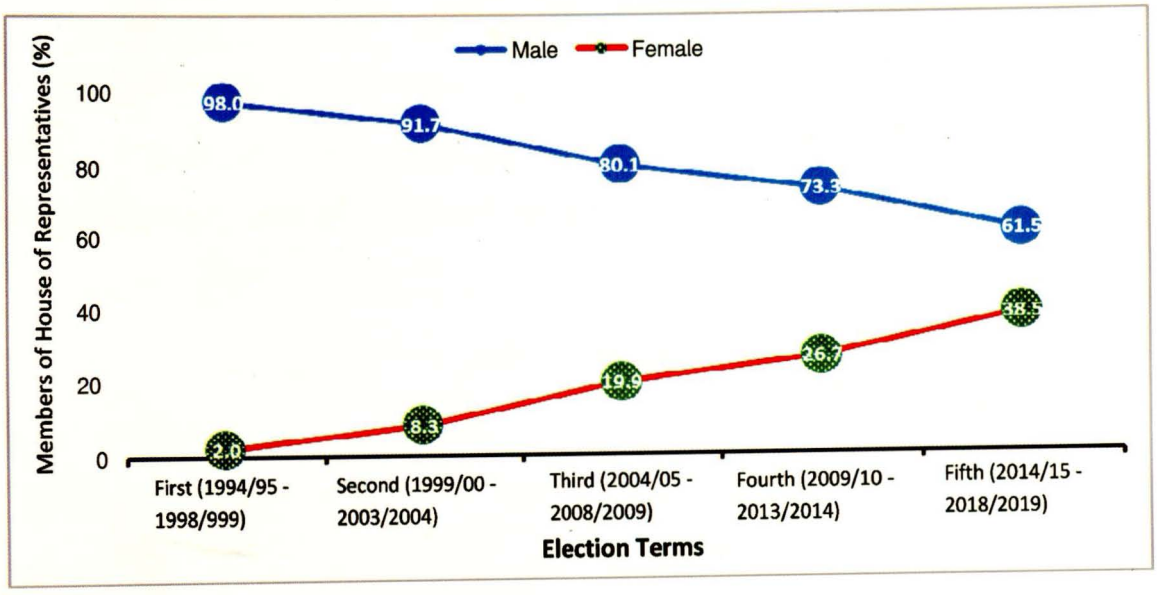
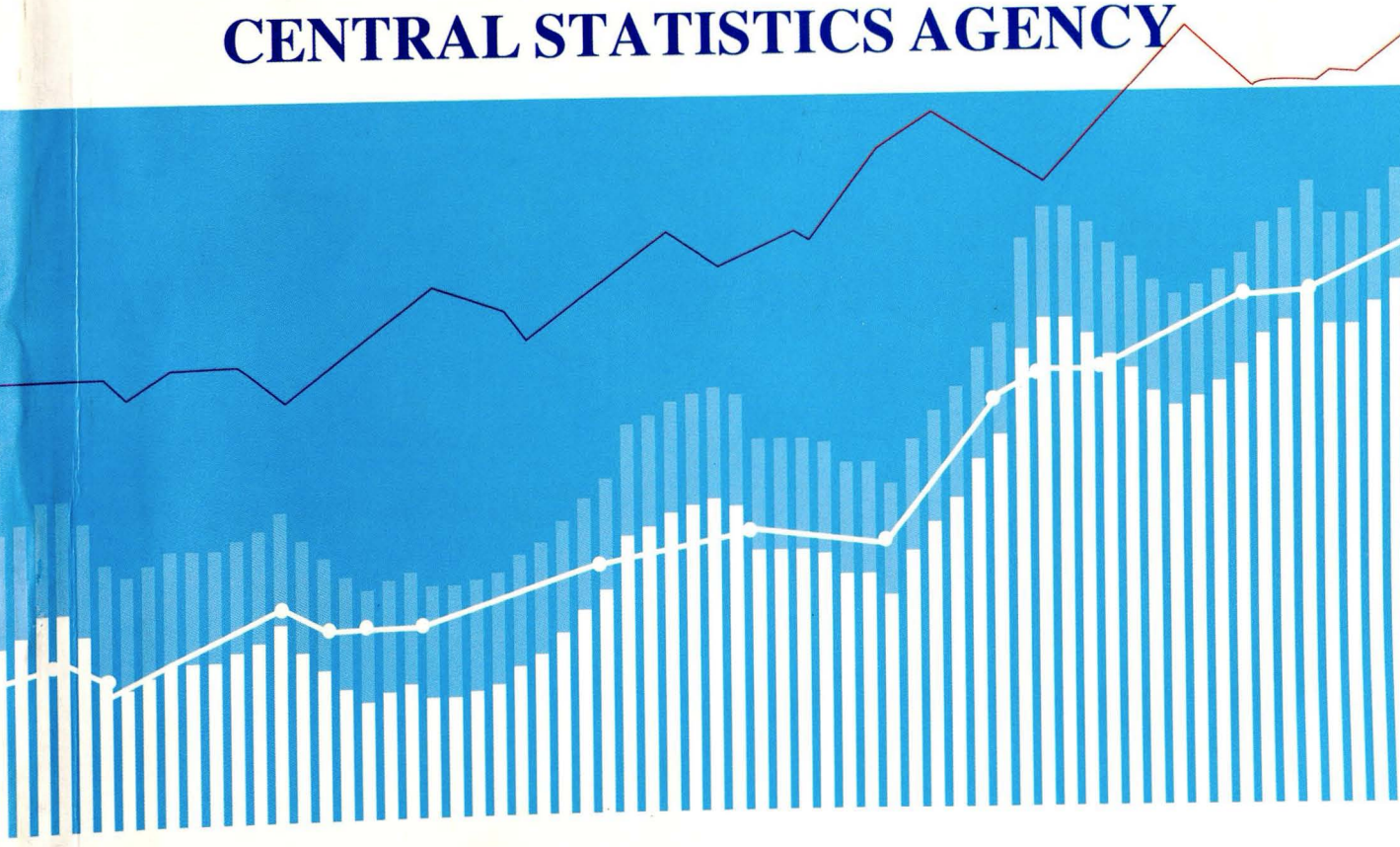
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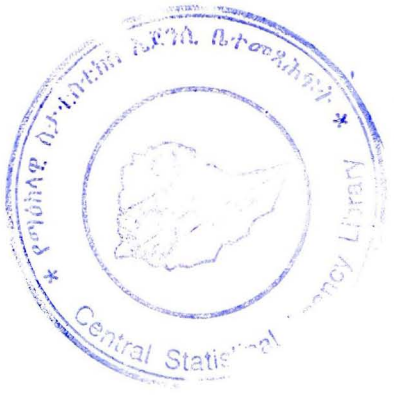
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December 2019

Addis Ababa, Ethiopia

Regional-Level Gender Disaggregated Data Mining and Analysis Report

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Contents

Acknowledgement xvi

Acronyms and Abbreviations xvii

Executive Summary xx

1. Introduction 1

1.1. Background 1

1.2. Purpose and objectives 2

1.3. Approach and Methodology 3

1.3.1. Approach 3

1.3.2. Methodology 10

2. Literature Review 15

2.1. Gender 15

2.2. Gender Statistics 17

2.3. Gender Indicators 20

2.4. Gender Issues in Ethiopia 21

3. Labor Force, Time Use and Manufacturing Industries 26

3.1. Labor Force 26

3.2. Child Labor Force 46

3.3. Time Use 55

3.4. Manufacturing Industries 63

4. Agriculture 88

4.1. Agricultural Holding 88

4.2. Access to Agricultural Services 97

4.3. Access to Inputs 103

4.4. Crop Production 112

4.5. Women Participation in Agricultural Activities and Decision Making 116
4.6. Livestock Production 124
5. Power and Decision Making 130
6. Education 139
6.1. Education Access and Coverage 139
6.2. Education Internal Efficiency (Flow Rates) 161
6.3. Students and Teachers 172
7. Demography and Health 180
7.1. Population 180
7.2. Fertility and Family Planning 184
7.3. Child and Adult Nutrition 187
7.4. Child and Adult Mortality 193
7.5. HIV/AIDS and Sexual Activity 199
7.6. Violence Against women 206
8. Water, Sanitation and Electricity 208
9. Conclusion and Recommendations 213
9.1. Conclusion 213
9.2. Recommendations 224
Bibliography 226
Annex 1: Availability of Gender Disaggregated Indicators with in NSS 229
Annex 2: The Minimum Set of Gender Indicators 243
Annex 3: Tables for Some Indicators in Absolute Number Figures 246
Annex 4: Formula use for Gender indicators in Education and Health 251
Annex 5: List of Contact Persons at Federal Ministries and Regional Bureaus 256

List of Table

Table 3-1: Labor force participation rate of age 15 and above by sex, region and survey years 28

Table 3-2: Percentage of employed population in the formal economy by sex, region and years 30

Table 3-3: Percentage of labor participation rate in the informal economy by sex, region and years 31

Table 3-4: Working children (% of children ages 7–14) by sex, region and survey years..... 32

Table 3-5: Wage and salaried workers (% of employed ages 15+) by sex, Region and Survey Years 34

Table 3-6: Self-employed persons (% of employed ages 15+) by sex, region and survey years 35

Table 3-7: Unpaid family workers (% of employed ages 15+) by sex, region and survey years 36

Table 3-8: Employment in agriculture (% of employed ages 15+) by sex, region and survey years 38

Table 3-9: Employment in industry (% of employed ages 15+) by sex, region and survey years 39

Table 3-10: Employment in service (% of employed ages 15+) by sex, regions and survey years 40

Table 3-11: Unemployment rate age 15 and above by sex, region and survey years..... 41

Table 3-12: Youth unemployment rate (% of labor force ages 15–24) by sex, regions and survey years 42

