activities	47% [144]	89% [299]	79% [220]	48% [127]	59% [243]	94% [354]	85% [250]	56% [242]	56% [224]	93% [342]	84% [244]	55% [224]
Learning	15% [425]	12% [367]	74% [448]	67% [464]	5% [316]	2% [323]	44% [371]	42% [368]	7% [367]	5% [349]	49% [393]	48% [394]
Non-Productive/ Leisure	100% [938]	100% [927]	100% [879]	100% [905]	100% [971]	100% [891]	100% [864]	100% [891]	100% [963]	100% [899]	100% [867]	100% [893]

Source: The Federal Democratic Republic of Ethiopia Central Statistical Agency, "Ethiopia Time Use Survey 2013," p.43

The study further found that in both urban and rural areas, women have tremendous domestic workloads. In 80% and 70% of urban households, women were solely in charge of water and firewood collection and rural women carried out 78% of water and 81% of firewood collection.[130] All domestic work fell heavily on women in both urban and rural contexts, although more urban men (20%) shared domestic responsibilities than rural men (10%).[131] In every age group, females engaged in more caregiving services to household members than men, with most of the caregiving focused on children. Of those involved in caregiving activities, about 90% of men and 95% of women across different socioeconomic ranges spent time taking care of children, whereas only about 2% of men and women were involved in caring for adult household members.[132] Married women spent about 1.5 hours per day more than men in caregiving activity as well, with 45% of married women involved in caregiving and spending about 3.6 hours per day, compared to 21% of married men, who spent 2 hours.[133] Similarly, unpaid community services also fell more heavily on women.[134] Usually men are more responsible for services outside the residential home, including community services. However, time in unpaid community services for women tended to decrease as levels of education and employment increase, although to a lesser extent than it did for more educated men.[135]

These gender imbalances have great significance for women's and girls' access to and participation in knowledge systems, leaving them little time to pursue education and seek out

[130] Ibid., p.31
[131] Ibid.
[132] Ibid., p.69
[133] CSA. "Ethiopia Time Use Survey 2013" p.67
[134] Ibid. p.69
[135] Ibid.

information to advance their skills and pursue better opportunities. In both urban and rural areas, women and girls expended less time on learning activities and on non-productive/leisure activities, although urban women spend more time in such activities than their rural counterparts.[136] Men in both rural and urban settings had more time to consult information sources and media and had more leisure-time activities such as recreation, cultural events, and sport activities.[137] In urban settings, 54% of men compared to 48% of urban women spent time utilizing mass media while in rural areas, where overall participation rates of mass media use were much lower, gender disparities persisted, with a 9% rate for men and 4% for women.[138] Hence, directly or indirectly, the limitation on women's times prevents them from being workers, informed decision-makers, and innovators in knowledge societies.

[136] Ibid., p.iii-p.iv
[137] Ibid., p.iv
[138] Ibid., p.72

Dimension 4: Economic Status

Economic status is an important factor that affects women's ability to partake in a knowledge society.[139] Concentration in low-level employment, exclusion from economic sectors that provide higher income, an inability to secure sustainable work, and the unavailability of work that provides opportunities for improving professional skills combine to keep women from fully participating in fields such as science and technology. Thus, it is imperative to assess women's economic participation rates, their presence in various sectors of the economy, their earned income ratios compared to those of men, and their concentration in the formal versus the informal sectors, in self-employment, in part-time versus full time work, and so on.[140]

Women's Share Among the Economically Active Population

Ethiopian women have one of the highest rates of economic participation in the world. According to the Global Competitiveness Index, in 2014–15 the country ranked 33rd out 144 countries for the percentage of women in the labor force, a rate higher than those of women in many advanced economies, such as Singapore (76th), Germany (45th), the Netherlands (37th), and the United States (49th).[141]

While overall the countrywide female economic participation in Ethiopia is high, it is still lower than that of men's. In 2014, for instance, the female labor force participation rate for those age 15 and older was 78.2%, compared to 89.3% for men.[142] Furthermore, women are far more likely to be employed in the informal sector while men have higher rates of participation in the formal sector. The 2013 National Labor Force Survey showed, for example, that in urban areas, males 10 years and older participated in formal jobs at 80.2%, compared to the female participation rate at 62.4%.[143] Conversely, a higher percentage of females for that demographic were in informal jobs (36.5%), compared to 18.1% for males.[144]

Unemployment also afflicts women at a higher rate. In 2013, the unemployment rate for all age groups nationally stood at 16.5%, where the unemployment rate for males was lower than the national average, at 10.5%, but female unemployment was much higher than the national number: 23%.[145] Young women are particularly hard hit by unemployment. Women between ages 20–24 had the highest unemployment rate, at 30.2%, compared to men of that age category, whose unemployment rate was 20.4%[146] As Table 7 below shows, in all age groups and

[139] Huyer and Hafkin. *Engendering the Knowledge Society*, p.81
[140] Ibid.
[141] World Economic Forum. "Global Competitiveness Index 2014-15." http://reports.weforum.org/global-competitiveness-report-2014-2015/economies/#indexId=GCI&economy=ETH
[142] UNDP. "Human Development Indicators."
[143] The Federal Democratic Republic of Ethiopia Central Statistical Agency (CSA). "2013 National Labor Force Survey," p.76
[144] Ibid.
[145] CSA. "2013 National Labor Force Survey," p.85
[146] Ibid.

especially during the reproductive years 20–44 in 2013, women were unemployed at double or higher rates than men. Unemployment rate for women between ages 25 and 30, for instance, is 24.2%, compared to men's 10.4%. In turn, the effect of women's preclusion from the labor force during childbearing and rearing years reverberates in later years, where their unemployment rates continue to be much higher than their male counterparts.

Table 7: Unemployment Rate by Age Group and Sex, Country Total 2013

Age group	Male	Female
20–24	20.4%	30.2%
25–29	10.4	24.2
30–34	6.4	23.4
35–39	5.9	20.2
40–44	5.7	20.1
45–49	4.8	18.0
50–54	4.4	19.5
55–59	7.0	17.8
60–64	9.4	18.7
65+	8.5	14.4

Source: The Federal Democratic Republic of Ethiopia Central Statistical Agency. June 2014. "Analytic Report on the 2013 National Labor Force Survey," p.85

The 2013 Ethiopian Time Use Survey, which tracked the percentage of males and females above the age of 10 participating in various economic activities, also found that urban women (31%) were likely to be more unemployed compared to urban men (21%) as well as men and women in rural areas (15%).[147] While all groups cited schooling as the primary reason for not working, approximately 60% of urban and 52% of rural men did not work because of their studies, compared to 36% of urban and 27% of rural females who did not work because they were students.[148] Additionally, girls and women were unemployed due to heavy domestic duties and pregnancy.[149]

Earned Income Ratios

In all employment sectors, males in Ethiopia are paid more than females. As Table 8 from the 2013 National Labor Force Survey shows, with the exception of the electricity & gas stream and air conditioning supply sector, which had the smallest gender gap in mean monthly payments, all

[147] CSA. "Ethiopia Time Use Survey 2013," p.27
[148] Ibid.
[149] Ibid.

other sectors show a gender discrepancy in earnings. In all categories, males earned above the total average and women earned less than the average monthly wage. In fields such as information technology, for instance, average monthly male earnings outpaced women's by 671 birr. Similarly, women's average monthly income in professional scientific and technical activities was lower than men's: the former earn on average a monthly income of 1960 birr as compared to men's 2466 birr. The pattern of a gender wage gap in the science and technology fields reflects the overall trend of women's employment disadvantage across the economy, a trend that holds across the highest paying fields like financial services and IT and scientific fields, as well as the lowest paying jobs such as agricultural and food services sectors.

Table 8: Earned Income by Industry

Major Industrial Divisions and Sex	**All Persons**	**Annual Monthly Payment (in Birr)**
Total Paid Employed Population		
Total		1305
Male	2,730,028	1,471
Female	1,522,573	1,008
Agriculture Forestry and Fishing		
Total		697
Male	547, 825	733
Female	142,237	561
Mining and Quarrying		
Total		1,200
Male	35,078	1,379
Female	13,607	731
Electricity Gas Stream and Air		
Total		1,644
Male	21,913	1,650
Female	3,331	1,602
Water Supply, Sewage Management, and Remediation Activities		
Total		1,309
Male	28,856	1,446
Female	16,055	1,063
Construction		

Major Industrial Divisions and Sex	All Persons	Annual Monthly Payment (in Birr)
Total		1,381
Male	350,765	1,517
Female	103,290	920
Wholesale and Retail Trade; Motor Vehicle Repair		
Total		984
Male	97,371	1,134
Female	81,968	804
Transportation and Storage		
Total		1,781
Male	168,377	1,812
Female	21,497	1,545
Accommodation and Food Service Activities		
Total		612
Male	29,303	807
Female	20,649	501
Information and Communication		
Total		2,114
Male	29,305	2,391
Female	20,649	1,720
Financial and Insurance Activities		
Total		2,380
Male	77,387	2,632
Female	48,867	1,982
Real Estate Activities		
Total		1,527
Male	1,247	1,636
Female	700	1,332
Professional Scientific and Technical Activities		
Total		2,299
Male	84,116	2,466
Female	41,014	1,960
Administrative and Support Service Activities		
Total		1,751

Major Industrial Divisions and Sex	All Persons	Annual Monthly Payment (in Birr)
Male	78,764	1,960
Female	45,532	1,389
Public Administration and Defense Compulsory		
Total		1,689
Male	204,121	1,804
Female	83,248	1,407
Education		
Total		1,623
Male	418,833	1,751
Female	254,137	1,413
Human Health and Social Work Activities		
Total		1,695
Male	95,843	2,160
Female	126,375	1,348
Arts Entertainment and Recreation		
Total		1,622
Male	17,137	1,870
Female	7,773	1,069

Source: Compiled from The Federal Democratic Republic of Ethiopia Central Statistical Agency. June 2014. "Analytic Report on the 2013 National Labor Force Survey," pp. 71–72

A 2010 Population Council and UNFP study shed further light on women's income pattern in seven regions. It found that aside from professionals and teachers, the highest source of income for Ethiopian women was sex work. As Table 9 below shows, on average women spent 43 hours on sex work, and they earned approximately $58 a month. By contrast, salespersons, office assistants, and messengers spent an average 51 hours and earned a mere $37 for the month. Other work also required more hours but generated less income. For instance, women in service work such as waitressing only earned $13 a month but had to work an average of 40 hours a week. The higher wage in lines of work such as sex work thus lures women into livelihoods that potentially endanger their health and safety, creates a disincentive to pursue other lines of professional or skilled work, and concentrates women in low skill and easy entry jobs.

Table 9: Earnings and Number of Hours Worked by Type of Work

Occupation	**Mean Earnings in the Last Month ($)**	**Mean Hours Worked in Last Week**
Waitress, waiter, barber	13	40
Domestic worker, cleaner, nanny, etc.	14	44
Construction, porter, daily laborer	17	33
Farmer, poultry keeper, etc.	19	27
Small scale food or drink production	20	31
Petty trade	22	34
Hairdresser, dressmaker, tailor	24	41
Trades (mechanic, carpenter, plumber, mason, electrician)	28	44
Salesperson, office assistant, messenger	37	51
Sex worker	58	43
Professional, teacher	69	38

Source: Population Council and UNFPA. "Ethiopia Gender Survey," p.21

Females by Category of Workers

While female labor force participation in Ethiopia is high, gender patterns by types of employment reveal that work associated with men and masculinity is often out of reach to women. For instance, Table 10 from the 2013 Ethiopian Time Use Survey (ETUS) shows that nationally, Ethiopian girls and women 10 years and older dominate elementary occupations (48.4% compared to men and boys' 27.4%) and service and sales work (12.5% compared to men's 7.0%). While skilled agricultural, forestry, and fishery workers account for a large percentage of both male and female employment, men dominate employment in such fields, accounting for 52.8%. Given the fact that most Ethiopians reside in rural areas and that one of the most important development foci of the country is agricultural growth, the gendered employment discrepancy in this field suggests that women are not equal beneficiaries in the largest economic sector.

Table 10: Percentage of Males and Females Ten Years and Older, by Occupation

Major Occupational Groups	Male	Female
Managers	0.8	0.3
Professionals	2.3	1.1
Technicians and Associate Professionals	1.9	1.2
Clerical Support Workers	0.4	0.7
Service and Sales Workers	7.0	12.5
Skilled Agricultural, Forestry, and Fishery Workers	52.8	28.1
Craft and Related Trades Workers	5.5	7.4
Plant, Machine Operators, and Assemblers	1.7	0.2
Elementary Occupations	27.4	48.4
Other Occupations	0.1	0.0
Not Stated	0.1	0.1

Source: The Federal Democratic Republic of Ethiopia Central Statistical Agency, "Ethiopia Time Use Survey 2013," p.25

The ETUS also revealed gender variations in the type of work done in rural or urban settings. As Table 11 shows, urban men and women participated in service and sales, one of the largest economic sectors in the country, at a much higher rate than both rural men and women. However, urban women tend to be more concentrated in this sector (39.5%) as compared to men (22.9%). There are also inequities between men and women in rural areas; for instance, the percentage of men in skilled agricultural, forestry, and fishery is almost double that of women's, with 61.9 % of the former found in this field compared to 32.1% of their female counterparts.

Table 11: Percentage of Males and Females in Major Occupational Groups in Service and Sales Sectors

Occupation	Urban		Rural	
	Male	Female	Male	Female
Managers	3.5	1.7	0.3	0.1
Professionals	9.8	5.1	0.7	0.3
Technicians and Associate Professionals	7.3	5.4	0.8	0.4
Clerical Support Workers	2.1	3.9	0.1	0.1
Service and Sales Workers	22.9	39.5	3.5	7.4

Skilled Agricultural, Forestry, and Fishery Workers	10.6	6.7	61.9	32.1
Craft and Related Trades Workers	14.0	11.9	3.6	6.5
Plant, Machine Operators, and Assemblers	7.7	0.8	0.4	0.1
Elementary Occupations	21.6	24.9	28.6	52.8
Other Occupations	0.1	0.0	0.0	0.0
Not Stated	0.3	0.1	0.1	0.1

Source: The Federal Democratic Republic of Ethiopia Central Statistical Agency, "Ethiopia Time Use Survey 2013," p. 25

Overall, women tend to provide unpaid family labor much more than men, although rural women are at a particular disadvantage. Half of urban women and two-thirds of rural women in the ETUS survey were self-employed or unpaid workers, with rural women reporting an even higher level of labor expenditure in household-related activities.[150] Men in both urban and rural contexts engaged in such activities far less frequently than women; for instance, while 36% of employed men and women in urban areas are self-employed, 20% of women compared to 11% of men perform unpaid family work.[151]

Similarly, a 2010 gender survey conducted among 8,000 women ages 15–49 in seven regions by the Population Council found that only 36% of the women surveyed had ever worked for pay.[152] Urban women fared better than their rural counterparts (45% and 30% respectively) in terms of remuneration for their labor.[153] Regional variations also existed: 67% of women in Tigray, 54% Addis Ababa, and 43% in Oromiya and Afar had worked for pay.[154]

[150]CSA. "Ethiopia Time Use Survey 2013," p.26
[151] Ibid.
[152] Population Council and UNFPA. 2010. "Ethiopia Gender Survey: A Study in Seven Regions," p.19. http://www.popcouncil.org/uploads/pdfs/2010PGY_EthiopiaGenderSurvey.pdf
[153] Ibid.
[154] Ibid.

Dimension 5: Access to Resources

Access to resources is one of the key indicators of women's participation in the knowledge society. While women's access to Internet and cell phones is a clear indication of their ability to participate in the knowledge society, their capacity to utilize such technologies is closely intertwined with their ability to access other resources including: housing, land, personal effects, credit and savings services, transportation, and electricity.[155] Women's access to resources is also linked to their ability to earn income, which in turn allows them to become entrepreneurs and drivers of the knowledge society.

Ownership of Land, Houses, and Other Property

Ethiopian women are on the margins of property and asset ownership. The Ethiopian Demographic and Health Survey of 2011 (2011 DHS) found that overall, women owned property at a lower rate than men. For instance, for those between 15 and 49 years old, roughly 27% of men own a house or land alone and jointly compared to roughly 13% of women.[156] Urban and rural women also showed variations in the type of assets they own with 60% of rural women having land compared to 18% of urban ones. Rural women also owned homes more frequently, with 66% owning homes solely or jointly compared to 30% of their urban counterparts.

A 2010 study by the Population Council and UNFPA also provides a glimpse into patterns of female property ownership in seven regions.[157] As Table 12 shows, 95.8% of rural women owned their own place compared to 45.8% of urban women. The survey also shows that urban women tended to rely on the state for housing, mainly renting their homes from *kebeles* (government-organized neighborhood associations) and from private renters.

Table 12: Percentage of Urban and Rural Females Who Own/ Rent Their Homes

Characteristic	**Urban (n=3,242)**	**Rural (n=5,134)**	**All (n=8,376)**
Own Residence	45.8	95.8	76.0
Rent from Kebele	16.5	0.1	6.6
Rent from Private Owner	32.2	1.3	13.6
Other (includes provided by relatives or employers)	5.5	2.8	3.8

[155] Huyer and Hafkin, *Engendering the Knowledge Society*, p.81
[156] The Federal Democratic Republic of Ethiopia Central Statistical Agency (CSA). March 2012. "Ethiopia Demographic and Health Survey 2011 (2011 DHS)." (Addis Ababa, Ethiopia ICF International Calverton, Maryland, USA), p.252
[157] Population Council et al., ""Ethiopia Gender Survey"

Source: Population Council and UNFPA. "Ethiopia Gender Survey," p.8

Despite the fact that urban women are less likely to own property than rural women, the former tend to have access to other resources, such as toilets in their residential facilities. As Table13 shows, 5.3% of urban women compared to 0.3% of rural women had access to private flush toilets. Rural women, on the other hand, had greater access to private pit latrines (42.7%) than urban women, who have to share pit latrines with others (44.1%). By contrast, 52.1% of rural women have to use fields and forests as toilet facilities, compared to only 11.8% of urban women. Thus, despite rural women's higher likelihood of home ownership, their access to sanitation facilities was lower.

Table 13: Toilet Facilities in Domiciles

Type of Toilet/Latrine	**Urban (n=3,242)**	**Rural (n=5,134)**	**All (n=8,376)**
Improved	*87.7*	*47.7*	*63.6*
Flush Toilet, Private	5.3	0.3	2.3
Flush Toilet, Shared	1.6	0.1	0.7
Pit Latrine, Private	36.2	42.7	40.1
Pit Latrine, Shared	44.1	4.5	20.3
Other (includes e.g. office, school, and neighbors' toilet)	0.5	0.2	0.3
Non-Improved Source	*12.3*	*52.3*	*36.4*
Container (from household)	0.5	0.2	0.3
Field or Forest	11.8	52.1	36.1

Source: Population Council and UNFPA "Ethiopia Gender Survey," p.10

While rural women have better chances of home ownership than urban ones, the latter have a higher likelihood of owning personal effects. The 2013 Ethiopian Time Use Survey (ETUS) found that overall women in urban households had more access to timesaving appliances than rural women, affording the former more time to spend on commuting and communications.[158] Women in urban households also had higher levels of ownership of personal effects than women in rural households.[159] Furthermore, women in 90% of rural households cooked with firewood, compared to 56% of women in urban households.[160] Despite faring better than rural women,

[158] CSA. "Ethiopia Time Use Survey 2013," p.32
[159] Ibid. p.9
[160] Ibid., p.32

urban women still had limited ownership of personal effects: only 17% owned refrigerators, 14% electrical stoves, and less than 5% owned cars or computers/Internet in the home.[161]

The control of assets was also gendered, with women in both rural and urban settings exercising more control over small-scale assets while men exerted control over vehicles and farm equipment.[162] More specifically, women controlled decisions over vehicles and farm equipment in less than 20% of urban and rural households, with the remainder of households having joint ownership or men controlling these assets.[163] However, urban areas showed more equity between male and female ownership of assets and resources.[164]

Women's Access to Credit, Loans, and Venture Capital

The Growth and Transformation Plan expressly aimed to bolster access to saving and credit services, viewing access to financial resources as a way to integrate women into the country's development plan.[165] There are new efforts underway to extend credit to women, to bolster their savings, and to provide loans for small business development. The gains are modest, however. The 2010 Population Council and UNFPA survey of women in seven regions found, for instance, that only 5% of urban respondents and 6% of rural respondents had received small amounts of credit to start or expand businesses and that an overwhelming majority (81%) felt that credit had improved their lives.[166] In 12% of the cases, people other than the women who received the loan used the money, with borrowed funds misused primarily by spouses (54%).[167] Most of the women reported making timely payments, however, with only 5% reporting defaults.[168]

Ethiopian women's savings are also quite low. The Population Council study found that only 14% of urban women and 8% of rural women had saved money for emergencies and other use, with urban women saving more than their rural counterparts.[169] There are encouraging signs that savings among women as well as among the general population are on the rise, however. In the past two years, the government has been prompting bank savings, by providing incentives such as cars and other winnings on radio and television, although official sex-disaggregated data does not yet exist.

[161] Ibid.
[162] Ibid., p.33
[163] Ibid.
[164] Ibid.
[165] MoFED. "Growth and Transformation Plan," p.71
[166] Population Council et al., ""Ethiopia Gender Survey," p.22
[167] Ibid
[168] Ibid.
[169] Ibid., p.23

Share of Women Using Internet and Cell Phones

The country's telecommunication services are inefficient and lack a skilled workforce.[170] Studies in the period prior to 2012 showed that Ethiopia had one of the lowest ICT penetrations in Africa. Nonetheless, the government has impressive policy positions on ensuring women's full participation in the ICT center. For instance, the national ICT policy of Ethiopia explicitly states that it "supports the development of ICT systems and programs that enhance the participation of women and the disabled."[171] Although, a 2008 survey undertaken by RIA of ICT access and use across 17 African countries including Ethiopia shows that Ethiopian women's use of mobile phones lagged behind that of men,[172] in the last 3 years, Ethiopia's mobile use including the share of female users has grown exponentially. Data from Ethio Telecom, the state-owned sole provider of phones and Internet, shows that the total number of mobile subscribers in Ethiopia has now exceeded 40 million and between August 2014 and March 2015, the period for which sex-disaggregated data was tracked, 20% of the half million new subscribers were women.[173]

Questions of gender equity in terms of use and access remain unclear, however. According to findings from RIA's 2012 study, use and access issues were significant areas in which women were at a distinct disadvantage.[174] The higher the income and education levels of women, the higher women's adoption of mobile phones became.[175] The study further found that in Ethiopia, being a woman held a statistically significant negative coefficient to mobile phone adoption, a finding that did not hold true for married men.[176] Thus, being female and married in Ethiopia are important factors that have an impact on the access to and use of mobile phones. The RIA study shows that mobile phone ownership and Internet use are also positively correlated with education, and that Ethiopia lags behind most of the other countries in terms of education level attained, which in turn affects the low level of ICT use.[177] As the study noted, women's access to and use of ICTs such as mobile phones "can increase one's chances of gaining a higher level of education." Thus, boosting Ethiopian use of ICTs can "improve [their] education level," and hence mitigate the effects of being disadvantaged due to being female in Ethiopia.[178]

Ethiopian women's patterns of Internet use are not well understood although some data suggests that women and men use the Internet differently. For instance, RIA's 2007-2008 study found that although both men and women were very low users of the Internet in Ethiopia in general, of those 15 years or older who were using the Internet, only 1.1% of Internet users were women as

[170] Adam, Lishan. 2012. "Understanding what is happening in ICT in Ethiopia: A Supply- and Demand-Side Analysis of the ICT Sector"
[171] Federal Democratic Republic of Ethiopia. "The Ethiopian National Information and Communication Technology (ICT) Policy." www.eictda.gov.et/Downloads/Policies/ICT_Policy_English.pdf
[172] Deen-Swarray, Mariama, Alison Gillwald and Ashleigh Morrell. 2012. "Lifting the Veil on ICT Gender Indicators in Africa." Research ICT Africa and University of Cape Town, p. 29
[173] Ibid.
[174] Deen-Swarray et. al. "Lifting the Veil on ICT Gender Indicators in Africa," p.25
[175] Ibid., p.27
[176] Ibid.
[177] Ibid., p.20
[178] Ibid., p.21

compared to 3.9% of men 16 and over.[179] Furthermore, 74% of Ethiopian male Internet users vs. 34.7% of female Internet users first accessed the Internet on their mobile phones, and more women (65.3%) than men (26%) accessed the Internet from a computer.[180] While these findings raise important questions about access to both mobile phones and Internet, they need updating in light of the recent explosion of mobile phone subscriptions in Ethiopia as well as the growing number of women mobile users, which have opened up new ways for women to access and use the Internet. Latest data, however, on Ethiopia as a whole shows a low level of Internet access via mobile phones, with 80% of its mobile phones unable to connect to the Internet, [181]thus limiting their usefulness in a knowledge society.

The lack of consistent sex-disaggregated data is a major obstacle that prevents accurate and recent knowledge of female mobile owners and their use patterns. As the director of Ethio Telecom's Gender Bureau notes, "gender disaggregation is the biggest hurdle to understanding and expanding female participation in ICT and in all development projects in the country. In every government ministry and other policy meeting, we have to scream 'gender disaggregated data.'"[182] The director, a well-respected former guerrilla fighter and a powerful figure in Ethiopian politics, acknowledges that her political stature usually ends up pushing the agency to disaggregate its user data, but even her advocacy does not guarantee institutionalization of data disaggregation by gender. As she recalls, "even at our department meeting, it is when I look at the sign up sheets and insist on disaggregating even the attendance list that people remember. It is not until they see my face that they remember to track gender specific data. We will have to continue raising the issue of sex-disaggregated data until it becomes second nature like washing one's face in the morning."[183]

Use by Women of Railroads and Other Transportation Infrastructure

There is no sex-disaggregated data available in Ethiopia for this indicator.