Table 3-13: Percentage of employed population aged 15 and over by sex, region and occupation-2013..... 44

Table 3-14: Time Spent (Average Hours per Week) of currently employed population aged ten years and above by sex, region and years 46

Table 3-15: Distribution of children (age 5-17 years) by activity status, sex and Region- Year 2015..... 47

Table 3-16: Percentage of children aged 5-17 by activity status (working/attending school), sex and region- year 2015 49

Table 3-17: Percentage distribution of children by number of hours spent in housekeeping activities per week by sex and region 53

Table 3-18: Percentage of children age 7-18 by sex, educational attainment and Region 55

Table 3-19: Percentage distribution of average time spent (minute in a 24-hour average day) in various major activities by sex and region and Years, 2013..... 58

Table 3-20: Distribution of average time spent (minute in a 24-hour average day) by sex, Age and region -year 2013 60

Table 3-21: Percentage distribution of Extended-SNA between domestic services, care services and community services by sex, age and region- year 2013..... 62

Table 3-22: Distribution of ownership of Large and Medium Scale Manufacturing Industries by Sex, Region and Years 65
Table 3-23: Private Ethiopian initial capital (in thousand birr) in large & medium scale manufacturing industries by sex of owners and years 66
Table 3-24: Number of persons engaged in large and medium scale industries by sex, region and years 67
Table 3-25: Number of employee in large and medium scale industries by sex and industrial group, 2015/16 G.C 68
Table 3-26: Number of employee in large and medium scale industries by sex and industrial group, 2014/15 G.C 69
Table 3-27: Number of employee in large and medium scale industries by sex and industrial group, 2013/14 G.C 70
Table 3-28: Number of employee in large and medium scale industries by sex and industrial group, 2012/13 G.C 71
Table 3-29: Number of employee in large and medium scale industries by sex and industrial group, 2011/12 G.C 72
Table 3-30: Percentage distribution of ownership of small scale manufacturing industries by sex, region and years 73
Table 3-31: Number of persons engaged in small scale manufacturing industries by sex, region and years 75
Table 3-32: Distribution of private Ethiopian initial capital (in thousand birr) in small scale manufacturing industries by sex of owners, region and years 75
Table 3-33: Number of employee in small scale by sex and selected industrial group, Region, 2015/16 G.C 76
Table 3-34: Number of employee in small scale by sex and industrial group, 2014/15 G.C ... 77
Table 3-35: Number of employee in small scale by sex and industrial group, 2013/14 77
Table 3-36: Number of trade establishments ownership by sex, region and years 79
Table 3-37: Number of persons engaged in trade establishments by sex, region and years 80
Table 3-38: Percentage distribution of persons engaged in wholesale, retail sales and motor vehicles sales & maintenance trade by sex, region, and trade type, 2013/14 G.C 82
Table 3-39: Percentage distribution of persons engaged in wholesale, retail sales and motor vehicles sales & maintenance trade by sex, region, and trade type, 2010/11 G.C 83
Table 3-40: Percentage distribution of employee in wholesale, Retail sales and Motor Vehicles Sales & Maintenance trade by sex, region and trade type, 2013/14 G.C 84
Table 3-41: Percentage distribution of employee in wholesale, retail sales and motor vehicles sales & maintenance trade by sex, region and trade type, 2010/11 G.C 86
Table 3-42: Percentage of benefited people from small scale enterprise by sex, region and year 87
Table 4-1: Percentage distribution of agricultural holders by sex, regions and survey years 90

Table 4-2: Distribution of agricultural holders in only crop production by sex of holder, region and survey years 92
Table 4-3: Distribution of agricultural holders in livestock productions by sex of holder and survey years 93
Table 4-4: Distribution of agricultural holders in both crop and livestock productions by sex of holder, region and survey years 95
Table 4-5: Percentage distribution agricultural holders land ownership size by sex of holder, region and survey years 96
Table 4-6: Distribution of agricultural holder having access to agricultural advice services by sex and region and survey years 98
Table 4-7: Distribution of agricultural holder having access to agricultural credit by sex, region and survey years 99
Table 4-8: Percentage distribution of extension users by sex of holder, region and survey years 101
Table 4-9: Percentage distribution of agricultural holder having enough oxen ownership by sex of holder, region and survey years 102
Table 4-10: Percentage distribution of agricultural holder who used improved seed by sex of holder, region and survey years 104
Table 4-11: Percentage distribution of agricultural holder who used inorganic fertilizer by sex of holder, region and survey years 105
Table 4-12: Percentage distribution of agricultural holder who used pesticide by sex of holder, region and survey years 107
Table 4-13: Percentage distribution of irrigation users by sex of holder, region and survey years 108
Table 4-14: Distribution of agricultural holders with soil and water conservation practice by sex, region and survey years 109
Table 4-15: Distribution of agricultural holders with community watershed management practice participation by sex, region and years 111
Table 4-16: Percentage Distribution of agricultural holders in grain crop production by sex of holders, region and survey years 113
Table 4-17: Percentage distribution of agricultural production in cereals production by sex of holders, region and survey years 115
Table 4-18: Percentage distribution of agricultural holders in pulses production by sex of holder, region and years 115
Table 4-19: Percentage distribution of agricultural holders in oilseed production by Sex of holders, regions and survey year 116
Table 4-20: Percentage distribution of agricultural holders reported the household members mostly participated household in crop production and livestock rearing by sex, agricultural type and region, 2015/16 118

Table 4-21: Percentage distribution of agricultural holders reported responsible mostly household members for the sale of agricultural produce by sex and region , 2015/16 120
Table 4-22: Percentage distribution of agricultural holders reported responsible household members for purchasing agricultural inputs by sex and region, 2015/16 121
Table 4-23: Percentage distribution of agricultural holders reported the household members that mostly decides on the use income from the sale of crop, livestock and livestock products by sex of the household member and region, 2015/16 123
Table 4-24: Percentage distribution of agricultural holders livestock's ownership by type of livestock, Sex of agricultural holders and Region, ESS 2011/12 125
Table 4-25: Distribution of agricultural holders livestock ownership by type of livestock, Sex agricultural holders and Region, Country Total, ESS 2013/14 127
Table 4-26: Distribution of agricultural holders by type of livestock, Sex and Region, ESS 2015/16 129
Table 5-1: Percentage of civil servant by sex, region and year 131
Table 5-2: Percentage of voters by sex, region and election year 132
Table 5-3: Number of police staff by sex, region and year 134
Table 5-4: Percentage of members of house of representatives by sex, region and election term 135
Table 5-5: Number of judges by sex, region and year 137
Table 5-6: Percentage of prosecutors by sex, region and year 138
Table 6-1: Pre-primary (KG) GER by sex, region and years 141
Table 6-2: Pre-primary (KG) NER by sex, region and years 143
Table 6-3: Grade 1 gross enrolment rate (%) by sex, region and years 144
Table 6-4: Primary first cycle (1-4) gross enrolment rate (%) by sex and years 145
Table 6-5: Primary first cycle (1-4) net enrolment rate (%) by sex, region and years 147
Table 6-6: Primary second cycle (5-8) gross enrolment rate (%) by sex, region and years . 148
Table 6-7: Primary second cycle (5-8) net enrolment rate (%) by sex, region and years..... 150
Table 6-8: Primary cycle (1-8) gross enrolment rate (%) by sex, region and years 151
Table 6-9: Primary cycle (1-8) net enrolment rate (%) by sex, region and years 152
Table 6-10: Secondary school (9-10) Gross Enrollment rate (%) by sex, region and years... 154
Table 6-11: Secondary school (9-10) Net Enrollment rate (%) by sex, region and years 155
Table 6-12: Preparatory school (11-12) Gross Enrollment rate (%) by sex, region and years 156
Table 6-13: Preparatory school (11-12) Net Enrollment Rate NER (%) by sex. region and years 157
Table 6-14: Grade one Apparent Intake Ratio (AIR) by sex, Region and Years 159
Table 6-15: Grade one Net Intake Ratio (NIR) by sex, Region and Years 160
Table 6-16: Literacy rate (%) by sex, region and years 161
Table 6-17: First cycle (1-4) promotion rate by sex, region and Years 163
Table 6-18: Second cycle (5-8) promotion rate by sex, region and years 164

Table 6-19: Primary (1-8) promotion rate by sex, region and years 165
Table 6-20: First cycle (1-4) dropout rate by sex, region and years 167
Table 6-21: Second cycle (5-8) dropout rate by sex, region and Years 168
Table 6-22: Primary (1-8) dropout rate by sex, region and years 169
Table 6-23: Grade one dropout rate by sex, region and Years 171
Table 6-24: Grade one survival rate by sex, region and years 172
Table 6-25: Percentage of students admitted to preparatory school (11-12) by sex, region and years 173
Table 6-26: Percentage of students enrolled in TVET by sex, region and years 174
Table 6-27: Percentage of Teachers in TVET by sex, region and year 175
Table 7-1: Sex ratio of population by age group of Ethiopia: 1994 and 2007 182
Table 7-2: Percentage of population by sex, region and census Years 182
Table 7-3: Percentage of married women using a modern contraceptive method by region and year 186
Table 7-4: Percentage of children under age five who are stunted by sex, region and year. 189
Table 7-5: Percentage of children under age 5 who are wasted by sex, region and year 190
Table 7-6: Percentage of female and male aged 15-49 who are overweight or obese according to BMI (>=25.0) by Region and year 192
Table 7-7: Percentage of women and men aged 15-49 with Anemia by regions and years. 193
Table 7-8: Maternal mortality ratio expressed per 1,000 woman-years of exposure by region 195
Table 7-9: Percentage of women age 15-49 who received antenatal care (ANC) by Region 196
Table 7-10: Percentage of full-immunized children by sex, region and year 198
Table 7-11: Adult Mortality (Age 15-49) rate per 1000 Population by sex, region and year 199
Table 7-12: Prevalence of HIV, female and male aged 15-24 interviewed and tested, get HIV positive by region 200
Table 7-13: Percentage of female and male of all ages among tested who are with HIV positive by Region and Years, Country Total 202
Table 7-14: Percentage of female and male age 15-49 with Comprehensive knowledge about HIV by region 203
Table 7-15: Percentage of female and male aged 15-49 having sex with multiple partner in the past 12 months prior to each survey by sex and region 204
Table 7-16: Percentage of female and male aged 15-49 having sex before age 15 by Region and Years 205
Table 7-17: Percentage Distribution of women age 15-49 who are circumcised by region and year 207
Table 8-1: Percent distribution of households with access to drink water by sex of household head, region and years 209

Table 8-2: Percentage distribution of households with access to improved sanitation by sex of household head, regions and years 211
Table 8-3: Percentage distribution of households with access to electricity by sex of household head, region and year 212

List of Figures

Figure 1-1: Concepts and Definitions 3
Figure 3-1: Labor Force Participation Rate of Age 15 and above by Sex and Survey Years, Country Level 27
Figure 3-2: Percentage of employed population in the formal economy by sex, Country Total 29
Figure 3-3: Percentage of employed population in the informal economy by sex, Country Total 30
Figure 3-4: Working children (% of children ages 7–14) by sex and survey years, Country Level 32
Figure 3-5: Wage and salaried workers (% of employed ages 15+) by sex and Survey Years, Country Level 33
Figure 3-6: Self-employed persons (% of employed ages 15+) by sex and survey years, Country Level 34
Figure 3-7: Unpaid family workers (% of employed ages 15+) by sex and Survey Years, Country Level 36
Figure 3-8: Employment in agriculture (% of employed ages 15+) by sex and survey years, Country Level 37
Figure 3-9: Employment in industry (% of employed ages 15+) by sex and survey years 38
Figure 3-10: Employment in service (% of employed ages 15+) by sex and survey years, Country Level 39
Figure 3-11: Unemployment rate age 15 and above by sex and survey years, Country Level . 40
Figure 3-12: Youth unemployment rate (% of labor force ages 15–24) by sex and survey years, Country Total 42
Figure 3-13: Percentage of employed population age 15 and over by sex and occupation-2013, Country Level 43
Figure 3-14: Time Spent (Hours Per Week) of currently employed population aged ten years and above by sex and years, Country Total 45
Figure 3-15: Distribution of children (age 5-17 years) by activity status and sex, Country Level- Year 2015 47
Figure 3-16: Percentage of children aged 5-17 by activity status (working/attending school) and sex, Country Total- year 2015 48
Figure 3-17: Percent of children aged 5-17 years who participated in economic activity in the last 12 months by Sex-Year 2015 50
Figure 3-18: Distribution of children 5-17 years by hours worked per week by sex and Region 51
Figure 3-19: Distribution of children by number of hours spent in housekeeping activities per week by sex, Country level 52
Figure 3-20: Percent of children involved in Hazard Work by sex and region 54

Figure 3-21: Percentage of children age 7-18 by sex and educational attainment, Country Total 54
Figure 3-22: Distribution of average time spent (minute per day) for age 18 and above in various major activities by sex, Country Total-year 2013 57
Figure 3-23: Distribution of average time spent (minute in a 24-hour average day) in various major activities by sex and Age, Country Total-year 2013 59
Figure 3-24: Percentage distribution of Extended-SNA between domestic services, care services and community services by sex and age, Country Total- year 2013 61
Figure 3-25: Distribution of ownership of large and medium scale manufacturing industries by sex and years, Country Level 64
Figure 3-26: Percentages of persons engaged in large and medium scale industries by sex and years, County Total 66
Figure 3-27: Percentage distribution of ownership of small scale manufacturing industries by sex and years, country level 73
Figure 3-28: Percentage distribution of persons engaged in small scale manufacturing industries by sex and years, country level 74
Figure 3-29: Percentages of trade establishments ownership by sex and years, County Total . 78
Figure 3-30: Percentages of persons engaged in trade establishments by sex and years, County Total 79
Figure 3-31: Percentage distribution of persons engaged in wholesale, retail sales and motor vehicles sales & maintenance trade by sex and trade type, Country Total, 2013/14 G.C 81
Figure 3-32: Percentage distribution of persons engaged in wholesale, retail sales and motor vehicles sales & maintenance trade by sex and trade type, Country Total, 2010/11 G.C 82
Figure 3-33: Percentage distribution of employee in wholesale, retail sales and motor vehicles sales & maintenance trade by sex and trade type, Country Total, 2013/14 G.C .. 84
Figure 3-34: Percentage distribution of employee wholesale, retail sales and motor vehicles sales & maintenance trade by sex and trade type, Country Total, 2010/11 G.C .. 85
Figure 3-35: Percentage of benefited people from small scale enterprise by sex & year, Country Total 86
Figure 4-1: Distribution of agricultural holders by sex and survey years, Country Totals 89
Figure 4-2: Average distribution of agricultural holders by type of holding and sex for the five years, 2013/14-2017/18, Country Level 91
Figure 4-3: Percentage distribution of agricultural holders in only crop production by sex of holder and survey years, Country Total 91
Figure 4-4: Distribution of agricultural holders in livestock productions by sex of holder and survey years, Country Total 92
Figure 4-5: Distribution of agricultural holders in both crop and livestock productions by sex of holder and survey years, Country Total 94

Figure 4-6: Percentage distribution agricultural holders by land holding, sex of holder and survey years, Country Total 96
Figure 4-7: Distribution of agricultural holders having access to agricultural advice services by sex and survey years, Country Level 97
Figure 4-8: Distribution of agricultural holder having access to credit by sex and survey years, Country Total 99
Figure 4-9: Percentage distribution of extension users by sex of holder and survey years, Country Total 100
Figure 4-10: Percentage distribution of agricultural holder having enough oxen ownership by sex of holder and survey years, Country Total 102
Figure 4-11: Percentage distribution of agricultural holder who used improved seed by sex of holder and survey years, Country Total 103
Figure 4-12: Percentage distribution of agricultural holder who used in organic fertilizer by sex of holder and survey years, Country Total 104
Figure 4-13: Percentage distribution of Agricultural holder who used pesticide by sex of holder and Survey years, Country Total 106
Figure 4-14: Percentage distribution of irrigation users by sex of holder and survey years, Country Level 108
Figure 4-15: Distribution of agricultural holders with soil and water conservation practice by sex and survey years, country level 109
Figure 4-16: Distribution of agricultural holders with community watershed management practice participation by sex and years, Country level 110
Figure 4-17: Percentage distribution of agricultural holders in grain crop production by Sex of holders, and survey years, country level 112
Figure 4-18: Percentage distribution of agricultural holders producing cereals, pulse and oil seed crops by sex 114
Figure 4-19: Percentage distribution of agricultural holders reported household members mostly participated household crop production and livestock rearing by sex, main season 2015/16 117
Figure 4-20: Percentage distribution of agricultural holders reported household member who involve mostly in selling crops & livestock, 2015/16 119
Figure 4-21: Percentage distribution of agricultural holders reported household member who involve mostly in purchasing agricultural inputs, Country Level 2015/16 121
Figure 4-22: Percentage distribution of agricultural Holders reported the household members that mostly decides on the use of income by sex of the household member at national level, 2015/16. 122
Figure 4-23: Percentage distribution agricultural holder's livestock ownership by sex of agricultural holders, Country Total, ESS 2011/12 124
Figure 4-24: Distribution of agricultural holders livestock's ownership by type of livestock and Sex of agricultural holders , Country Total, ESS 2013/14 126

Figure 4-25: Distribution of agricultural holders' livestock ownership by type of livestock and Sex of agricultural holders, Country Total, ESS 2015/16 128
Figure 5-1: Percentage of civil servant by sex and year, Country Level 130
Figure 5-2: Percentage of voters by sex and election year, Country Total 132
Figure 5-3: Percentage of police staff by sex and year, Country Level 133
Figure 5-4: Percentage of members of house of representatives by sex & election term, Country Total 134
Figure 5-5: Percentage of minister cabinets by sex and year, Country Total 136
Figure 5-6: Percentage of judges by sex and year, Country Total 136
Figure 5-7: Percentage of prosecutors by sex and year, Country Total 137
Figure 6-1: Pre-primary (KG) GER by sex and years, Country Total 141
Figure 6-2: Pre-primary (KG) NER by sex and years, Country Total 142
Figure 6-3: Grade 1 gross enrolment rate (%) by sex and years, Country Total 143
Figure 6-4: Primary first cycle (1-4) gross enrolment rate (%) by sex and years, Country Total 145
Figure 6-5: Primary first cycle (1-4) net enrolment rate (%) by sex and years, Country Total 146
Figure 6-6 : Primary second Cycle (5-8) gross enrolment rate (%) by sex and years, Country Total 148
Figure 6-7: Primary second cycle (5-8) net enrolment rate (%) by sex and years, Country Total 149
Figure 6-8: Primary cycle (1-8) gross enrolment rate (%) by sex and years, Country Total. 150
Figure 6-9: Primary cycle (1-8) net enrolment rate (%) by sex and years, Country Total 152
Figure 6-10: Secondary school (9-10) Gross Enrollment rate (%) by sex and years, Country Total 153
Figure 6-11: Secondary School (9-10) Net Enrollment rate (%) by sex and years, Country Total 154
Figure 6-12: Preparatory school (11-12) Gross Enrollment Rate (%) by sex and years, Country Total 156
Figure 6-13: Preparatory school (11-12) Net Enrollment rate (%) by sex and years, Country Total 157
Figure 6-14: Grade one Apparent Intake Ratio (AIR) by sex and years, Country Total 158
Figure 6-15: Grade one Net Intake Ratio (NIR) by sex and years, Country Total 159
Figure 6-16: Literacy rate (%) by sex and years, Country Total 160
Figure 6-17: First cycle (1-4) promotion rate by sex and years, Country Total 163
Figure 6-18: Second cycle (5-8) promotion rate by sex and years, Country Total 164
Figure 6-19: Primary (1-8) promotion rate by sex and years, Country Total 165
Figure 6-20: First Cycle (1-4) dropout rate by sex and years, Country Total 166
Figure 6-21: Second cycle (5-8) dropout rate by sex and years, Country Total 167
Figure 6-22 : Primary (1-8) dropout rate by sex and years, Country Total 169