Access of Women to Electricity

Although official sex-disaggregated data regarding women's access to electricity is scarce, some studies shed light on women's pattern of electricity use. For instance, The 2013 ETUS found that both urban and rural areas have limited access to energy sources and that women bear the overwhelming burden of domestic responsibilities, including the gathering of energy sources such as firewood.[184] Consequently, the lack of access to resources such as energy and water has implications for women's lives, including how they use their time. Rural women were at a distinct disadvantage: while 90% of urban households used electricity, only 8% of rural households did so. Thus, women in rural households had to rely on other energy sources: in 53%

[179] Ibid., p.32
[180] Ibid., p.33
[181] The World Bank, World Development Report 2016, http://www.worldbank.org/en/publication/wdr2016.
[182] Wzo. Yalemzewd. Gender Bureau Director, Ethio Telecom. Personal Communication. June 2015
[183] Ibid.
[184] CSA. Ethiopia Time Use Survey 2013, p.31

of rural households, kerosene, torches, wood, and dung were the main sources of lighting.[185] While both rural and urban women relied on wood for cooking, the latter had access to other sources of fuel such as charcoal (25%), electricity (13%), and even kerosene (6%), while rural women relied mostly (almost 90%) on firewood for food preparation.[186]

The Population Council Ethiopia Gender Survey also revealed some hard realities about women's access to energy sources. The study, like the ETUS, found that most women who are responsible for the household cooking did not use electricity for meal preparation. As Table 14 shows, fewer than 1% of the women surveyed overall used electricity for cooking. This low reliance on electricity for cooking held true even for urban women, only 0.9% of whom cooked with electricity.

Table 14: Energy Sources for Cooking in Urban and Rural Areas

Main Type of Cooking Fuel	Urban (n=3,241)	Rural (n=5,140)	All (n=8,381)
Collected Firewood	14.1	78.6	53.0
Purchased Firewood	38.2	5.0	18.2
Charcoal	23.0	0.4	9.9
Leaves/Dung Cakes	1.5	13.5	8.7
Kerosene	15.5	0.1	6.2
Butane	6.5	0.0	2.6
Electricity	0.9	0.2	0.5
Other	0.3	2.1	1.4

Source: Population Council and UNFPA, "Ethiopia Gender Survey," p.10

[185] Ibid.
[186] Ibid.

Dimension 6: Women's Agency

The extent to which women exercise the freedom to make decisions in their homes and professional lives as well as in their society's political process is an important indicator of their overall ability to be participants and beneficiaries of the knowledge economy.[187] Thus, women's presence in political office at the local and national levels is an important variable in assessing their agency in political processes, policy formulation, and resource allocation. Women's ability to make decisions about their bodies, including their ability to determine whether to have children and how many children to birth without duress, is also an important indicator of their ability to exert themselves freely in the knowledge.[188]

Women in Government

Over the past decade, female political participation in Ethiopia has been rising, although there remains a gap between male and female participation rates. In 2015, the country held its fifth round of general elections, in which over 90% of the 36.8 million registered voters participated in the parliamentary elections.[189] Out of the 5,819 candidates who ran for office, 21.8% (1,270) were women, although this figure is not the final number of seats women won, which the National Election Board has not yet made available.[190]

Table 15 below shows the gender breakdown of the fourth election cycle at the level of the House of People's Representatives of the Ethiopian Peoples' Revolutionary Democratic Front (EPRDF), the leading political party. Women representatives made up 29.8% overall and in the Tigray, Amhara, and Addis Ababa regions, female political representation surpassed 30%. Other political parties had no seats held by women.

[187] Huyer and Hafkin. 2007. *Engendering the Knowledge Society*, p.81
[188] Ibid., p.82
[189]Winsor, Morgan. "Ethiopia Elections 2015: Ruling Party Declares Historic 100 Percent Victory In Parliamentary Polls," *International Business Times*. June 23, 2015. http://www.ibtimes.com/ethiopia-elections-2015-ruling-party-declares-historic-100-percent-victory-1979220
[190] National Electoral Board of Ethiopia. 2015. "General Election Political parties Candidatures." http://www.electionethiopia.org/en/)

Table 15: Dispersion of Seats Among Political Parties Having Representations in the Fourth House of Peoples' Representatives

Number	Name of Parties	Dispersion of Seats in the HPR			
		F	M	Total Seats	Total % Women
EPRDF Members					
1	TPLF-EPRDF Tigray People Seats in the HPRR	13	25	38	34.2
2	ANDM Amhara National Democratic Movement	46	92	138	33.3
3	OPDO Oromo People's Democratic Organization	47	131	178	26.4
4	SEPDM South Ethiopian Peoples Democratic Movement	36	87	122	29.5
5	Addis Ababa	7	15	22	31.8
6	Dire Dawa	-	2	2	0
	Seats of EPRDF	149	351	500	29.8
Non-EPRDF Parties					
7	BGPDUF Benishangul-Gumuz People's Democratic Unity Front	2	7	9	22.2
8	APDP Afar People's Democratic Party	1	7	8	12.5
9	GPDM Gambella People's Democratic Movement	-	3	3	0
10	Somali People Democratic Party	-	23	23	0
11	HNL Harari National League	-	2	2	0
12	Private	-	1	1	0
13	E.P.D. Unity Forum Ethiopian People's Democratic Unity Forum	-	1	1	0
	Total EPRDF and Non-EPRDF	152	395	547	27.8

Source: Compiled from National Electoral Board of Ethiopia data

Despite the increase in women's political participation, one must not overlook ongoing obstacles women face in their ability to participate in Ethiopia's political process. The present government, which has been in power since 1991, was the sole winner of every seat in the 2015 election,

raising questions about the extent of democratic political participation in the country, especially for women. For instance, in January 2009, the government enacted the Charities and Societies Proclamation No. 621/2009 of Ethiopia (Civil Society Law or CSO law), which prohibits foreign non-governmental organizations (NGOs) from engaging in advocacy in the fields of human rights, women' s rights, children's rights, disability rights, citizenship rights, conflict resolution, or democratic governance. It also affects local NGOs that receive more than 10% of their funding from foreign sources, deeming them foreign NGOs. This law has crippled Ethiopian women's groups in the country that have relied on external funds to carry out advocacy on behalf of women.[191]

Fertility Rates and Contraceptive Use

The Ethiopian government's aim has been to reduce the average number of children borne to a woman to 4.0 by 2015.[192] In 2014, the average number of children per woman had decreased to 4.1, a drop from 4.8 children in 2011 and 5.4 in 2005.[193] The drop is observed in both urban and rural regions: in the last decade, rural women's average number of children has decreased from 7.0 to 4.6, while that of urban women has decreased from 5.2 to 2.3 children.[194]

Despite these promising trends, there are significant differences in women's fertility rates across income and education levels, administrative regions, and between urban and rural women. For instance, between 2000 and 2011, fertility rates in the Somali, Afar, and Benishangul-Gumuz regions increased by 39%, 14%, and 4%, respectively.[195] For the same time frame, fertility rates dropped in the Amhara region by 24%, in Addis Ababa by 17%, and in SNNP and Tigray by 13% each.[196] In 2014, these variations still held true; women in Addis Ababa had an average of 1.7 children, while women in the Somali region had 6.4 children.[197] Moreover, despite the significant decreases in Tigray, Oromiya, and SNNP, these regions along with Afar and Benishangul-Gumuz still had fertility rates higher than the national average.[198]

Fertility patterns in Ethiopia correspond to education level, with educated women, particularly those with a secondary education or higher, having fewer children (2 per woman) than women who have no education (5 children per woman).[199] Similarly, women in the highest wealth quintile had fewer children. In this group, women had 2.5 children on average, compared to those in the lowest quintile, who bore an average of 5.4 children.[200]

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[191] Center for International Human Rights. November 2009. "Sounding the Horn: Ethiopia's Civil Society Law Threatens Human Rights Defenders." Northwestern University School of Law.
[192] Teklu Hailemariam, Alula Sebhatu, Tesfayi Gebreselassie. August 2013. "Components of Fertility Change in Ethiopia: Further Analysis of the 2000, 2005, and 2011 Demographic and Health Surveys," p.18
[193] CSA. "Mini DHS of 2014," p.27
[194] Ibid., p.30
[195] Teklu et al. "Components of Fertility Change in Ethiopia," p.9
[196] Ibid.
[197] CSA. "Mini DHS of 2014," p.29
[198] Ibid.
[199] Ibid.
[200] Ibid.

The decline in fertility rates is largely due to the dissemination of contraceptives throughout the country. According to survey results from the Mini DHS of 2014, awareness of contraceptive methods between 2000 and 2014 has grown steadily among Ethiopian women and particularly among married women, 97% of whom report awareness.[201] Actual use of contraceptives stood at 29% for all women but was higher among married women at 42%.[202] The government is the major provider of modern contraceptives, with 87% of users obtaining their method from the state and health centers and health extension workers.[203] The most common method for all women was injectables, although the use of other forms of birth control, such as IUDs and implants increased to 43% and 11% respectively.[204] Disturbingly, women's awareness of male condom use plummeted by 6%.[205] Given Ethiopian women's higher vulnerability to HIV/AIDS infection, this drop in contraceptive methods that also help prevent STDs is an alarming trend that threatens to erode women's agency significantly.

Improved access to contraceptives decreases the number of unintended pregnancies for Ethiopian women. Nonetheless, in the event of unwanted pregnancy, Ethiopian women have limited recourse. Abortion is illegal in Ethiopia, with the exception of cases involving rape, incest, fetal or mother's life endangerment, and a minor or a woman disabled in such a way that it prevents her from caring for a child.[206] The lack of safe and legal abortion means that six in 10 abortions in Ethiopia are unsafe.[207]

[201] CSA. "Mini DHS of 2014," p.34
[202] Ibid.
[203] Ibid. p.39
[204] CSA. "Mini DHS of 2014," p.34
[205] Ibid
[206] Guttmacher Institute. "Facts on Unintended Pregnancy and Abortion in Ethiopia." https://www.guttmacher.org/pubs/FB-UP-Ethiopia.pdf
[207] Ibid.

Dimension 7: Opportunity and Capability

Whether or not women (and girls) can access opportunity and capability at the same rate as men (and boys) in a society has an impact on the their ability to fully benefit from and contribute to a knowledge society.[208] This indicator assesses factors such as girls and women's access to education and their ability to access job training so that they can upgrade their skills and continue to become lifelong learners. Poor literacy rates, high rates of school dropout, low rates of enrollment in higher education and especially in STEM fields, and limited access to on-the-job training are all factors that adversely affect their entry into knowledge economies and their ability to become agents of change and innovation.[209]

Literacy Rate

With a 41% literacy rate in 2014, Ethiopian women have one of the world's lowest literacy rates.[210] This statistic means fewer than half of women have the ability to read and write. Nonetheless, over the course of the last decade, the country has made strides in educating women between the ages of 15 and 19, where it achieved a 70% literacy rate by 2014.[211] It has been less successful in improving literacy among 45 and 49 year old women, however, whose literacy rate is a mere 18%.[212] Ethiopian women's literacy rate also varies by income level and depending on whether women live in urban or rural areas. The higher women's income, the higher their literacy rate; in 2013, the literacy rates for women in the wealthiest households was 72%, compared to 17% for women in the poorest households.[213] Women in urban areas also fare much better, as 71% are literate compared to 32% of rural women.

Across the board, women's literacy rates are lower than those of their male counterparts. Table 16 shows the proportion of urban dwellers aged ten and above for 2012. Even in areas with high rates of female literacy, like Addis Ababa (80%) and SNNP (76.5%), men's literacy exceeded women's by over 10 points. Men in Addis Ababa had a 93.2% literacy rate while SNNP men had a 90.7% rate. In some cases, however, women in urban regions had higher literacy rates than men of some regions and rural areas. For instance, women in Addis Ababa had a much higher literacy rate (80%) compared to both women and men in Afar (women 53.2% and men 73.9%) and Somali (women 47% and men 75.4%). Somali women were the most disadvantaged, with a literacy rate of less than 50%.

[208] Huyer and Hafkin, *Engendering the Knowledge Society*, p.82
[209] Ibid.
[210] CSA, "Mini DHS of 2014," p.24
[211] Ibid.
[212] Ibid.
[213] Ibid.

Table 16: Proportion of Urban Population Aged Ten Years and Above by Region, Sex, and Literacy Status

Region	Literacy Status					
	Literate			Illiterate		
	Total	Male	Female	Total	Male	Female
COUNTRY TOTAL	80.2	89.4	72.2	19.8	10.6	27.8
Tigray	79.6	90.8	71	20.4	9.2	29
Afar	63.1	73.9	53.2	36.9	26.1	46.8
Amhara	74.5	86.3	65.5	25.5	14.7	34.5
Oromiya	81	89.8	72.6	19	10.2	27.4
Somali	61.1	75.4	47	38.9	24.6	53
Benishangul-Gumuz	74.5	83	66.3	25.5	17	33.7
SNNP	83.4	90.7	76.5	16.6	9.3	23.5
Gambella	79.1	88.8	71	20.9	11.2	29
Harari	83.3	93.2	74.5	16.7	6.8	25.5
Addis Ababa	86.4	94.3	80	13.5	5.7	19.9
Dire Dawa	76.1	89	64.6	23.9	11	35.4

Source: Federal Democratic Republic of Ethiopia Central Statistical Agency. September 2012. "Analytic Report on the 2012 Urban Employment/Unemployment Survey," p.21

Net Primary, Secondary, and Tertiary Enrollments

Primary Education

Primary education in Ethiopia includes grades 1–8. Between 2008 and 2013, overall enrollment increased nationally by 2.9%.[214] As Table 17 shows, boys and girls' net enrollment rates have been converging in the last five years.