Figure 6-23: Grade one dropout rate by sex and Years, Country Total 170
Figure 6-24: Grade one survival rate by sex and years, Country Total 171
Figure 6-25: Percentage of students admitted to preparatory school (11-12) by sex and years, Country Total 172
Figure 6-26: Percentage of students enrolled in TVET by sex, Country Total 174
Figure 6-27: Percentage of teachers in TVET by sex and year, Country Total 175
Figure 6-28: Percent of students admitted to under graduate program by sex and year, Country Total 176
Figure 6-29: Percent of graduates in under graduate program by sex and year, Country Total 176
Figure 6-30: Percent of students admitted to post graduate (second degree) program by sex and year, Country Total 177
Figure 6-31: Percent of graduates in post graduate (second degree) program by sex and year, Country Total 177
Figure 6-32: Percent of students admitted to post graduate (Third degree) program by sex and year, Country Total 178
Figure 6-33: Percent of graduates in post graduate (Third degree) program by sex and year, Country Total 178
Figure 6-34: Percentage of teachers in Higher Education Institutions by sex and year, Country Total 179
Figure 7-1: Population Pyramid of Ethiopia, 1994 and 2007 181
Figure 7-2: Women Per 100 Men, Country Level 183
Figure 7-3: Women Per 100 Men by region and census years 183
Figure 7-4: Total Fertility Rate (Age 15-49) by region 185
Figure 7-5: Percentage of currently married women using a modern contraceptive method, Country Total 186
Figure 7-6: Percentage of married women aged 15-49 with satisfied demand for modern contraception method 187
Figure 7-7: Percentage of children under age five who are stunted by sex and year, Country Total 188
Figure 7-8: Percentage of children under age five who are wasted by sex and year, Country Total 190
Figure 7-9: Percentage of female and male aged 15-49 who are overweight or obese according to BMI (>=25.0) by year, Country Total 191
Figure 7-10: Percentage of female and male (aged 15-49) with anemia for the year 2011 and 2016 192
Figure 7-11: Maternal mortality ratio expressed per 1,000 woman-years of exposure, Country Total 194
Figure 7-12: Percentage of women aged 15-49 who received antenatal care (ANC), Country Total 196

Figure 7-13: Percentage of fully immunized children by sex and year, Country Total..... 197
Figure 7-14: Adult Mortality (Age 15-49) rate per 1000 Population by sex and year, Country Total 198
Figure 7-15: Prevalence of HIV, female and male aged 15-24 interviewed and tested, get HIV positive, Country Total 200
Figure 7-16: Percentage of female and male of all ages among tested who are with HIV positive by Years, Country Total 201
Figure 7-17: Percentage of female and male aged 15-49 with Comprehensive knowledge about HIV, Country Total 202
Figure 7-18: Percentage of female and male aged 15-49 having sex with multiple partner in the past 12 months prior to each survey by sex, Country Total..... 203
Figure 7-19: Percentage of female and male aged 15-49 having sex before age 15 by years, Country Total 205
Figure 7-20: Percentage of women age 15-49 who are circumcised by year, Country Total.. 206
Figure7-21: Percentage of women aged 15-49 who have experienced sexual violence in the 12 months preceding the survey and ever in 2016..... 207
Figure 8-1: Percentage distribution of households with access to drinking water by sex of household head and years, Country Level 208
Figure 8-2: Total time spent (in minute) by household in collecting water by sex and region, 2013..... 209
Figure 8-3: Percentage distribution of households with access to improved sanitation by sex of household head and years, Country Total 210
Figure 8-4: Percentage distribution of households with access to electricity by sex of household head and year, Country Total 212

Forward

The Central Statistics Agency (CSA) of Ethiopia is an organization delegated for production of official statistics in wider range of areas including gender statistics. In addition to producing statistical data from censuses and surveys, CSA explores and undertake data mining from the available administrative data sources, registers of the National Statistical System (NSS) and disseminate to end users.

The need for gender statistics is highly increasing for monitoring, evaluation and reporting of the national, regional and global plans and commitments. In response to the data demand, since the last few years, CSA started producing gender statistical reports from the surveys, censuses and administrative data.

The Regional Level Gender Disaggregated Data Mining and Analyses conducted in 2018 was to provide a comprehensive summary of regional level sex disaggregated data from the already existing data at CSA and some line ministries in the NSS. Reaching the wider data users with a better option of sex disaggregated data helps in tracing progresses, accelerate participation, identify bottlenecks and take responsive actions for gender equality and equity.

I am pleased to present the report on "Regional Level Gender Disaggregated Data Mining and Analysis" which is produced by the financial support of the World Bank through PBS III project by hiring Data Management and Information System Support PLC consulting firm through direct supervision and coordination of Gender Mainstreaming Directorate of CSA. The report provides users the status and extent of disparities/gaps between women and men at regional and national levels using the data from CSA and administrative sources.

Finally, the agency looks forward to working with our development partners and data users in our future endeavors of producing more gender statistical publications for public use.

Biratu Yigezu
Director General,
CSA, Ethiopia
Addis Ababa, December 2019

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Disclaimer

Any errors or mistakes that may be discovered in this report are those of the consulting firm and should not be considered as the views of CSA or the funding partners.

Acronyms and Abbreviations

AAMHSS	Addis Ababa Manpower and Housing Sample Survey
AgSS	Agricultural Sample Survey
AIR	Intake Ratio
ANC	Antenatal Care
BCG	Bacille Calmette-Guérin vaccine
BMI	Body Mass Index
BPA	Beijing Platform for Action
CEDAW	Convention on Elimination of all forms of Discrimination Against Women
CPRW	Convention on the Political Rights of Women
CSA	Central Statistical Agency
CSC	Civil Service Commission
DPT	Diphtheria, Pertussis, Tetanus
DTS	Distributive Trade Survey
EDHS	Ethiopia Demographic and Health Survey
EMIS	Education-sector Management Information System
EPHI	Ethiopian Public Health Institute
ERA	Ethiopian Roads Authority
ESDP	Education Sector Development Program
ESS	Ethiopian Socio-Economic Survey
FDRE	Federal Democratic Republic of Ethiopia
GER	Gross Enrollment Rate
GoE	Government of Ethiopia
GTP	Growth and Transformation Plan
HMIS	Health-sector Management Information System
HPR	House of People Representative
HSDP	Health Sector Development Program
IAEG-SDGs	Inter-Agency and Expert Group on SDG Indicators

IPV	Inactivated Polio Vaccine
KG	Kinder Garten
LFS	Labor Force Survey
LMSMIS	Large and Medium Scale Manufacturing Industries Survey
M&E	Monitoring and Evaluation
MCV	Measles Containing Vaccine
MDGs	Millennium Development Goals
MIS	Management Information System
MoAL	Ministry of Agriculture and Livestock
MoE	Ministry of Education
MoFEC	Ministry of Finance and Economic Cooperation
MOH	Ministry of Health
MoH	Ministry of Health
MoWCYA	Ministry of Women, Children and Youth Affairs
MoWIE	Ministry of Water, Irrigation and Energy
NAPGE	National Action Plan for Gender Equality
NCLFS	National Child Labor Force Survey
NCTPE	National Committee on Traditional Practice of Ethiopia
NCTPE	National Committee on Traditional Practice of Ethiopia
NEBE	National Election Board of Ethiopia
NER	Net Enrollment Rate
NGO	Non-governmental organizations
NGP	National Gender Program
NIR	Net Intake Ratio
NLFS	National Labor Force Survey
NNS	National Nutrition Strategy
NSS	National Statistical System
NWP	National Women Policy
OPV	Oral Polio Vaccine
PCV	Pneumococcal Conjugate Vaccine

PGNs	Practical General Needs
PHC	Population and Housing Census
PSNP	Public Safety-Net Program
RDPs	Rural Development Programs
SDGs	Sustainable Development Goals
SGNs	Strategic Gender Needs
SNA	System of National Account
SNNP	South Nation and Nationality People
SPHC	Survey on Population and Housing Characteristics
SSMIS	Small Scale Manufacturing Industry Survey
STDs	Sexually Transmitted Diseases
TFR	Total Fertility Rate
TOR	Terms of Reference
TUS	Time Use Survey
TVET	Technical and Vocation Education Training
UEUS	Urban Employment Unemployment Survey
UN	United Nations
WHO	World Health Organization
WIC	Women Information Center
WID	Women in Development

Executive Summary

The study reviews national and regional-level statistics on gender differences and inequalities in Ethiopia across a number of key areas: demographics and population; economy and employment, agriculture, education, health and nutrition, power and decision-making. For the purpose of analysis, data are obtained from different census and sectoral surveys conducted by the CSA, and databases/publications of the concerned ministries.

Labor Force, Time Use and Manufacturing Industry

- An increasing trend in the female participation in country's workforce has been observed from 71.9% (as reported in 1999) to 78.8% (in 2005), with a minor decrease in the year 2013 (77.8%). The female participation in the labor force of aged 15 years and above is gradually increased in Afar, Amhara and Oromia, across all the three years (1999, 2005 and 2013). A reverse trend (of decreasing female participation in the labor force) has been observed in Somali region and Addis Ababa city administration from 1999 to 2013.
- Female's participation in formal economy labor force increased by more than four folds' between 1999 (13.4%) and 2013 (75.9%) at the country level. Regionally, their participation in the formal economy has increased gradually across all the regions between 1999 and 2013. In the informal sector a higher participation of female observed in the labor force at the country level. Across all the regions and two city administrations, the employed population in the informal economy for female is reported declining as compared the year 1999 with that of 2013.
- At country level, female is largely engaged in unpaid family jobs rather than salaried employees or self-employment. The percentage of female as wage and salaried workers and self-employment increase between 1999 and 2013. Their representation as unpaid family workers also shows increment during the same time period.
- A decreasing trend in Tigray and Benishangul-Gumuz regions and an increase in Afar, Oromia, SNNP, Gambela, Harari and Addis Ababa city administration in female employed population (aged 15 years above) as wage and salaried workers is observed across the survey years (1999, 2005 and 2013). Male participation is more than female for self-employment, except that for Gambela region in 2005 (where 64% female are observed being self-

employed). A gradual increasing trend in the percentages of female unpaid-family workers is observed in Afar and Harari regions.

- While female employment, at country level, is less than that of male in agriculture and industry sectors, females are found fetching more employment in service sector than male between 1999 and 2013. Female employment in agriculture has decreased form from 44.5% in 2005 to 41.3% in 2013. In industry sector more females are employed in 1999 (57.5%) and in 2005 (58.1%) than male. For the year 2013 a relatively less female employed (47.6%) in the sector. On the other hand, females are found fetching more employment in service sector over their male counterparts during the survey periods (61.7% in 1999 and 63.1% in 2013).
- Across the region, female scored more employment in agriculture in Afar and Benishangul-Gumuz regions, unlike the other regions, between 2005 and 2013. A gradual decrease in female employment in industry has also been observed in Tigray, Oromia, Somali, Harari and Dire Dawa Administration across all the three years. With regard to female employment in services, Harari region alone shows gradual increase from 50.7% in 1999 to 59.1% in 2005 and 70% in 2013 (70%). However, female participation in service sector employment has increased between 2005 and 2013, except Addis Ababa city administration.
- Female unemployment has decreased across the survey years from 12.5% (1999) to 7.3% (2013) at country level. While a decreasing trend in female (aged 15 years and above) unemployment rate is well observed in the Amhara, Oromia, Somali, Harari and Addis Ababa City Administration, across the years, an increasing pattern is observed between 2005 and 2013 in Tigray and SNNP regions. Female youth unemployment also decreased from 17.2% in 1999 to 9.6% for the year 2013 at country level. A gradual decrease in female youth unemployment rates throughout the years observed in Afar, Oromia, Somali, Harari and Addis Ababa City Administration
- Female is more observed than male in occupations like service and sales workers (66%), clerical or supportive staff (64.9%), craft and related trade workers (51.2%) and elementary occupations (66.8%). Male dominates in occupations that deal with plant or machine staffs (85.7%), higher levels in organizational hierarchy like managers (73.5%), skilled agricultural, forestry and fishery workers (68%), professionals (67.7%) and technicians (67.1%).

- With respect children aged 5-17 labor force involvement, more male (61.9%) are reported to be engaged in economic activities (e.g., working), whereas female (57.8%) are more participated in non-economic activities (e.g., household duties) at country level. There remains variation across the regions in children participation being male and female in economic and non-economic activities.
- With respect to hours worked per week in economic activities, male children aged 5-17 spent more hours per week in economic activities than female. Female children are also engaged in working for more hours per week, as compared to their male counterparts in Addis Ababa City Administration, SNNP, and Somali as opposed to other regions.
- Female children, at country level, are appeared to be spent relatively longer hours than male across all the given housekeeping activities. Specifically, female children are observed to be more engaged in caring for sick (22%) and all other members (20%) than performing activities like cleaning (15.3%) and cooking (16.2%). Female children are also observed to be spending more hours per week in performing the given housekeeping activities across all the regions and two city administrations.
- While more male children are involved in performing works with hazard in the country, there remain some regions where high female participation is well observed. Specifically, female children are observed less performing the work with hazard than male in all regions except Addis Ababa City Administration (64.8% of female involved in hazard work).

Time Use

- At country level, female (367 minutes per day) are found spending much of their time on Extended SNA activities, as compared to men (213 minutes per day) and male are found to spend more time than female in SNA (System of National Account), learning and other non-productive activities (like personal care/maintenance, social life and leisure and others including traveling). Similarly, males are found more spending their time in performing SNA, learning and other non-productive activities in all regions and two city administrations except Oromia and Harari.

Manufacturing Industry

- Males are found owning more manufacturing industries (large and medium scale) than female in the country across all survey years. Moreover, female ownership in the large and medium scale manufacturing industries decreased from 32.9% in 2011/12 to 26% in 2015/16. However, some increase in female ownership is being observed from 2013/14 (26.9%) to 2014/15 (31.8%). Female ownership in large and medium scale manufacturing industries significantly increased between 2011/12 and 2015/16 in the regions like Benishangul-Gumuz (13.6% to 77%), SNNP (19.9% to 26.9%), Harari (11.8% to 14.8%) and Dire Dawa city administration (29.3% to 30.6%).

- Female engagement in the large and medium scale manufacturing industries decreased from 36.6% in 2011/12 to 35.2% in 2015/16 at country level. Their engagement is also increased between 2011/12 and 2015/16 in Afar (8.1% to 8.8%), SNNP (20.4% to 23.5%), Harari (23.4% to 34.9%) and Addis Ababa city administration (39.4% to 45.6%), while other regions reported some decrease in the female engagement in large and medium scale manufacturing industries.

- A decrease in the percentage of female ownership of small scale manufacturing industry, from 33.4% in 2013/14 to 22.5% in 2015/16 is observed, whereas an increase in the percentages of male owners is observed during the same period. Across all the regions and two city administrations, there appeared to be fewer female owners of small scale manufacturing industry, though their number got increased in the regions like Somali (35.2% to 41.3%) and Gambela (20.3% to 25%) between 2013/14 and 2015/16.
- Female engagement in small scale industries is less than male in the country. However, female engagement in small scale manufacturing industries increased between 2013/14 and 2015/16 in Tigray (46% to 53.5%), Afar (39.2% to 47.7%) and Harari (43.7% to 49.3%) whereas a decrease in their engagement is observed in other regions during 2013/14-2015/16.

- Male owners of trade establishments are more than female owners in the country for both 2010/11 and 2013/14. Moreover, female share in the ownership of trade establishments decreased from 34.7% in 2010/11 to 27.4% in 2013/14. However, female ownership is seen

with increasing trend between 2010/11 and 2013/14, particularly in the Addis Ababa region (33.4% to 36.6%).

Agriculture

- In Ethiopia the majority of agriculture is practiced by private small agricultural holders. For the last five agricultural survey years (2013/14-2017/18) on average about 81 percent of these agricultural holders are males, while the remaining 19 percent are female agricultural holders at national level. Comparing the regional distribution of agricultural holders by sex of the holder among the regions a higher percentage of female agricultural holders are found in Tigray and Gambella regions, 26.1% and 25.8 respectively on average for the last five years.
- About 84 percent of the agricultural holders are found engaged in both Crop and Livestock rearing activities. From the study results of the last five years it's revealed that female's agricultural holders who are engaged in both cultivating land and rearing of livestock are only about 14 percent.
- On average only 17% of the agricultural holders who reported holding agricultural land are females at national level. Among the regions, Tigray account a higher percentage of female in holding agricultural land on average 26% followed by Gambela and Somali regional states, 22.9% and 20.5%, respectively on average for the survey years.
- At national level less access of female agricultural holders to agricultural advices services and credit are observed (on average <15%) the last five years. The same result is also witnessed to agricultural holder access to agricultural extension services. Regionally on average a higher proportion of female agricultural holders are reported having access to agricultural advice in Gambela (25.8%) and Tigray regions (21.4%), compared to other regions. Female access to agricultural credit service reported to zero level in Afar region, Harari region and Dire dewa city administration by 2017/18 production year. Related agricultural extension, Tigray and SNNP regional states accounted a higher percentage of female extension users, on average 19.3% and 17.8% in their respective orders for the last five years.
- Female's use of improved seed, fertilizer and pesticides are found very minimal (each < 20%) at national level. The regional distribution of female in the use of improved seed,

fertilizer and pesticides also found minimal than male. Afar (24.9 %), Tigray (19.4 %), SNNP (16.8 %) and Somali (15.3 %) accounted on average a little higher percentage of female users of improved seed than the other regions in their respective order. Moreover, the percentages of female agricultural holders who used inorganic fertilizers are highest on average in Tigray (22.6 %) and lowest in Somali (8.3 %). In addition, for pesticides use in the last five years a higher percentage of female agricultural holders applying pesticides is observed in Dire Dawa, SNNP, Tigray and Oromia, 23.3%, 20.8%,14.9 % and 14.2% in their respective orders.

- Ownership of enough oxen by females on average constitutes highest in Afar (11.2%) followed by Oromia (10.6 %) and the least is in Dire Dawa (1.5%). Moreover, the average annual male irrigation users are much higher (87.5 %) during the last five years as compared with female irrigation users (12.5%). Regionally, the highest number of female irrigation users during the last five years is observed in Tigray and Afar regions.
- Soil and water conservation practice in Ethiopia found widely used by males as compared with their female counterpart during the survey years. Moreover, the participation of female agricultural holders in community watershed management practices also revealed very minimal as compared to their male counterpart. At regional level large proportion of female in soil and water conservation practices observed in Tigray region (23.7%) during the last five years, followed by SNNP (19.9 %) region. In community watershed management practices a higher average annual participation of female also observed in Tigray (20.3%) and Afar regions (19.8%), followed by SNNP (14%).
- Male agricultural holders are more than females in total crop output observed. Only 11% of the agricultural holders who report produced grain crops are found female holders nationally. The result across regions indicates that a higher percentage of female agricultural holders growing grain crops found in Gambela region (18.8%), followed by SNNP (15.9%) and Afar (13%).
- Male livestock ownership is also more than female in livestock ownership in all livestock types. Female agricultural holders found owning less livestock's for all type of livestock's in all regions. During the 2015/16 survey year, a relatively more female are found holding sheep in Somali (20.8%), Tigray (19.3.9%) and Afar (19.2%) regions. While the share of female for goats in Oromia (22.8%) and Benishangul (20.8%) regions.