[214] The Federal Democratic Republic of Ethiopia Ministry of Education (MoE). "Education Statistics Annual Abstract 2012/13." p.28

Table 17: Net Enrollment at the Primary Level

Year	Boys	Girls	Total
2008–09	84.6	81.3	83.0
2009–10	83.7	80.5	82.1
2010–11	87.0	83.5	85.3
2011–12	86.8	89.9	85.4
2012–13	87.7	84.1	85.9

Source: Federal Republic of Ethiopia Ministry of Education, "Education Statistics Annual Abstract 2012/13," p.27

Despite the growth of female student enrollment, regional variations abound. As Table 18 shows, the female students in Tigray, Afar, and Amhara Dire Dawa exceeded that of boys.[215] In Oromiya, Somali, Benishangul-Gumuz, SNNP, Gambella, Harari, and Addis Ababa, male student enrollment was higher than that of girls. Girls' rates in Afar (44.9%), Oromiya (80.6%), Somali (80.8%), Harari (69.1%), and Addis Ababa (67.8%) were also below the national rate of 84.1%. Meanwhile, both boys and girls in Afar lagged behind all other regions.

Table 18: Net Enrollment Rate by Region and Sex

Region	Boys	Girls	Both
Tigray	91.0	93.1	92.0
Afar	38.9	44.9	41.5
Amhara	90.3	93.1	91.7
Oromiya	87.2	80.6	83.9
Somali	82.6	80.8	81.8
Benishangul-Gumuz	98.8	84.4	91.6
SNNP	92.8	84.9	88.9
Gambella	102.3	93.2	98.0
Harari	80.5	69.1	74.8
Addis Ababa	71.5	67.8	69.4
Dire Dawa	81.3	90.5	85.9
National	87.7	84.1	85.9

Source: Federal Republic of Ethiopia Ministry of Education, "Education Statistics Annual Abstract 2012/13," p.28

[215] Ibid.

The Gender Parity Index (GPI) measures male to female gross enrollment ratio (a situation of equality between boys and girls is equal to 1). In 2012–13, gender parity had not been achieved, even though enrollment of girls in primary schools had steadily increased.[216] Table 19 shows the GPI for all regions for primary level students. While the Amhara, Tigray, Addis Ababa, Somali, and Gambella regions were closing the gender gap in primary education, regions like Benishangul-Gumuz and Harari lagged far behind.

Table 19: Gender Parity Index by Region

Region	**GPI**
Tigray	0.99
Afar	1.10
Amhara	1.01
Oromiya	0.91
Somali	0.97
Benishangul-Gumuz	0.81
SNNP	0.90
Gambella	0.92
Harari	0.84
Addis Ababa	0.98
Dire Dawa	0.90
National	**0.94**

Source: Federal Republic of Ethiopia Ministry of Education, "Education Statistics Annual Abstract 2012/13," p.27

The Ministry of Education collects data on the repetition rate, a measurement of how many students remain in the same grade for two or more consecutive years. Surprisingly, as Table 20 shows, in 2012/13, boys' repetition rate was higher than girls.' The data underscores the fact that if provided the opportunity, girls stay and do well in school, and thus that there needs to be sustained and systematic effort to support the education of Ethiopian girls.

[216] MOE 2012-13, p.29

Table 20: Repetition Rate By Region and Sex for Primary Education (Grades 1–8)

Region	Male	Female	Total
Tigray	1.4	1.1	1.3
Afar	8.3	7.9	8.1
Amhara	8.9	7.6	8.2
Oromiya	9.3	8.7	9
Somali	0.2	0.3	0.3
Benishangul-Gumuz	12.7	12.6	12.7
SNNP	8.8	9.5	9.1
Gambella	8	7.8	7.9
Harari	9.5	7.4	8.6
Addis Ababa	1.7	1.3	1.5
Dire Dawa	6.4	6.6	6.5
National	**8.1**	**7.7**	**7.9**

*Somali has the lowest repetition rate and this might be due to inconsistency in the consecutive years' data. It could also be that Benishangul-Gumuz, SNNP, Oromiya, Amhara, and Afar have repetition rates above the national average.
Source: Federal Republic of Ethiopia Ministry of Education, "Education Statistics Annual Abstract 2012/13," p.32

In addition to the repetition rates, drop out rates are also important indicators of girls' success in early education. Table 21 shows variations in the dropout rates of male and female students in primary schools. Overall, SNNP, Oromiya, and Gambella had higher dropout rates than the national average for both boys and girls, and in Oromiya girls and boys drop out at the same rate. Furthermore, whereas in Tigray, Amhara Benishangul-Gumuz, and Gambella, boys dropped out at a higher rate than girls, in Afar, SNNP, Harari, and Dire Dawa, the converse was true, with girls dropping out at a higher rate than boys. The Afar region had the highest dropout rate for girls (15% as opposed to 10.3% for boys).

Table 21: Dropout Rate by Region and Sex for Primary Education

Region	Male	Female	Total		Region	Male	Female	Total
Tigray	9.1	7.7	8.4		SNNP	19.6	20.5	20
Afar	10.3	15.1	12.4		Gambella	17.3	16	16.7
Amhara	15.4	12.8	14.1		Harari	11.9	17	14.3
Oromiya	18.6	18.6	18.6		Addis Ababa	-0.8	0.3*	-0.2
Somali	-13.3	-12.1 *	-12.8		Dire Dawa	13.3	14	13.7
Benishangul - Gumuz	12.2	11.3	11.8		**National**	**15.9**	**15.4**	**15.7**

*Negative figures in Somali and Addis Ababa might be due to inconsistency of consecutive years' data.
Source: Federal Republic of Ethiopia Ministry of Education, "Education Statistics Annual Abstract 2012/13," p.34

Dropout rates at the primary level also vary by grade level; in 2012/13, grades 1, 5, and 8 had the highest dropout rates and grade 3 had the lowest, with 22.7% of first-graders dropping out before reaching grade 2 the following year.[217] Despite the fact that these numbers have implications for the overall science and technology success of girls in the country, this data is not sex-disaggregated and it is, therefore, not clear at which grade girls begin to disappear from the science and technology fields.

Secondary Education

Secondary education in Ethiopia includes two levels, the first one grades 9–10, at the end of which students take the Ethiopian General Secondary Education Certificate Examination, and the second one, which includes grades 11 and 12.[218] Depending on one's score, grades 11–12 can mean going through a preparatory program for higher education of TVETs. Secondary Net Enrollment tracks the enrollment of age-appropriate children (15–16 years old for grades 9–10 and 17–18 for grades 11–12). In the past 5 years, 9–10 grade enrollment has grown an average of 4.6% per year and 11–12 grade enrollment has grown 15.0%.[219]

While the gender gap has not been fully eliminated at the secondary education level, girls' enrollment is quickly catching up to and even surpassing boys'. As Table 22 shows, in 2008/09, the gap for grades 9–10 was 3.1 percentage points, with boys having a higher enrollment percentage than girls. For the years 2011/12 and 2012/12, however, girls' enrollment rate had overtaken that of boys.

[217] MoE "Education Statistics Annual Abstract 2012/13," p.34
[218] Ibid. p.40
[219] Ibid.

Table 22: Net Enrollment Rate for Secondary Education, Grades 9–10

Year	Boys %	Girls %
2008/09	15	11.9
2009/10	16.8	16.1
2010/2011	16.4	16.2
2011/12	16.9	17.6
2012/13	18.8	20.1

Source: Federal Republic of Ethiopia Ministry of Education, "Education Statistics Annual Abstract 2012/13," p.43

Despite the continuing improvement of the gender gap in enrollment, differences in the educational attainment of urban and rural women persist at the secondary or higher levels. Only 7% of rural women, compared with 38% of urban women, have secondary or higher education.[220] Given the fact that most students are rural residents, it means that girls still lag behind nationally.

Technical and Vocational Education and Training

Upon completion of tenth grade, students take the Ethiopian General Secondary Education Certificate Examination, which determines whether they continue on to 11–12 grades or move to Technical and Vocational Education and Training (TVETs). Most TVETs, which are government operated, aim to generate a middle-level technical workforce, although some private and NGO-run ones also cater to school dropouts and the marginalized as a way to generate income for them.[221] Although these institutions tend to be poorly funded and have inadequate infrastructure, they are important educational sites and the government has formulated new policies and poured resources into their reform.[222] As Table 23 indicates, female enrollment in TVETs remains almost equal to men's. In 2012/13, at 51.2%, female enrollment was slightly more than men's.

[220] CSA. "Mini DHS of 2014," p.22
[221] Kassahun, Meseret. October 2011. "Gender Analysis of the Technical and Vocational Education and Training Sub-Sector in Creating Women Innovators and Entrepreneurs in Ethiopia." Federal Democratic Republic of Ethiopia, Ministry of Science and Technology (MOST), p.16.
[222] Ibid. p.10

Table 23: TVET Enrollment Trends

Sex	2008/09	2009/10	2010/11	2011/12	2012/13
Male	165,910	196,937	199,799	173,148	116,457
Female	142,591	158,483	171,548	157,261	122,427
Total	308,501	353,420	371,347	314,159	238,884
% Female	50.3	43.9	48.0	46.2	51.2

Source: Federal Republic of Ethiopia Ministry of Education, "Education Statistics Annual Abstract 2012/13," p.54

Higher Education

Higher Education in Ethiopia includes undergraduate degrees offered for three, four, or more years and specialization degrees such as Masters and PhD programs. Table 24 shows undergraduate enrollment by program for 2012/13 in government and non-government owned higher education institutions. Unlike primary and secondary schools, higher education institutions have not made great strides in closing the gender gap: the percentage of female students hovered around 30% in 2012/13. Furthermore, non-government schools had a higher enrollment rate of female students at 42.6%, far ahead of the 27.9% of women enrolled in state-owned institutions.

Table 24: Percentage of Female Undergraduate Enrollment by Program

Ownership	Total	Female	% Female
Government	474,198	132,226	27.9
Non-government	79,650	33.915	42.6
Total	**553,848**	**166,141**	**30.0**

Source: Federal Republic of Ethiopia Ministry of Education, "Education Statistics Annual Abstract 2012/13," p. 57

Availability of On-the-Job Staff, Specialized Training

Data from the 2012 Urban Employment and Unemployment Survey (Table 25) provides some information about women's access to on-the-job, staff-specialized training in urban areas. Although it only addresses the urban population aged ten years and above, it does provide sex-disaggregated data for that group. Overall, females do not have as much access to training as males. Males received training at nearly twice the rate that women did (27.3% to 14.4% respectively).

Table 25: Male and Female Access to Training in Urban Areas

Region	All Persons			Training Status					
				Not Trained			Trained		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Country Total	11,110,653	5,168,014	5,924,639	79.6	72.7	85.6	20.4	27.3	14.4

Source: Federal Democratic Republic of Ethiopia Central Statistical Agency. September 2012. "Analytic Report on the 2012 Urban Employment/Unemployment Survey." p.22

The 2010 Population Council gender survey also provides some insight into the nature of skills training for Ethiopian women.[223] The study found not only that skills training for women remained very low across the regions, but that rural women were at a greater disadvantage than all groups. While only 10% of urban women had ever received vocational or skills training, the number became alarmingly low for rural women, at less than 1%.[224] In terms of the type of skills training available to women, tailoring (10%), accounting (10%), computer skills (9 %), and hair and beauty (8%) accounted for the bulk.[225] Furthermore, only 2%, most of whom were urban dwellers, had received entrepreneurship or business training, and 44% of them failed to translate their training into employment, with 65% noting the lack of access to capital.[226] Although this data does not provide a picture of what is happening to men in the regions, it does reveal the severe lack of training and resources for women in the country.

[223] Population Council et al., ""Ethiopia Gender Survey"
[224] Ibid., p.21
[225] Ibid.
[226] Ibid.

Dimension 8: Women in Knowledge Society Decision-Making

The extent to which women participate in the knowledge society depends on their decision making and governing roles, measured by indicators such as their share in legislative bodies, in senior managerial positions in government and businesses, where they account for at least 35% decision-makers.[227]

Shares of Women as Legislators, Senior Officials, and Managers

The share of women in knowledge society decision-making in Ethiopia is low, although the number of Ethiopian women in managerial positions varies by sector. As Table 26 shows, 26% of all managers were women in 2013, but when examining sub-divisions of managers such as chief executives, senior officials, and legislators, women accounted for only 14% and among legislators and senior officials, less than 10%. Unsurprisingly, women fared better in the hospitality and retail sector, making up almost 40% of the managerial employees.