Education

- The gross enrollment rate and net enrolment rate for girls in the pre-primary level remains lower than boys, from 2013/14 to 2016/17. However, by 2017/18 gross enrollment rate for girls (41.2%) exceeded that for boys (38.6%). An increasing trend has been observed in the pre-primary gross enrollment rate and net enrollment rate for both boys and girls between 2013/14 and 2017 /18, across all the regions, except in Addis Ababa City Administrations and Dire Dawa Administration for gross enrollment rate.
- Both gross enrollment rate and net enrollment rate in the first cycle (grade 1-4), second cycle (grade 5-8) and overall primary cycle (grade 1-8) for girls remain less, as compared to boys, at the country level between 2013/14 and 2017/18.
- high gross enrollment rate for boys than girls is observed in first cycle (grade 1-4) across all the regions and years. high gross enrollment rate for boys is also observed in second cycle in the majority of the regions except Amhara region (2013/14-2017/18) and Addis Ababa City Administration between 2014/15 and 2017/18 and in overall primary cycle (grade 1-8) across all the regions, except Addis Ababa between 2013/14 and 2017/18.
- High net enrollment rate for boys is noticed in first cycle (grade 1-4) in the majority of the regions except Addis Ababa City Administration across all survey years. However, high net enrollment rate for girls than boys in second cycle (grade 5-8) is observed in Tigray region, Amhara region and Addis Ababa City Administration between 2013/14 and 2017/18. high net enrollment rate for boys in the primary cycle (grade 1-8) is also observed in the majority of the regions except Tigray and Amhara in 2013/14 and Addis Ababa between 2013/14 and 2017/18
- Girls gross enrollment rate for both the secondary school (grade 9-10) and preparatory school (grade 11-12) is less than that of boys at the country level across all the reported years. However, there exists an increasing trend in gross enrollment for girls in the secondary school from 38% in 2013/14 to 45% in 2017/18 and in the preparatory school for girls increased from 9% to 12% between 2013/14 and 2017/18. While the girl gross enrollment rate in the secondary school is higher than boys in Addis Ababa City Administration and Tigray and Amhara regions, there appeared to be high gross enrollment rate for boys in the preparatory school across all the regions, except Addis Ababa for the last five years

general, there appeared to be relatively more male teachers in the TVET, as compared to female, across all the regions and reported year. In 2017/18, least percentage of female teachers in TVET is appeared in Afar and Harari regions (each 14%), while the highest is reported in Dire Dawa (43%)

- There appeared to be an increasing trend in the percentage of female graduates in the postgraduate (second degree) program (from 14.9% in 2013/14 to 19% in 2016/17), their representation is still below 20% against male postgraduates in the country. Similarly, female representation as postgraduate (third degree) student is much less than male and with decreasing trend (16.3% in 2013/14 to 13% in 2016/17).
- Female teacher in higher education institutions is very low (below 14%) across all the reporting years, though a minor increase has been observed from 11.7% in 2013/14 to 13.6% in 2016/17.

Demography and Health

- At the country level, the female population is marginally increased from 47.8% in 1994 to 48% in 2007. However, there remains relatively more male than female in the regions, except for Addis Ababa, Tigray and SNNP, whereby female commands over 50% population share in both 1999 and 2007 censuses.
- While minor increase in the female population as household head (from 22.2% in 1994 to 23.5% in 2007) has been observed at country level, a declining trend in their position (of household heads) appeared in the regions like Tigray, Somali and Harari.
- TFR at country level decreased from 5.5 children (2000) to 4.6 children's (2016) per women. Regionally a decreasing pattern in TFR also seen in most of the regions, except Somali (5.1 to 7.2) and Afar (4.4 to 5.5), where growth has been observed during the same period. Women's in Addis Ababa (1.8), Dire Dawa (3.1), Gambela (3.5) and Amara (3.7) maintain lower TFR during 2016.
- At country level the use of modern contraceptive methods among married women increased more than five times from 6.3% to 35.3% between the years 2000 and 2016. Among the regions, Addis Ababa (50.1%) maintains the highest score on the use of contraceptives methods followed by Amahara (46.9%) and SNNP (39.6%) regions by the year 2016.

- Girls NER in the secondary school (grade 9-10) is more than that of boys between 2013/14 to 2016/17. There appeared also high net enrollment rate for girls in the secondary school in Tigray region, Harari region, and Addis Ababa City Administration between 2014/15 and 2017/18. Moreover, equal net enrollment rate for both sexes is observed for the preparatory school during the reported years both at country level and across all regions.
- Male being as literate is more than female literate across all the four DHS surveys at the country level. Moreover, female literacy rate has declined between 2000 and 2016 more rapidly (50.8% to 35.1%) than that for male (52.3% to 41.4%). The majority of the literate persons are also male than female across all the regions. However, an increase in the literacy rate for female has been reported between 2000 and 2016 in the Tigray (17% to 51%), Amhara (16% to 45%), Oromia (15.3% to 37.3%), Benishangul-Gumuz (17% to 38.7%), SNNP (17.4% to 35.3%), and Gambela (19.8% to 50%).
- There appeared to be no difference between the two sexes in the promotion rate for first cycle (grade 1-4), the second cycle (grade 5-8) and overall primary cycle (grade 5-8) at country level during the reported years (2013/14 to 2016/17). there is also a high promotion rate for girls than boys in the primary cycle (grade 1-8) in Tigray and Amhara regions during the same period.
- At the country level no difference has been observed between the two sexes in the dropout rate for first cycle (grade 1-4). Girl is appeared to be maintaining higher dropout rate than boys in the second cycle students (grade 5-8) for all the reported years and in the primary cycle students (grade 1-8) for the years 2013/14 and 2015/16. Regionally, there appeared to be relatively higher dropout rate for girl than boys in the second cycle (5-8) across all the regions and reported years (2013/14 to 2016/17) and in the primary level (1-8) in the majority of the regions and reported years.
- There appeared to be relatively higher enrollments for male in the TVET, as compared to female, in Afar, Somali and Gambela between 2015/16 and 2017/18 while in Amhara region female outnumbered male between 2015/16and 2017/18). In 2017/18, however, the least percentage of female enrollments in TVET is appeared in Afar (40%) and the highest in Amhara region (55%).
- Female teachers in TVET are much less than male teachers across all the three years, and male teachers increased from 78% in 2015/16 to 80% in 2017/18 at the country level. In

Somali, Addis Ababa, Harari and Dire Dawa regions report declining trends in the use of modern contraceptive methods use from the previous survey year of 2011.

- Children under 5 stunting observed higher in males than females at national level. A decrease in the percentages of children under age 5 who are stunted for both sexes are observed across the regions, except in Benishangul-Gumuz and Dir Dawa regions where a little increment witnessed between 2000 and 2016. For the same periods a consistent decline reported in all other regions.
- Between 2000 and 2016, female children under 5 wasting decreased in Tigray (10% to 8.9%), Benishangul-Gumuz (14.3% to 11.2%), SNNP (10% to 5.6%), Gambela (17.5% to 9.9%), Addis Ababa (5.3% to 2.6%) and Dire Dawa (11.6% to 9%). In the remaining other regions, an increase in female wasted children has been observed for the same period.
- More over more male are found obese (BMI>=25) than females. The share of male's being obese increased from 5.7% (2011) to 7.6% (2016), whereas female's overweight or obese share increased from 2.5% to 3.5%. Regionally, an increasing pattern in both sexes being overweight or obese has also been observed in Tigray, Oromia, Benishangul-Gumuz, Gambela, Harari and Addis Ababa regions on the same period.
- More female is found being anemic victim than males. Between 2011 and 2016 the percentage of male with anemia increased from 11.3% to 14.5%. While anemic females increased from 16.6% to 23.6%. Overall an increasing trend in both sexes with anemia reported across regions, except in Benishangul-Gumuz (14.1% to 11.1%) and Gambela (10.5% to 10%) regions where male percentage being anemic slightly decreased
- Maternal mortality ratio is observed declining from 1.68% (2000) to 0.67% (2016) at national level. Whereas a steady decline in the maternal mortality rate is being observed in Tigray, Amhara, Oromia and SNNP regions. In other regions the ratio showed varying but declining patterns.
- The percentage of women received antenatal care (ANC) reaches 62.4%. The majority of women reported receiving ANC in Addis Ababa City Administration (96.8%), Tigray region (90%) and Dire Dawa Administration (87.4%).
- Adult mortality rate for female declined from 6.6% in 2000 to 2.7% in 2016. A consistent declining trend adult mortality for both sexes observed at national and regional levels.

- The percentage of both men and women with HIV prevalence across different regions gets reduced between 2005 and 2016. However, in an increasing trend for female has been observed in Benishangul-Gumuz (0.9% to 1.6% for), SNNP (0.1% to 0.5%) and Gambela (5.5% to 5.7%) in the same period.
- At national and region level an increasing trend for comprehensive knowledge about HIV witnessed in both sexes, though varying patterns across the regions male have more comprehensive knowledge about HIV than females.
- Violence against women appeared declining across all the regions. Between 2000 and 2016, the percentage of women who are circumcised shows deceased gradually. Higher percentages of women being circumcised are reported in Somali and Afar regions.

Water, Sanitation and Electricity

- Male headed households have more access to drinking water than female headed household at country level and in all regions. Female headed household access to drinking water is being increasing in Afar, Somali, Harari, Gambela, Tigray and Dire Dawa regions.
- Less female headed household are found having access to improved sanitation, as compared to male headed household. In regions like Tigray, Benishangul-Gumuz, Gambela, and Dire Dawa female headed households access to improved sanitation declined severely between 2011 and 2016.
- Less female headed households are observed in having access to electricity at country level and across all the regions. Access to electricity by female headed household is found gradually increasing in the Gambela region between 2000 and 2016 (from 16.9% to 24.2%).

Finally, as the indicators are not computed separately for both sexes, in many places, to make comparisons, the CSA should provide hands on experience trainings and workshop on gender indicators and gender-disaggregated data collection, processing and presentation to mitigate any data gaps in the NSS.

1. Introduction

1.1. Background

The Government of Ethiopia (GoE) recognizes the need of promoting gender equality in the Growth and Transformation Plan (GTP II, 2015). Moreover, in line with the Sustainable Development Goals (SDGs), the Ethiopian developmental/policy framework envisions a major leap in addressing social indicators like gender equality in the development process, by assuming that both men and women contribute and benefit (equally) from it.

Significant efforts are underway to alleviate the low status of women and ensuring gender equality, while increasing the benefits of welfare/services to women. Accordingly, through changing policy perspectives from Women in Development (WID) and gender mainstreaming (aimed at integration of gender issues into every aspect of development for empowering women to be benefitted like men), attempts have been made to include women in development projects to address inequalities in women's and men's social roles.

In addition, from the international perspective, the Convention on Elimination of all forms of Discrimination Against Women (CEDAW), the Beijing Platform for Action (BPA), the MDGs and now SDGs appeared to be the main sources to guide formulation of policies and strategies for achieving gender equality by eliminating discrimination against women in the major socio-economic arenas: employment opportunities, regulations, and customs/practices that discriminate women. Accordingly, education, literacy, access to media, employment, power and decision-making, among others are considered the major domains for gender disparity in household and social fronts. Even if there is an increasing awareness of the importance of gender-disaggregated data across the socio-economic domain, significant information gaps exist in understanding the way as to how men and women's differing responsibilities, privileges and constraints affect the outcomes.

Therefore, gender-disaggregated data is deemed important in understanding the role that gender plays in development. In other words, providing a way to monitor progress toward greater equality over time, gender-disaggregated data can help in understanding the roles men and women play in socio-economic development and reveal differences in the opportunities and constraints (they may face) that affect the developmental outcomes, in medium to long run.

Gender Mainstreaming

Gender mainstreaming means that the attention to gender equality is given a central part in all development interventions including analyses, policy advice, advocacy, legislation, research and planning, implementation, and M&E of programs/projects, though a transformative process. It can reveal a need for changes in goals, strategies and actions to ensure that both women and men can influence, participate in, and benefit from development process. This may require changes in organizational structures, procedures and cultures to create conducive environment, for the promotion of gender equality.

Gender mainstreaming is an approach or a strategy for achieving broad-based gender equality throughout society by getting gender issues into the mainstream. The gender mainstreaming approach is all about good governance; it is based on the understanding that women and men have different life experiences, needs, and priorities and are affected differently by policies and programs. For government to be successful in meeting the needs of all members of the society, it is essential to consider and address gender issues. Gender mainstreaming essentially means changing the way governments and organizations work so that the complexities and differences between men and women experiences, needs and priorities are equally valued, automatically considered and addressed from the outset, at all levels, in all sectors, at all stages of the policy and program cycle.

Additionally, it requires all government bodies to consider a gender perspective in their work and take measures to ensure that gender disparities are not made worse by policies and programs, and strategies are in place to promote gender equality. Therefore, broad-based gender equality can only be achieved when the mainstream is operating in a gender-responsive manner. Thus, gender mainstreaming:

- is a process as it comprises of transformation or change;
- takes into account the different needs, experiences and perspectives of men and women;
- is not an end in itself but a strategy or approach that leads to gender equality; and
- can be used at different levels, i.e. policies, programs, activities, budgets and legislations.

Gender mainstreaming is an essential part of good governance, as it seeks to ensure that institution, policies, programs and projects respond to the needs and interests of all members of the society, and distributes benefits equitably between women and men. It recognizes that gender equality issues exist across the levels and involves all members of the society across the sectors like health, education etc., and that gender equality and the empowerment of women can only be achieved by taking into account and by addressing the relationships between women and men. Therefore, the aim is to transform the entire mainstreaming to ensure that it involves and is responsive to all members of the society. In most of the countries (including Ethiopia), a large number of techniques and tools have been used to mainstream gender, as given below:

- ***Gender-disaggregated data and gender statistics:*** that collects and presents individual data divided for women and men, boys and girls and provides specific data on emerging gender issues;
- ***Gender analysis:*** which identifies the underlying causes of the differences between men and women in access to and control over resources, participation in decision making and benefits, and direct and indirect impact of policies, programs and projects;
- ***Gender indicators and indexes:*** such as the gender and developmental index, gender empowerment measure, which enable progress toward gender equality to be monitored and the impact of particular approaches and strategies to be measured;
- ***Gender budgeting and gender audits:*** which analyze resource allocation in terms of the shares directed toward meeting the needs of women and men, and reports the extent to which government agencies match their commitment to gender mainstreaming with concrete financial allocations to address gender and women's issues.

Gender Analysis

Gender analysis helps to frame questions about women and men roles and relations in order to avoid making assumptions about who does what, when and why. The aim of such an analysis is to formulate development interventions that are better targeted to meet both the women and men needs and constraints.

Gender analysis refers to a variety of methods and techniques used to understand the differences between men and women in terms of roles, behaviors, activities, needs, opportunities, access to and control over resources, and constraints in relation to one another. Gender analysis also refers to the gender-based disaggregation and appraisal of available data to pinpoint the difference between men and women on the account of gender.

The roles, activities, opportunities, access to, and control over resources of men and women vary across different socio-economic and cultural settings, whereby their roles and learned behavior could be different. In addition, due to diverse roles expected from them, men and women have different knowledge, experience, needs, and access to resources. By considering this, different gender roles result in one sex having an unequal role in decision making while the other has little or no and being denied the benefits from development. Gender analysis, thus, explores such differences and provides information about gender relations in different settings.

Therefore, it represents a critical examination of how differences in gender roles, activities, needs, opportunities and rights/entitlements affect men, women, girls and boys in certain situation or contexts. It assesses the relationship between women and men, their access to and control of resources, and the constraints they face relative to each other. Gender analysis is a way of interpreting census and survey data in response to growing need of gender information of the country. Specifically, for the gender-mainstreaming, it is considered to be a practical tool that seeks participation in a holistic way while:

- Critically examining the differences in women and men lives;
- Searching for the underlying causes of inequality between women and men and boys and girls;
- Highlighting gender-specific variables and is generally (though not exclusively) used to achieve positive change for women and girls.

Gender Statistics

Gender statistics are statistics that adequately reflect the situation of women and men in all policy areas; they allow for a systematic study of gender differentials and gender issues. Gender statistics are not necessarily and not only statistics disaggregated by sex.

Adequately formulate the production of gender statistics requires that concepts and methods used in data collection to reflect existing gender concerns and differentials and take into consideration social and cultural factors that can produce gender-based bias in data collection, analysis, and presentation.

The process of production of gender statistics implies some indispensable steps:

- Selection of topics that need to be investigated;
- Identification of the data needed to understand gender differentials and women and men's roles and contributions in the different spheres of life;
- Evaluation of existing concepts, definitions, and methods used in data collection against existing realities of women and men;
- Development of new concepts, definitions, and methods to produce unbiased gender statistics;
- Compilation, analysis, and presentation of statistics in formats easily accessible to a wide array of users;
- Development of dissemination plans for statistical products to reach a wide audience.

Gender analysis frameworks

Gender analysis is a broad and complex activity that involves careful examination of gender relations in different socio-economic and cultural settings. To do so, various tools (frameworks) have been developed by researchers, including: ***Harvard Analytical Framework, Moser's Gender Planning Framework*** *and* ***Women's Empowerment Framework***.

A) Harvard Analytical Framework

This framework was developed at the Harvard Institute for International Development in the United State of America in 1985. Three main components can generally be identified in this framework (March et al., 1999, Women Information Center, 2005). The first is the activity profile that deals with the identification of the productive and reproductive activities of men and women. It examines not only the gender-based division of labor but also the percentage of time allocated for each activity, whether the activity is carried out seasonally or daily and specification of the place where the

The second component is the access and control profile that indicate the gender based access to resources, control over the use of resources and the benefits of the use of resources. Access simply refers to the use of resources and has nothing to do with control over it as, for instance, women in most developing countries have access to resources but do not have power to make ultimate decisions about their use. The third component includes influencing factors that enable the assessment of factors in determining different opportunities and constraints for men and women, and shape gender relations. These may include general economic conditions, institutional structures, demographic and socio-cultural factors, community norms, legal parameters, education and training and political events.

B) Moser's Gender Planning Framework

It is one of the mostly used frameworks for gender analysis at policy and national level, and is based on the concepts of gender roles and needs, and policy approaches to gender and development planning. This framework categorizes the five main policy approaches in addressing women roles and development, as presented hereunder:

• **Welfare**: Earliest approach (1950-70), with its purpose to bring women into development as better mothers. Women are seen as passive beneficiaries of development. It recognizes the reproductive role of women and seeks to meet practical gender needs (PGNs) associated with that role through top-down handouts of food aid and measures against malnutrition and family planning. It is non-challenging and, therefore, still widely popular.