Table 26: Females in Managerial Positions Countrywide by Minor Occupational Divisions

Managerial positions	**Total**	**Females**	**% Female**
Managers	231,211	61,302	26.5
Select Managerial sub-divisions			
Chief executives, senior officials, and legislators	44,876	6,569	14.6
Legislators and senior officials	28,121	2,209	8.0
Managing directors and chief executives	16,755	4,360	26
Administrative and commercial managers	53,971	16,378	30.3
Sales marketing and development managers	12,277	3,898	32.0
Manufacturing, mining, construction, and distribution managers	12,146	1,426	11.7
Information and communications technology service managers	4,360	1,446	33.1
Professional services managers	25,100	4,591	18.3
Hospitality retail and other services managers	70,907	27,513	39.0
Hotel and restaurant managers	18,403	8,425	46.0
Retail and wholesale trade managers	33,301	14,712	44.1

Source: Compiled from The Federal Democratic Republic of Ethiopia Central Statistical Agency. "2013 National Labor Force Survey," Table 5.6 (This table is on an unnumbered page)

[227] Huyer and Hafkin, p.85

Attaining higher education is perhaps one of the most relevant factors impacting participation in a knowledge-based society. Although there are not many studies that show Ethiopian women's share in academic leadership positions, one 2014 study tracked the share of women leaders in recently established new public universities (NPU) in Ethiopia.[228] As Table 27 below shows, women accounted for 9% of directors, less than 5% of management, and 0% of presidents or vice presidents. Furthermore, only five of the 105 of college deans—less than 5%—and only 3% of department heads were women. Women in other decision-making positions fared only slightly better; they accounted for 10% of total decision makers, with only 20 of 283 senators and 73 of the 657 academic commissioners being female.

Table 27: Gender Representation in Management Positions at the New Public Universities

Level	M	%	F	%	Total
MANAGEMENT POSITIONS					
University					
President	13	100	0	0	13
Vice-President	35	100	0	0	35
Directors	192	91	20	9	215
College					
Dean	100	95	5	5	105
Department					
Department Head	499	97	13	3	462
Total Management Positions	**792**	**95**	**38**	**5**	**830**
DECISION-MAKING BODIES					
Senate	263	93	20	7	283
Academic Commissions	584	89	73	11	657
Total members of decision-making bodies	**847**	**90**	**93**	**10**	**940**

[228] Anouka van Eerdwikk, , Franz Wong, Fetenu Bekele, Lenesil Asfaw, Mahlet Mariam. July 2014. "Female Faculty and Leadership: Affirmative Action and Gender Equality in New Public Universities in Ethiopia." (NICHE ETH-015 University Leadership and Management Capacity Development Project)

Source: Anouka van Eerdwikk, et al. July 2014. “Female Faculty and Leadership: Affirmative Action and Gender Equality in New Public Universities in Ethiopia,” p. 19

Share of Businesses with 35% or More Women in Decision-Making Positions

There is no sex-disaggregated data available for this indicator.

Dimension 9: Women in the Knowledge Economy

Measuring gender equity in science, technology, and innovation arenas involves evaluating women's presence in science and engineering programs at the tertiary level, their ability to pursue careers in the science and technology sectors, and their preparation to carry out research and to innovate in these fields, including becoming owners of small and medium scale enterprises.[229] The mass exodus from their countries of skilled workers in the fields of science and technology also undermines a country's ability to build an equitable knowledge society, an especially acute problem in developing countries.[230]

Women in Professional and Technical Positions

The number of women in technical and professional positions in Ethiopia is low. As Table 28 below shows, in 2013 women accounted for a little over 30% of the total professional workers. Women in the health field fared much better, making up almost 47% of health professionals. They even made up approximately 40% of the total number of medical doctors and more than half of the total number of professional paramedics. Surprisingly, women did not dominate as the nursing and midwifery field at the professional level, comprising only 48%. This may be the result of the medicalization of midwifery services and the fact that these are professional positions, factors, which may be attracting male workers into this traditionally female-dominated field. Among traditional and complementary medical practitioners, however, women dominated at 63%. It is not exactly clear how traditional and complementary medical professionals are defined, however.

Women exceeded the national average in other fields, too, such as business administration (35%) and, perhaps surprisingly, information and communications technology (45%). In fact, among database and network professionals, they comprised more than half the labor force, and among software and applications developers and analysts, women fared better than the total national average for female professionals, at 34%.

While women make up 31% of the total number of professionals in the teaching field, there are major gender discrepancies depending on the educational setting, however. For example, women made up over 40% of elementary school professionals but only 9% of higher education professionals. While some of these numbers are promising and are surprisingly high figures by international comparisons with both developing and developed countries, it is important to note that the data does not clarify why such high numbers exist as there is no detailed description of who is included in these job categories. For instance, it is not clear if the field "information and communication technology" includes women in administrative positions alongside IT technicians and professionals. More data is needed to understand better if women's high numbers in such fields is a reflection of gender parity and empowerment or women continue to be

[229] Ibid.
[230] Ibid.

relegated to stereotypical jobs that offer limited skill enhancement and income growth opportunities.

The one field in which women were absent almost across the board was science and engineering. Of the 64,739 professionals in this field, women accounted for only 16%. Fields such as physical and earth sciences, architecture and design, and even mathematicians had better female presence (30%, 27%, and 26% respectively), but the field of engineering remained closed to women. For instance, fewer than 10% of professionals in the electronic technology field, highly correlated with information technology, were women, making it, along with university teaching, one of the least accessible fields to women.

Table 28: Women in Professional Positions

Professional Positions	**Total: 563,231**	**Females: 181,668**	**% Females: 32**
Science and engineering professionals	64,739	10,878	16
Physical and earth science professionals	4,658	1,415	30.4
Mathematicians actuaries and statisticians	1,027	271	26.4
Life science professionals	24,797	4,358	17.6
Engineering professionals (excluding electro technology)	24,414	3,288	13.5
Electro-technology engineers	1,416	130	9.1
Architects, planners, surveyors, and designers	5,171	1,416	27.4
Health professionals	77,269	36,153	46.8
Medical doctors	12,871	5,143	40.0
Nursing and midwifery professionals	30,332	14,750	48.6
Traditional and complementary medicine professionals	1,868	1,180	63.1
Paramedical practitioners	226	128	56.6
Veterinarians	8,793	2,407	27.4
Other health professionals	23,179	12,545	54.1
Teaching professionals	227,587	71,089	31.2
University and higher education teachers	20,029	1,885	9.4
Vocational education teachers	10,185	1,883	18.5

Professional Positions	**Total: 563,231**	**Females: 181,668**	**% Females: 32**
Secondary education teachers	84,475	21,087	25.0
Primary school and early childhood teachers	102,185	43,011	42.1
Other teaching professionals	10,713	3,222	30.1
Business and administration professionals	126,184	44,410	35.2
Finance professionals	81,685	32,207	39.4
Administration professionals	33,848	7,949	23.5
Information and communications technology professionals	9,741	4,420	45.4
Software and applications developers and analysts	3,497	1,191	34.05
Database and network professionals	6,245	3,229	52.0
Legal social and cultural professionals	57,710	14,718	25.5
Legal professionals	25,734	5,125	20.0
Librarians archivists and curators	11,508	5,696	49.5
Social and religious professionals	11,241	1,348	12.0
Authors journalists and linguists	5,520	2,037	37.0
Creative and performing artists	3,706	512	14.0

Source: Compiled from The Federal Democratic Republic of Ethiopia Central Statistical Agency. "2013 National Labor Force Survey," Table 5.6 (This table is on an unnumbered page)

At the level of technical positions, women were similarly disadvantaged, although they were better represented in some sectors. Table 29 below shows, for example, that while overall women among technical workers in science and engineering accounted for 20% of the workforce, in mining, manufacturing, and construction supervision, they comprised only 7% of the labor force. Similarly, they made up only 13% of the physical and engineering science technicians. Women also had a poor showing among legal, social, cultural associate professionals, making up less than 20% of the junior labor force. Among information and communication technicians, women fared better, constituting over a quarter of the labor force. However, women were hardly represented among telecommunications and broadcasting technicians, making up less than 2% of that group. Similar to the professional section, among the technical workers, women in the health fields were better represented, with almost half that labor force being female. They made up 55% of nursing and midwifery associate professionals and over 60% of other health associates. This is slightly higher than the women's share in the same

category in among professionals, although the data does not clarify what the difference is between professional and technical nurses and midwives.

Table 29: Women in Technical Positions

Technicians and Associate Professionals	**Total: 804,750**	**Female: 264,416**	**% Female Professionals**
Science and engineering associate professionals	73,396	14,542	20.0
Physical and engineering science technicians	26,662	3,433	13.0
Mining manufacturing and construction supervisors	6,470	448	7.0
Process control technicians	9,506	3,678	39.0
Life science technicians and related associate professionals (excluding medical)	29,288	6,454	22.0
Ship and aircraft controllers and technicians	1,469	529	36.0
Health associate professionals	116,943	57,602	49.2
Medical and pharmaceutical technicians	19,496	5,136	26.3
Nursing and midwifery associate professionals	48,766	26,980	55.3
Traditional and complementary medicine associate professionals	2,414	999	41.4
Veterinary technicians and assistants	9,280	1,517	16.3
Other health associate professionals	36,987	22,970	62.1
Business and administration associate professionals	159,028	44,501	28.0
Financial and mathematical associate professionals	48,592	18,382	38.0
Sales and purchasing agents and brokers	43,092	9,704	22.5
Business services agents	5,244	1,092	21.0
Administrative and specialized secretaries	19,425	7,406	38.1

Technicians and Associate Professionals	**Total: 804,750**	**Female: 264,416**	**% Female Professionals**
Regulatory government associate professionals	42,675	7,917	18.5
Legal social cultural and related associate professionals	93,675	17,720	19.0
Legal social and religious associate professionals	61,874	9,331	15.1
Sports and fitness workers	14,345	980	7.0
Artistic cultural and culinary associate professionals	17,455	7,409	42.4
Information and communications technicians	17,018	4,439	26.1
Information and communications technology operations and user support technicians	14,732	4,396	30.0
Telecommunications and broadcasting technicians	2,286	43	1.9
Teaching associate professionals	323,821	124,149	38.3
Special education teaching associate professionals	20,870	1,462	7.0

Source: Compiled from The Federal Democratic Republic of Ethiopia Central Statistical Agency. "2013 National Labor Force Survey," Table 5.6 (This table is on an unnumbered page)

While the health sector is showing growth in female employment, older studies that examined various occupations within the health field showed deeper gender divisions. For instance, a 2010 World Health Organization (WHO) study of health care providers found that more than 50% of health workers were male, with a mean age of 25 years.[231] As Table 30 also shows, among workers at the highest level of this sector, such as general practitioners and specialists, men predominated. Out of 1,101 general practitioners and 1,001 specialists, for example, women accounted for 17.6% and 17.8% respectively. But at the low- and mid-levels of the health workforce, 71% of midwives and 99% of health extension workers were female. The predominance of women in these fields points to the overrepresentation of women in low-level positions and their continued marginalization in higher-skilled work.

[231] AHWO, "*Human Resources for Health Country Profile: Ethiopia"*

Table 30: Gender Distribution by Health Occupations

Health Occupational Category	Gender		
	Total	Female	% Female
General Practitioner	1,101	194	17.6
Specialist	987	174	17.8
Health Officer	1,575	376	23.9
Pharmacist	621	178	28.7
Pharmacy Technician	1,960	733	37.4
Nurse (BS degree)	1,700	718	42.2
Midwife	1,350	961	71.2
Clinical Nurse	16,404	8,264	50.4
Psychiatric Nurse	68	31	45.6
Anesthetic Nurse	174	65	37.4
Public Health Nurse	951	336	35.3
Other Nurse (dental, ophthalmic ORL)	386	193	50.0
Physiotherapist	149	30	20.1
Laboratory Technologists	820	195	23.8
Laboratory Technician	1,927	676	35.1
Radiographer	160	37	23.1
X-Ray Technician	134	21	15.7
Environmental Health Professional	600	88	14.7
Environmental Health Worker (diploma)	639	140	21.9
Health Education Professional	71	14	19.7
Dental Technician	33	9	27.3
Health Assistant	1,464	631	43.1
Health Extension Worker	30,950	30,950	99.0
Other Health Professional	1,330	378	28.4
Total	65,554	45,393	69.2

Source: African Health Workforce Observatory, "Human Resources for Health Country Profile: Ethiopia," p.24

Data from the Ministry of Education similarly shows that at TVETs, men predominate. Table 31 below shows 2012/13 data for teachers enrolled to become trainers at TVETs. Although this data does not directly track workers, it gives a glimpse into the level of preparedness of women as technical workers in the various administrative regions of the country. Out of 12,779 teachers at TVET institutions, there were 2,101 female teachers, accounting for a mere 16%. In Addis Ababa, female trainees accounted for a quarter of the enrollees, the highest in the country, whereas in Gambella and Dire Dawa, women had the poorest showing, at 6.3% and 8.04%, respectively.

Table 31: Teacher Trainers Enrolled at TVETs

Region	Number of TVET Institutions	Number of Teachers (Trainers)		
		Male	Female	Total
Tigray	40	1,226	254 (17.16%)	1,480
Afar	2	26	5 (16.12%)	31
Amhara	74	2,113	432 (16.97%)	2,545
Oromiya	212	4,512	783 (14.78%)	5,295
Somali	-	-	-	-
Benishangul-Gumuz	-	-	-	-
SNNP	65	1,496	276 (15.57%)	1,772
Gambella	3	44	3 (6.3%)	47
Harari	-	-	-	-
Addis Ababa	33	964	322 (25.03%)	1,286
Dire Dawa	8	297	26 (8.04%)	323
Total	437	10,678	2,101 (16.44%)	12,779

Source: Federal Republic of Ethiopia Ministry of Education, "Education Statistics Annual Abstract 2012/13," p.56

Shares of Women in Administrative and Managerial Positions

The number of Ethiopian women in managerial positions varies by sector. As indicated in Table 26 (see Dimension 8: "Shares of Women as Legislators, Senior Officials, and Managers") in 2013, a little over a quarter of all managers were women, but the number of women among chief executives, senior officials, and legislators was only 14%. Among legislators and senior officials, specifically, women accounted for less than 10%. Not surprisingly, women fared better as in the hospitality, retail, and other service industries, making up almost 40% of the managerial employees.

Female Employment in Agriculture, Industry, and Services

Agriculture is one of the largest sources of employment for Ethiopians, and women make up a large percentage of the agricultural labor force. Table 32 shows that women's participation in the agricultural sector has been growing over the last several years, peaking at 45% in 2014.

Table 32: Share of Females in Agriculture Labor Force

	Share (%) 2014
Labor force in agriculture (% of total labor force)	75.1
Females (% of labor force in agriculture)	45.0

Source: FAOSTAT. "Ethiopia. Economic Indicators."
http://faostat.fao.org/CountryProfiles/Country_Profile/Direct.aspx?lang=en&area=238

Data from the 2013 Labor Force Survey also provides data on skilled labor in the agricultural, forestry, and fishery fields. Out of the 20,231,430 people employed as skilled workers in this sector, 6,658,401, or 32%, were females.[232]

In recent years, the service sector has emerged as a major means of economic growth in the country, accounting for 45.3% of the GDP in 2011–12.[233] In fact, that year the service sector was even bigger than the agriculture sector.[234] Data from the 2013 National Labor Force Survey shows that females made up 2,394,614 out of the 3,670,391 workers in service and sales.[235]

Ethiopia's industrial sector has also been expanding rapidly in the last five years. In 2011–12, the sector accounted for 17% of the country's GDP growth, with the construction and manufacturing sectors accounting for the largest engines of industrial growth.[236] The role of women in this sector has been increasing, although there is great variation by sub-sector. As Table 33 shows, in 2013 women accounted for 46% of the total workers employed by the major industrial sectors. However, in sub-sectors such as construction, which employed 1,902,194 workers, women constituted roughly 21% of the workforce. By contrast, in manufacturing, women made up over 60% of the employed. Women were also grossly overrepresented in the fields where households were the employers, making up 86% of the workforce. Similarly, in the water supply and sewage/waste management, as well as in food service sectors of industry, women accounted for almost three-quarters of the labor force. It is worth nothing that these fields in the food and cleaning industries are typically viewed as feminine. By contrast, in the industrial agriculture, forestry, and fishing sector as well as in the energy and transportation/storage fields, women made up a mere 8.5%, 12.2%, and 11% respectively. Thus, while women's participation in the

[232] CSA. "2013 National Labor Force Survey," Table 5.3a
[233] Ethiopian Economics Association (EEA). July 2013. *Report on the Ethiopian Economy: Private Sector Development in Ethiopia with Particular Emphasis to the Manufacturing Sector*. (Addis Ababa: Ethiopian Economics Association/Ethiopian Economic Policy Research Institute), p.14
[234] Ibid. p.9
[235] CSA. "2013 National Labor Force Survey," Table 5.3a
[236] EEA. "Report on the Ethiopian Economy," p.11

industrial sector continues to grow, it is also marked by gender stereotypes, with women participating in work considered "feminine" while underrepresented in most other sectors.

Table 33: Percentage of Women in the Industrial Sector

Major Industrial Divisions	**Total**	**Female**	**% Female**
Employed Population	**42,403,879**	**19,517,232**	**46**
Agricultural forestry and fishing	30,817,068	2,621,276	8.5
Mining and quarrying	179,681	63,532	35.3
Manufacturing	1,902,194	1,163,210	61.1
Electricity gas steam and air conditioning supply	27,183	3,331	12.2
Water supply & waste management	200,128	154,031	77.0
Construction	824,769	174,177	21.1
Wholesale and retail trade; repair of motor vehicles	2,305,352	1,445,206	63.0
Transportation and storage	352,796	37,547	11.0
Accommodation and food service activities	482,340	347,242	72.0
Information and communication	60,002	22,518	37.5
Financial and insurance activities	133,942	49,323	37.0
Real estate activities	142,921	808	0.56
Professional scientific and technical activities	287,397	42,945	15.0
Administrative and support service activities	142,921	50,299	35.1
Public administration and defense; compulsory social security	287,397	83,277	29.0
Education	682,921	257,391	38.0
Human health and social work activities	251,538	140,661	56.0
Arts entertainment and recreation	42,142	16,421	39.0
Other service activities	456,425	178,360	39.0
Activities of households as employers; undifferentiated own-use goods- and services-producing activities	3,091,142	2,657,256	86.0
Activities of extraterritorial organizations and bodies	21,990	8,422	38.3

Source: Compiled from The Federal Democratic Republic of Ethiopia Central Statistical Agency. "2013 National Labor Force Survey," Table 5.8 (This table is on an unnumbered page)

Table 34 shows the status of women employees in the professional, scientific, and technical fields connected to the industrial sector, where 42,945 of the 139,942 employees were women, or 30% of the industry overall. However, in subfields such as architecture and engineering, as well as in technical testing and analysis, women accounted for only 13.3% of the labor force. The veterinary field hired the bulk of women in this field, at 32.2% of the total.

Table 34: Share of Women Employees in the Professional, Scientific, and Technical Fields

Professional, Scientific, and Technical Activities	**Total Employed Persons: 139,942**	**Female: 42,945**	**% Females: 30.7**
Architectural and engineering activities; technical testing and analysis	1,745	232	13.3
Scientific research and development	13,939	3,708	26.6
Veterinary activities	19,847	6,401	32.2

Source: Compiled from The Federal Democratic Republic of Ethiopia Central Statistical Agency. "2013 National Labor Force Survey," Table 5.10 (This table is on an unnumbered page)

Women with High-Level Computer Skills

Computer use is still relatively low across Africa, and specific information about Ethiopian women's use of computers is scarce. A 2012 Research ICT Africa and the University of Cape Town study of computer penetration in 16 African countries, including Ethiopia, found that in most of the countries, men made more use of computers, although in Ethiopia men and women made fairly equal use of computers. The study also found that while men and women generally browsed the Internet at the same level, in all the countries men employed computers at a higher rate for word processing, working on spreadsheets, remixing, programming, and playing games, with the widest gender gap relating to remixing online content and programming.[237] There is a need for sex-disaggregated data on computer use in Ethiopia for updated knowledge about women's participation in ICT.

Shares of Women Among Information Technology Workers

Women's participation as information technology workers is growing in Ethiopia. Table 35 below provides a snapshot of gender employment patterns in the industrial sector related to science and technology in 2013. Overall, women accounted for an impressive 41% of the computer, electronic, and optical products manufacturing sectors. Although in many specific industries such as civil engineering, manufacturing of electrical equipment, and manufacturing of machinery, gender parity has not been achieved—women made up between 30% and 40% of the labor force of most sub-sectors—the numbers still reflect the country's affirmative action goal of a 30% female representation in various sectors. Some sub-sectors lagged far behind, however;

[237] Ibid, p.40

for instance, in the repair and installation of machinery and equipment sub-sector, women accounted for less than 10% of the labor force, which is possibly a result of deep-seated cultural perceptions on the part of men and women that mechanical skills are more suited for men.

Table 35: Women in the Computer Manufacturing Sector

Manufacture of Computer, Electronic and Optical Products	**Total Employed Persons: 6,933**	**Female: 3,554**	**% Females: 41**
Manufacture of electrical equipment	8,600	2,579	30.0
Manufacture of machinery and equipment not elsewhere classified	8,379	2,698	32.1
Manufacture of motor vehicles, trailers and semi-trailers	9,928	1,927	19.4
Manufacture of other transport equipment	5,891	2,156	36.6
Repair and installation of machinery and equipment	28,671	2,218	8.0
Civil engineering	150,805	45,623	30.2

Source: Compiled from The Federal Democratic Republic of Ethiopia Central Statistical Agency. "2013 National Labor Force Survey," Table 5.10 (This table is on an unnumbered page)

There are also variations in female employment in the information and communication industry. Some fields lean toward gender equity or even have women dominating the labor force, while others are inaccessible to women. Table 36 below shows that in 2013, women made up 37% of the information and communication labor force overall. Furthermore, in fields such as publishing and computer programming as well as the consultancy and information service field, women dominated the workforce at 52% and 58% respectively. Fields such as programming and broadcasting and information and communication also had substantial female employees: 45.3% and 38.3% respectively. Telecommunication had the lowest female representation in 2013, at 22.3%. This data, while mostly encouraging, requires further inquiry because it is not clear why are shown to women have such a large presence in these fields, which runs counter to international patterns. While the government has set affirmative action quotas for female employment, it is uncertain if this policy can explain the large female presence. Information is lacking on the data definitions utilized in data collection in these categories. More information is needed about who is counted in these jobs to assess if women are making real strides in the information and communication industry or if they are playing subordinate and traditional roles such as administrators and low-level workers in these settings.

Table 36: Women in the Information and Communication Sector

Type of Information and Communication Work	Total Employed Persons: 60,002	Female: 22,518	% Females: 37.5
Publishing Activities	9,699	5,041	52.0
Motion Picture, Video and Television Program Production, Sound Recording and Music Publishing Activities	3,811	1,056	28.0
Programming and Broadcasting Activities	2,288	1,037	45.3
Telecommunications	19,504	4,365	22.3
Computer Programming, Consultancy and Related Activities	7,839	4,566	58.2
Information Service Activities	16,861	6,453	38.3

Source: Compiled from The Federal Democratic Republic of Ethiopia Central Statistical Agency. "2013 National Labor Force Survey," Table 5.10 (This table is on an unnumbered page)

Despite low numbers of women in the telecommunication sector, Ethio Telecom, the largest ICT provider in the country and a major employer and entryway of women in ICT careers, has made a concerted effort to expand the role of women and increase the number of its female employees. The agency has set an affirmative action goal of 40% female employment, and its May 2015 sex-disaggregated employee profile shows that out of 11,893 employees, slightly more than 25% were women.[238] Despite not being close to 40% female employment, 25% female employment in this sector is a vast improvement from three years prior, when women workers accounted for a mere 14%.[239]

Despite these achievements, at the department level at Ethio Telecom, the female employment rate shows variation. As Table 37 shows, as of May 20105 fields such as finance, human resources, and information systems had 30% female employees, while the network department, which perhaps requires the most important technical skills in the technology sector, had only 8%.

Table 37: Head Count of Ethio Telecom Employees as of May 31, 2015 by Organizational

[238] Ethio Telecom. Personal Communication. June 2014
[239] Ibid.

Unit and Gender

Organization	Male	Female	Total	% Female
Board Office	1	1	2	50.0
CEO Office	10	11	21	52.0
Customer Service	1130	1143	2273	50.0
Enterprises	203	99	302	33.0
Finance	472	354	826	43.0
Human Resources	127	88	215	41.0
Information System	201	92	293	31.0
Internal Audit	44	13	57	23.0
Legal Division	101	36	137	26.0
Marketing and Communications	61	24	85	28.0
Network	3668	301	3969	8.0
Operations	12	7	19	37.0
Program Management Office and Public Relations	12	3	15	20.0
Project Management	4	1	5	20.0
Quality and Process	43	14	57	25.0
Residential Marketing and Sales	1139	521	1660	31.0
Residential Sales	16	8	24	33.0
Security	130	34	164	21.0
Sourcing and Facilities	1494	239	1733	14.0
Temp Office	33	3	36	8.0
Total	**8901**	**2992**	**11893**	**25.0**

Source: Ethio Telecom. Human Resources Division: Disaggregated Employees Profile as of May 31, 2015

The department in which women are most highly concentrated is customer service, accounting for 50% of the employees. In the CEO office, women make up more that half the staff. However, that refers to the organizational unit and not the level of employment.The concentration of women in customer service and administrative fields might give the impression of a typical overrepresentation of women in service positions; indeed, much of the work in customer service involves sales of products to local retailers and interfacing with customers. However, the focus

on boosting female employment in customer service is part of a strategy to promote women and subsequently to stream them into the most male-dominated technical fields, such as networking.

As the head of the corporation's women's bureau points out, customer service is not only the largest source of employment, but also the department in which employees gain experience with the organization and thus have promotional opportunities. Employees grow in the organization after they have mastered the area of customer service, where they become acquainted with the products and the ways in which customers experience their products. In the last few years, Ethio Telecom has been increasing the number of employees in this department by raising the number of female customer service specialists. While the gender director admits that the agency is far from its goal of attaining at least 25% in technical fields such as networking, within a few years, it hopes women will rise from the ranks of customer service workers into this area. It is not clear, however, if any male employees in networking entered the networking field from customer service and if the movement from customer service to networking is indeed viable.

Although the concentration of women in customer service is part of the stated long-term strategy to move women into other jobs within Ethio Telecom, few women are currently found at the highest levels of the organization. Table 38 from May 2015 shows the presence of men and women in various job levels ranging from A at the lowest level to I, representing the highest positions available. Although 25% of the 1,1893 employees are women, they are concentrated in the lowest four levels (A–D). Only 33 women compared to 265 men are in Level E and as the levels increase, women simply disappear. For instance, level G jobs have 15 men and only 1 woman.

Table 38: Existing Head Count by Ethio Telecom Job Level

Job Level	**Male**	**Female**	**Total**	**Female %**
A	436	44	480	9.0
B	1744	396	2140	19.0
C	4753	2181	6934	31.0
D	1642	332	1974	17.0
E	265	33	298	11.0
F	45	5	50	10.0
G	15	1	16	6.0
I	1	0	1	0
Total	**8901**	**2992**	**11893**	**25.0**

Source: Ethio Telecom. Human Resources Division: Disaggregated Employees Profile as of May 31, 2015

Similarly, Table 39, which lists the male and female roles in the organization, shows that the type of work performed at the organizations tends to follow traditional gender workplace

stereotypes, with women accounting for 100% of the secretarial work (administrative assistant), 100% of personal assistantships, 97% of cleaning jobs (janitor), and 65% of sales representatives. Men were overrepresented in positions typically associated with masculinity: they comprised 100% of the organization's drivers, 97% of technical jobs such as line specialists and line technicians, and over 80% of network specialists and network technicians. Women were closing the gender gap in advisory (52%), clerical (49%), and contract (43%) positions. They were also showing growth in professional positions, at 37%.

Table 39: Existing Head Count by Job Role Ethio Telecom

Job Role	Male	Female	Total	Female %
Administrative Assistant	0	89	89	100
Advisor	936	1034	1970	52.0
Business Owner	3	1	4	25.0
Chief Executive	1	0	1	0
Clerical	215	210	425	49.0
Contract Owner	52	40	92	43.0
Driver	993	2	995	0
Executive	15	1	16	6.0
Executive Personal Assistant	0	1	1	100
Expert	8	3	11	27.0
Janitor	1	38	39	97.0
Line Specialist	778	25	803	3.0
Line Technician	840	26	866	3.0
Manager	255	30	285	11.0
Messenger	5	0	5	0
Network Specialist	213	29	242	12.0
Network Technician	1276	178	1454	12.0
Network Expert	2	0	2	0
Office Specialist	115	10	125	8.0
Office Technician	52	11	63	17.0
Officer	45	5	50	10.0

Job Role	**Male**	**Female**	**Total**	**Female %**
Personal Assistant	0	8	8	100
Physical	13	4	17	24.0
Professional	898	524	1422	37.0
Sales	19	35	54	65.0
Sales Executive	667	356	1023	35.0
Senior Personal Assistant	0	12	12	100
Specialist	567	158	725	22.0
Supervisor	932	162	1094	15.0
Total	**8901**	**2992**	**11893**	**25.0**

Source: Ethio Telecom. Human Resources Division: Disaggregated Employees Profile as of May 31, 2015

Dimension 10: Women in Science, Technology, andInnovation (STI) Systems

Women's ability to participate in STI systems depends on their access to the science, engineering and technology sectors of research and industry, their ability to be owners and leaders in the private sector, and their opportunity to utilize and innovate technologies.[240] STI participation can be measured by indicators such as the share of women studying science and engineering at the tertiary level, their share among engineers and scientists, and their presence and productivity in STI-related careers as entrepreneurs and researchers.[241] Other indicators include brain drain of skilled workers, which has an effect in the development of sustainable STI systems.

Shares of Women Studying Science and Engineering at Tertiary Level

The share of Ethiopian women in higher education in science and technology programs has been on the rise, largely due to the new university enrollment policy the government adopted. As of 2011-12, the intake ratio of science and technology to social and humanities sciences (S&T to SHS) for all universities was 70:30. In the year 2012-13, the S&T to SHS ratio was 74:26.[242]

Table 40 below shows that in 2013, women accounted for 27% of the total 218,738 university students enrolled in science and technology. Addis Ababa University, the nation's largest university, provides a detailed look at women's enrollment in various fields within the science, technology, engineering, and math tracks. The data shows that while some fields had achieved gender parity, some areas fared better than others in educating women in science and technology fields. For instance, the Natural and Computational Sciences and Medicine and Health Sciences had relatively high female enrollment of women, at 34% each, while Agriculture and Life Sciences and Engineering and Technology had less than 20% women.

Table 40: Female Students Enrolled in Science and Technology at Addis Ababa University

Institution/Band/Program	**Total: Years I-VI & Above**	**Female**	**% Female**
Total	**294,357**	**82,301**	**28.0**
Total Science & Technology	218,738	58,626	27.0
Addis Ababa University	**21,590**	**5,241**	**24.2**
Band 1: Engineering & Technology	**9,592**	**1,589**	**16.5**
Pre-Engineering	1,844	19	1.0
Chemical Engineering	492	64	13.0

[240] Huyer and Hafkin, *Engendering the Knowledge Society*, p.85
[241] Ibid.
[242]MoE "Education Statistics Annual Abstract 2012/13," p.59

Institution/Band/Program	Total: Years I-VI & Above	Female	% Female
Civil Engineering	2,807	472	16.8
Biomedical engineering	34	3	9.0
Information Technology	15	4	27.0
Communication	84	15	18.0
Computer Engineering	103	25	24.2
Software Engineering	48	3	6.2
Electrical and Computer Engineering	694	87	12.5
Power Engineering	59	5	8.4
Mechanical Engineering	699	89	13.0
Industrial Engineering	78	17	22.0
Thermal Engineering	14	2	12.2
Information System	281	110	39.1
Architecture and Urban Planning	889	227	25.5
Construction Technology and Management	1,128	359	32.0
Urban & Regional Planning	323	88	27.2
Band 2: Natural and Computational Sciences	**2,825**	**951**	**34.0**
Biology	494	193	39.0
Physics	133	24	18.0
Chemistry	296	73	25.0
Mathematics	245	41	16.7
Statistics	230	83	36.0
Sport Science	201	23	11.4
Computer Science	331	85	26.0
Earth Sciences	402	63	16.0
Band 3: Medicine and Health Sciences	**2,825**	**951**	**34.0**
Anesthesia	141	66	47.0
Medicine	1,296	448	34.5

Institution/Band/Program	Total: Years I-VI & Above	Female	% Female
Per Medicine	293	75	25.5
Midwifery	239	100	42.0
Radiography	162	36	22.2
Laboratory	137	55	40.1
Nursing	276	78	28.2
Band 4: Agriculture and Life Sciences	**596**	**102**	**17.1**
Agricultural Economics	95	22	23.15
Animal Science and Technology	18	5	28.0
Horticulture	27	14	52.0
Plant Science	48	28	58.3
Veterinary Medicine	408	33	8.0

Source: Federal Republic of Ethiopia Ministry of Education, "Education Statistics Annual Abstract 2012/13," pp. 173–193

Within specific programs, variations also emerged. For instance, Information Systems had a 39% female enrollment rate, while Software Engineering, Power Engineering, Biomedical Engineering, and Veterinary Medicine had less than 10% female enrollment. Pre-Engineering had the lowest number, at 1%. Despite the fact that the school of Natural and Computational Sciences had 34% female enrollment overall, its specific programs such as physics, math, sport science, and earth science had less than 20% female students. Meanwhile, programs such as Biology, Anesthesia, Laboratory, Medicine, and Construction Technology Management have between 30–50% female enrollment. Horticulture was the exception, with majority women (52%).

While the 70:30 sciences to humanities intake ratio is boosting the presence of both women and men in the sciences, as the director of the gender bureau at Ethio Telecom points out, there is a lack of current sex-disaggregated data, particularly in terms of attrition and graduation rates.[243] Indeed, the above data from the Ministry of Education reflects enrollment data but does not reveal much about female attrition rates. On the other hand, a 2011 study by the Ministry of Science and Technology (MOST) of undergraduate female enrollment, graduation, and attrition in science and technology education at Addis Ababa Institute of Technology shows some discrepancy between enrollment in the sciences and attrition, although it mostly assesses the period before the implementation of the 70:30 policy.[244] For instance, in many academic fields,

[243] Wzo. Yalemzewd. Gender Bureau Director, Ethio Telecom. Personal communication. June 2015
[244] Yizengaw, Kelemuwa and Endaweke Abebe. November 2011. "Undergraduate Female Students in Science and Technology Education: Challenges and Opportunities." (Ministry of Science and Technology)

women's attrition rate was lower than men's, indicating that, given access to opportunity, female students succeed at a high rate.[245] In the science fields, however, female enrollment was low and attrition rates high.[246] The study also pointed to other important factors about women's ability to succeed in STEM fields, such as the reception of their presence by their peers, women's own attitudes about STEM fields, and administrators' and faculty members' beliefs about women in these fields. For instance, in 2011, the affirmative action policy, which aimed to increase female enrollment in STEM, set a 10% quota and a lower entrance cut-off point for female students, both which are often used to discredit women's ability to succeed in these fields.[247] The study found that administrators and male students often discredited affirmative action policies by arguing they assail women's self-esteem and make women doubt their merit to be in these programs.[248] There were also common discriminatory attitudes among department heads, such as beliefs that women are genetically incapable of scientific knowledge or that being female somehow affects women's success in the science and technology fields, as exemplified by one department head:

> Female students either do not have the intellectual capability or they are essentially not smart enough to deal with the hard skills. Learning hard science especially mathematics and physics is not as easy as soft sciences, they fear of those hard sciences.[249]

When asked what they thought of the belief that women do not have the intellectual ability to succeed in the sciences, 40% did not have any position on the statement, potentially indicating an apathetic attitude toward the effort to increase female participation in the sciences. The study also found that a higher percentage of department head respondents (35.1%) agreed with the statement that being male or female affects one's performance in science and technology, compared to those who disagreed (24.7%).[250] Many respondents also agreed that female students are better at biology than physics and mathematics.[251]

Despite such widely held biases against women in STEM, structural barriers better explain the high female attrition rates in the sciences. For instance, among the main reasons that female students gave for the challenges they faced in science and technology education, most noted weak academic backgrounds and lack of support from instructors as the top reasons.[252] Indeed, 85.5% of the female students interviewed reported having no opportunity to learn from female instructors in science and technology departments.[253] Respondents also cited "insufficient

[245] Ibid., 26
[246] Ibid.
[247] Ibid., 27
[248] Ibid.
[249] Ibid., 30
[250] Ibid.
[251] Ibid., 31
[252] Ibid., 32
[253] Ibid., 28

academic support and counseling service from faculty" as a major impediment, along with the belief that males find sciences easier.[254]

Shares of Women Scientists and Engineers

There is limited data on the number of women scientists and engineers in Ethiopia. One 2014 study at the 13 new public universities found that women are grossly underrepresented among scientists and engineers in various higher education departments. As Table 41 below shows, among academic staff holding a PhD, Masters, or Bachelors degree in the scientific and engineering fields, over 80% of the staff were males. Among holders of bachelors degrees, for instance, the Natural and Computational Science schools had the highest percentage of female staff at 17%. Female engineers with bachelors degrees accounted for less than 10% of the staff. Masters degree holders did not fare much better, with the veterinary school, which had the highest percentage of female academic staff, only reporting 12% female staff. Meanwhile, among master's-holding staff in the Engineering and Technology schools, women made up a mere 5%. Women were the least represented among PhD holders, however, making up 14% at the highest level in Agriculture and Natural Resource Schools and completely missing among PhDs in Engineering and Technology as well as from the Health and Medical Sciences schools.

[254] Ibid., p.33

Table 41: Female Faculty Members in STEM at the New Public Universities

Faculty / College/ Institute / School	PhD degree holder					MSc / MA degree holder					BSc / BA degree holder					Total				
	M	%	F	%	Total	M	%	F	%	Total	M	%	F	%	Total	M	%	F	%	Total
Agriculture & Natural Resource	25	86	4	14	29	396	90	44	10	440	79	87	12	13	91	500	89	60	11	560
Engineering & Technology	7	100	0	0	7	381	95	20	5	401	757	92	67	8	824	1145	93	87	7	1232
Health & Medical Science	12	100	0	0	12	759	89	90	11	849	432	89	55	11	487	1203	89	145	11	1348
Natural & Computational Science	55	95	3	5	58	1132	95	54	5	1186	162	83	33	17	195	1349	94	90	6	1439
Veterinary	8	100	0	0	8	23	88	3	12	26	12	71	5	29	17	43	84	8	16	51

Source: van Eerdwikk et al. "Assessment: Female Faculty and Leadership," p.17

Shares of Women Researchers

Very little information exists on the share of women researchers, their level of productivity or the challenges they face in Ethiopia.

Women's Publication and Innovation Patent Rates and Trends

As a way to encourage women innovators, MOST has undertaken a number of projects, such as award programs, that seek out female innovators. For instance, in 2015, its national innovator and researcher award program, which acknowledged 278 science and mathematics students and teachers, TVET trainers and trainees, innovators, and researchers, made awards to 60 female innovators.[255] It has also set up a gender bureau, which supports innovations that increase women's free time. In 2014, the bureau supported the development of 21 technologies that target one of the most demanding and time-consuming aspects of Ethiopian women's lives: food preparation. The bureau also runs an innovation award programs for such projects. By focusing on the area that most consumes women's time, the bureau hopes to increase the time women can devote to activities such as attending school and caring for their health, which in turn will open up more opportunities to partake in the country's development projects.

[255] Ministry of Science and Technology. **http://www.most.gov.et**

Despite these activities to increase women's participation in innovation and research, challenges remain. For instance, in 2014 there were only two women recipients of the innovators award given out by the gender bureau for innovations related to women's excess workload.[256] Furthermore, sex-disaggregated data on the trends of publication and patents for innovation in Ethiopia remains limited. As the director of the gender bureau director at MOST further noted, very few Ethiopian women publish or patent innovations, largely due to prevailing beliefs that science is not a suitable field for women and to the time constraints of domestic responsibilities.[257] She further noted that despite the 70:30 policy pushing most students in the STEM fields, more women still gravitate toward the social sciences, severely limiting the pool of women who can be trained as science and technology innovators and researchers.

Gender Trends in Brain Drain in Highly Skilled Fields

There was no sex-disaggregated data available for this indicator.

Number of Women-Run Enterprises in Sector Value Chains

There was no sex-disaggregated data available for this indicator.

[256] Ibid.
[257] Wzo. Tigist Yeheyes, Director of Gender Bureau, Ministry of Science and Technology. Personal Communication, June 2015

Dimension 11: Women and Lifelong Learning

The opportunity for life-long learning is one of the driving forces of a knowledge-based society. With the support of ICTs, long learning can promotes learning communities; citizens can access up-to-date information, update their work skills, create new networks, and innovate new technologies and businesses.[258] Women's presence in lifelong learning activities reveals the extent to which a knowledge-based society is equitable.[259] Indicators for life-long learning include the share of women as managers of knowledge centers and women as users of knowledge centers.

In Ethiopia, Ethio Telecom has established knowledge centers in villages and towns and it has been promoting women's use of them but no official data exists yet on women's use patterns.[260]

[258] Huyer and Hafkin, *Engendering the Knowledge Society*, p.86
[259] Ibid.
[260] Wzo. Adanech. Gender Bureau Director, Ministry of ICT. Personal Communication. June 2015

Conclusions

Dimension 1: Enabling Policy Environment

The Ethiopian government should be commended for the measures it has taken to provide a favorable policy environment for gender equality. Major changes for gender equality include constitutional prohibition of gender discrimination and the guarantee of equal rights to women; reforms to the penal code, particularly the family laws; affirmative action policies across economic, educational and political settings; the ratification of international women's, children's and human rights treaties; and various civil service reforms. However, there are still additional areas that need to be addressed. There remain gaps in the implementation of policy that has already been issued. The passage of the Charities and Societies Proclamation has also stifled women's organizations and non-government controlled gender advocacy. The government does not have the capacity to address the complex and vast problems Ethiopian women face, however, nor can it be presumed to be an infallible and accountable source for ensuring women's rights.

Dimension 2: Health Status

The government has made a major commitment to improving women's health, particularly maternal and child healthcare, HIV/AIDS, Malaria, and TB prevention. Skilled antenatal care has increased, which has improved maternal mortality rate and decreased the adolescent birth rate. HIV/AIDS rates are also declining, as are Malaria and TB infections.

Despite such dramatic achievements, Ethiopian women continue to score low on health indices. Women's visits to antenatal care providers are still low as is their rate of giving birth at health facilities. The number of Ethiopian women who receive postnatal care is negligible as well, with poor women, those under age 35, rural mothers, and those with less than a secondary education faring especially poorly. Ethiopian women also have less comprehensive knowledge of the disease and prevention method than men and women continue to be afflicted by and die from the disease at higher rates.

An estimated 23.8 million Ethiopian girls and women are subjected to female genital mutilation, although in recent years, the government has made a concerted effort to end FGM. It has outlawed the practice, now tracks FGM information in national surveys, conducts public education campaigns regarding the health damages of FGM, re-educates traditional practitioners and places them in other income generating work, and is educating girls as way to decrease public support for the practice. While the practice is declining across the country, it is showing an increase in the Somali region. The practice also has considerable support from women with less than secondary education, who subject their daughters to it more than educated women.

Dimension 3: Social Status

There are no large gender imbalances in Ethiopia. Although there is no official data to determine if sons are preferred over daughters, practices such as widespread violence against girls and women and the overvaluation of boys in cases of property inheritance suggest that girls are less valued than boys.

New laws and policies have come into effect prohibiting various types of GBV including the revision of the family code and the introduction of women's rights in the constitution. There are now established institutional structures of law enforcement and gender-sensitive criminal proceedings, including investigation and evidence gathering, are underway. Since these changes, women are increasingly reporting the violence perpetrated against them.

Nonetheless, gender-based violence, particularly harmful traditional practices such as FGM, early marriages, and abduction, are all too common. An estimated 50–60% of Ethiopian women are said to experience domestic violence in their lifetime. They also face high levels of economic, psychological, and sexual violence. Girls' education is also often undermined by sexual harassment, physical violence, and sexual abuse. Secondary school female students especially suffer, often ridiculed during their monthly menstrual cycle, leading them to skip classes. Boys also physically beat girl students when their declarations of love are rejected. Secondary as well as higher education male teachers also often humiliate female students and solicit sexual favors in exchange for good grades. Prosecution and punishment of all forms of GBV, victim reporting, and community awareness of the laws are low; attitudes of male superiority as well as perceptions of woman beating as being a part of the culture persist even at the investigation levels, and support services for victims of violence are extremely limited.

Like their contemporaries around the world, Ethiopian women expend more time than men in providing uncompensated labor both in rural and urban areas including on community, domestic and caretaking work. Thus, women and girls expended less time on learning activities such as consulting information sources and media and have less leisure-time for activities such as recreation, cultural events, and sports.

Dimension 4: Economic Status

Ethiopian women have one of the highest rates of economic participation in the world but it is still lower than Ethiopian men's. In almost all employment sectors, average male earnings outpaced women. Work associated with men and masculinity also often remains out of reach to women.

Dimension 5: Access to Resources

Ethiopian women own property at a lower rate than men. Rural women have more access to assets such as land and housing compared to urban women, but the latter have more access to personal assets including radios, computers, cars, computers, and timesaving appliances as well as better facilities such as toilets in their residences. The control of assets was also gendered, with women in both rural and urban settings exercising more control over small-scale assets while men exerted control over vehicles and farm equipment.

Although official sex-disaggregated data does not yet exist, new efforts are underway to extend credit to women, to bolster their savings, and to provide loans for small business development. The gains are modest, however, with women reporting limited access to credit and reporting low savings.

In the last three years, Ethiopia's female mobile users have grown, recently constituting 20% of new mobile subscribers. In light of the recent explosion of mobile use in the country and of female users, updated information is needed to understand women's ownership and use patterns better.

Little is know about women's use of railroads and other transportation infrastructure since there is no sex-disaggregated data available. Similarly, official sex-disaggregated data regarding women's access to electricity is scarce. However, some studies of women's use of energy for some uses show that women bear the burden of domestic work, especially food preparation, which puts them in charge of gathering of energy sources such as firewood and consumes much of women's time.

Dimension 6: Women's Agency

Over the past decade, female political participation in Ethiopia has been rising. In the 2015 fifth general election cycle, 21.8% of the candidates running for office were women. During the fourth general election cycle, the share of women who held seats in parliament was 25.5%.

In the last decade, rural women's average number of children has decreased from 7.0 to 4.6, while that of urban women has decreased from 5.2 to 2.3 children. The decline in fertility rates is largely due to the dissemination of contraceptives throughout the country. The government is the major provider of modern contraceptives and the most common method for all women was injectables, although use of other forms of birth control, such as IUDs and implants is rising. Improved access to contraceptives decreases the number of unintended pregnancies for Ethiopian women. Nonetheless, in the event of unwanted pregnancy, Ethiopian women have limited recourse. Abortion is illegal in Ethiopia, with few exceptions. The lack of safe and legal abortion means that six in 10 abortions in Ethiopia are unsafe.

Dimension 7: Opportunity and Capability

Ethiopian women's literacy rates are lower than those of their male counterparts. Nonetheless, over the course of the last decade, the country has made strides in educating young women and girls, increasing their literacy rate to 70%. Literacy among older women is very low at 18%. Poor women, rural women and women in Afar and Somali regions had the lowest literacy rates.

Boys and girls' net enrollment rates in primary education have been converging in the last five years, although regional variations abound. In Tigray, Afar, Amhara, and Dire Dawa, net female enrollment rate exceeded that of boys while in Afar, Oromiya, Somali, Benishangul-Gumuz, SNNP, Gambella, Harari, and Addis Ababa it was below that of boys.

Boys' repetition rate at the primary level was higher than girls,' underscoring the fact that if provided the opportunity; girls stay and do well in school. Meanwhile dropout rates showed variation; whereas in Tigray, Amhara Benishangul-Gumuz, and Gambella, boys dropped out at a higher rate than girls, in Afar, SNNP, Harari, and Dire Dawa, the converse was true. The Afar region had the highest dropout rate for girls. Primary level dropout rates also vary by grade level; in 2012/13, grades 1, 5, and 8 had the highest dropout rates. Despite the importance of this information for learning at which point girls begin to disappear from the science and technology the stream overall, this data is not sex-disaggregated.

While the gender gap has not been fully eliminated at the secondary education level, girls' enrollment is quickly catching up to and even surpassing boys'. Despite the continuing improvement of the gender gap in enrollment, differences in the educational attainment of urban and rural women persist at the secondary education level.

Female enrollment in TVETs remains almost equal to men's but higher education institutions have not made great strides in closing the gender gap.

Data regarding women's access to on-the-job, staff-specialized training is limited to urban areas but, in that context, females have less access to training than males.

Dimension 8: Women in Knowledge Society Decision-Making

The share of women in knowledge society decision-making in Ethiopia is low, although the number of Ethiopian women in managerial positions varies by sector. Unsurprisingly, women had higher representation in the hospitality and retail sector while they were poorly represented in academic leadership positions.

There is no sex-disaggregated data available regarding the share of business with 35% or more women in decision-making positions.

Dimension 9: Women in the Knowledge Economy

There are few women in technical and professional positions in Ethiopia. In 2013, women accounted for a little over 30% of the total professional workers. The gender gap was closing in the health field and, perhaps surprisingly, information and communications technology. By contrast, women were barely present among science and engineering professionals. In managerial positions, women made up a little over a quarter of the share, although they were hardly present among chief executives, senior officials, and legislators. On the other hand, women's share in the hospitality, retail, and other service industries was high. At the level of technical positions, women were better represented in sectors such as health, in part driven by the large number of health extension workers who are majority women. In the information and communication sector, women also did well, constituting over a quarter of the labor force, although in some highly technical subsectors they were hardly present.

Women were 32% of the agricultural sector's skilled labor force and 65% of the service and sales sector, females made up 65% of the labor force. While women's participation in the

burgeoning industrial sector continues to grow, it is also marked by gender stereotypes, with women participating in work considered "feminine" while underrepresented in most other sectors. Among professional, scientific, and technical workers in the industrial sector, women reached 30% of the labor force although they were missing from some industrial professional jobs such as architecture, engineering, and technical testing and analysis.

Women's participation as the information technology workforce is growing in Ethiopia, making up 37% of the labor force, with the computer, electronic, and optical manufacturing business showing significant female employment. Non-manufacturing related information technology fields such as publishing/programming/broadcasting, computer programming, as well as consultancy and information services have close to or over half female employees while telecommunication lagged behind. Despite low numbers of women in the telecommunication sector, Ethio Telecom, the largest ICT provider in the country and a major employer and entryway of women in ICT careers, has made a concerted effort to increase the number of its female employees and has reached 25% female employment. There are stereotypical gender workplace patterns, however, with women accounting for almost all of assistant and cleaning positions and making up a vast majority of sales representatives. Few women reached the highest levels of the organization.

Dimension 10: Women in Science, Technology, and Innovation (STI) Systems

The new 70:30 intake ratio of science and technology to social and humanities sciences for all universities is increasing the share of Ethiopian women in science and technology programs, which in 2013 reached 27%. While the 70:30 intake ratio is boosting the presence of both women and men in the sciences, there is a lack of current sex-disaggregated data, particularly in terms of attrition and graduation rates. Older studies have shown, however, that women face challenges in the STEM fields including negative reception by their peers and administrators' and faculty members' beliefs of women's genetic incompetence in these fields. Female students also pointed to weak academic backgrounds, absence of female mentors, and a lack of support from instructors as challenges they face in entering STEM fields.

There is limited data on the number of women scientists and engineers in Ethiopia, although a 2014 study at the 13 new public universities found that women are grossly underrepresented among scientists and engineers in various departments where 80% of the faculty was male. There were no PhD holding women in either Engineering and Technology or the Health and Medical Sciences schools.

Very little information exists on the share of women researchers, their level of productivity or the challenges they face in Ethiopia. Although there is a dearth of sex-disaggregated data on the trends of publication and patents for innovation in Ethiopia, women seem to rarely publish, patent, and innovate due to prevailing beliefs that science is not a suitable field for women and to the time constraints of domestic responsibilities. Furthermore, despite the 70:30 science and technology university enrollment policy, more women still tend to gravitate toward the social sciences, severely limiting the pool of women who can be trained as science and technology innovators and researchers.

Although Ethiopia is a country with high rates of migration, there is no information about the gender trends in brain drain of highly skilled fields. No information exists on the number of women-run enterprises in sector value chains either.

Dimension 11: Women and Lifelong Learning

In Ethiopia, Ethio Telecom has established knowledge centers in villages and towns and it has been promoting women's use of them but no official data exists yet on women's use patterns.

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