• **Equity**: The original Women in Development (WID) approach (1976-85) with its purpose to gain equity for women, who are seen as active participants in development. It recognizes

women's triple role (productive, reproductive and community-based) and seeks to meet strategic gender needs (SGNs) through direct state intervention giving political and economic autonomy, and reducing inequality with men. It challenges women's subordinate position.

•**Anti-poverty:** The second WID approach, a toned-down version of equity, adopted from the 1970s onward. Its purpose is to ensure that poor women increase their productivity. Women's poverty is seen as a problem of underdevelopment, not of subordination. It recognizes the productive role of women, and seeks to meet the PGNs to earn an income, particularly in small-scale income-generating projects.

• **Efficiency:** The third and now predominant WID approach, adopted particularly since the 1980s debt crisis. Its purpose is to ensure that development is more efficient and effective through women's economic contribution, with participation often equated with equity. It seeks to meet PGNs while relying on all three roles and an elastic concept of women's time. Women are seen entirely in terms of their capacity to compensate for declining social services by extending their working day. It is a very popular approach.

• **Empowerment:** The most recent approach, articulated by Third World women. Its purpose is to empower women through greater self-reliance. Women's subordination is experienced not only because of male oppression but also because of colonial and neo-colonial oppression. It recognizes the triple role and seeks to meet SGNs indirectly through bottom-up mobilization of PGNs. Empowerment is potentially challenging, although its avoidance of Western feminism makes it unpopular except with Third World women's NGOs.

C) Women's Empowerment Framework

Sara Hlupekile Longwe of Zambia developed this framework, which is also called the Longwe Framework. It emphasizes the assessment of women's empowerment and equality with men regarding equal participation in the development process to achieve control over the factors of production on an equal basis. In Longwe's Framework, five different levels of equality are identified (March et al., 1999, Women Information Center, 2005). The five levels of equality, in their hierarchical order are:

i) **Welfare** shows women's access to material resources relative to men such as food supply, income, medical care, etc.

ii) **Access** denotes women's access to factors of production on an equal basis with men such as equal access to land, labour, credit, training, marketing facilities, public services and benefits, etc.

iii) **Conscientisation** indicates conscious understanding of the difference between sex and gender, and an awareness that gender roles are cultural and can be changed. It also involves a belief that the sexual division of labour should be fair and agreeable to both sexes and does not involve the domination of one sex and subordination of the other.

iv) **Participation** as women's equal participation in the decision-making process, policymaking, planning, and implementation.

v) **Control** refers to women's control over the decision making process through concientisation and mobilization, to achieve equality of control over the factors of production and the distribution of benefits.

While Harvard Analytical Framework is too generic and does not tackle gender issues within the target population, Longwe Framework misses the macro environment that has an impact on gender relations, and misleading people to think that empowerment is a linear process while moving across the five levels.

1.3.2. Methodology

The employed method, primarily, include desk research where the secondary data are collected and compiled from CSA's census/survey datasets and reports, statistical bulletins, and other administrative files and documents. Particularly, the desk research being performed by using the following major steps, as suggested for the production of gender statistics, keeping in mind the nature and scope of the study.

Step 1: Overview of the NSS and Regional data administrative systems from gender perspective

The process of producing gender statistics, like other statistics, involves a range of highly inter-related activities. Each of these activities, and the way they are linked together, can have a significant impact on the quality of the final product. Thus, it is important to view the process holistically to ensure that all the activities are linked efficiently and well-integrated. In this step,

a review of the NSS and region level data is conducted to assess all available sex disaggregated data from the five basic services, CSA datasets on surveys and census and civil services, parliament and others related data sources.

Step 2: Selection of topics that need to be investigated

Topics to be included are selected based on the scope of the assignment given in the Terms of Reference (TOR). Before commencing of the data compiling task, we have to first determine what gender statistics to be produced, with priority and time frame, to accomplish the task. We should be able to sketch the scope of the task, the streams of activities planned in a gender statistics framework, if exists. The determination of the scope of data compilation task required consultation and discussion with relevant stakeholders and users of gender statistics, development policy agencies, development partners, the client (CSA), and any other agency producing the statistics both at federal and regional level. Hence, this step is undertaken in consultation with these actors ahead of data compilation and throughout the statistical production process.

Step 3: Evaluation of existing concepts, definitions and methods

To produce a coherent gender statistics and analyze gender concerns, the concepts and definitions must be agreed and appropriate for differentiating the status of women from men, and for understanding differences in their welfare, developmental, and economic conditions. Therefore, in the planning stage, data items (indicators) to be obtained are clearly defined as per the standards and classifications of the NSS framework. This supports data usefulness and comparability, and enhances integration of data from various data sources while reducing the conflicts, to help produce a coherent analytical report on gender statistics. For the purpose, CSA's definitions of statistical concepts and standards are referred.

Step 4: Identification of data source

After the identification of data needs, standards of definitions and concepts are agreed to evaluate the extent to which existing data sources meet the needs with specified standards. Some of the data are routinely collected through the MIS in the line ministries, at regional levels, along with periodical surveys and a number of censuses conducted by the CSA in the past.

Additionally, while some data are available without gender disaggregation, other may not be collected, though critically important, even within the reach of the NSS to collect and produce it.

Within the statistical concepts defined above, and having agreed with CSA's Gender Directorate on the types of data to be collected, existing data sources are evaluated to compile data from.

Generally, the following data sources are evaluated for the availability of required datasets:

1. Population Censuses: Both actual and projection
2. Population-based sample surveys: CSA's surveys like Consumption Expenditure Survey, Welfare Monitoring, Labor Force Survey, Demography and Health Survey, Annual Agriculture Sample Survey, Large and Medium Scale Manufacturing Survey, Small Scale Manufacturing Survey, Distributive Trade Survey, Time Use surveys and other surveys dealing with the five basic sectors (Health, Education, Water, Agriculture and Roads)
3. Administrative records both at federal and regional levels: Administrative system in the above mentioned (five) basic sectors and others institutions like Parliament, National Election Board, Federal Police, Federal Attorney, and Civil Service Commission.

However, the information obtained from these data sources is generally complementary, as they are based on different methodologies that affect the type, range and quality of gender information.

Step 5: Development of harmonized Gender Indicators

Gender indicators are measurement rates that regard categories of variables in different ranges to know, analyze and settle comparisons between those categories in reference to a certain population, territorial scope or specific moments. Gender indicators, in general, are used to measure the changes produced in gender relations, and as any measure of comparison, these are suitable to place similar situations on the same level in a specific moment or time.

The process of development of gender indicators is guided by the conceptualization of contents and format of the results to be reported. Also, this requires analysis of various gender frameworks, gender indicators developed by international gender affiliated institutions as well as, gender-related indicators in the national, regional and sectoral policy documents. As a result, a set of sample gender indicators (see Annex 1) are considered based on UN minimum gender

indicators, along with the gender indicators proposed in SDGs, and Growth and Transformation Plan (GTP), Beijing Platform for Action (BPA) and the Convention on the Elimination of all forms of Discrimination against Women (CEDAW).

Step 6: Data Availability Assessment and data set collections

The gender-related indicators that can be identified and proposed may be numerous, but the feasibility of calculating or measuring them quantitatively is limited by data availability. This necessitates assessment of availability of data for the selected tentative sample gender indicators and determining the final gender indicators to be compiled for the purpose of reporting.

As a result, the availability of the data sets for tentative gender indicators is assessed from the government institutions (highlighted in the TOR), and those additionally included upon the agreement with CSA like:

- Central Statistical Agency (CSA)
- Ministry of Health (MoH) and corresponding regional offices
- Ministry of Agriculture and Livestock (MoAL) and corresponding regional offices
- Ministry of Education (MoE) and corresponding regional offices
- Ministry of Water, Irrigation and Energy (MoWIE) and corresponding regional offices
- Civil Service Commission (CSC) and corresponding regional offices
- Ministry of Women, Children and Youth Affair (MWCYA) and corresponding regional offices
- Ethiopian Road Authority (ERA) and corresponding regional bureaus
- Federal Supreme Court and corresponding regional bureaus
- Attorney General and corresponding regional bureaus

Generally, the data collection process is carried out at the following levels:

I. **At Federal Level:** Data sets found with CSA and selected Federal Ministries, authorities and agencies.

II. **At Regional Level:** To collect the data sets from each regions' five basic sectors (Health, Education, Water, Agriculture and Road) bureaus and others regional offices like Police, Civil Services, Attorney.

Step 7: Compiling data sources and summarized gender data for selected gender indicators

After identifying the different data sources, data are compiled across the selected/agreed gender indicators by using various methods like combining, appending, aggregation and disaggregation, construction of proxy variables. Finally, the summarized gender data are prepared and analyzed by using Excel/SPSS software.

Step 8: Analysis and presentation of gender statistics in easy-to-use formats

Analysis with respect to the selected gender-indicators is conducted by computing numbers, ratios, percentages and mean values based on the nature of the indicator in order to examine the difference between boys and girls, and men and women figures.

Step 9: Preparing Gender Booklet and Analytical Report

This analytical report presents statistical comparison of boys, girls, men and women with respect to the selected of gender indicators, causal factors that contribute to the present gender situation, and emerging trends. Specific challenges and opportunities related to the effective access to and participation of women and girls in service delivery are also discussed. However, the ways that these steps are operationalized in the current assignment context of Ethiopian NSS varied, depending on the sector, data type and analysis for which the gender statistics are obtained/complied.

2. Literature Review

This section describes the key terms that are necessary to deals with gender related data issues and data. Specifically, the difference between sex and gender is presented, along with the idea of gender statistics and gender indicators. In addition, the section highlights gender specific issues in Ethiopia.

2.1. Gender

Biological differences between women and men are fixed or almost unchangeable over the period of time. "Gender" has often been used as a synonym for women; being many inequalities that currently exist, disadvantage women rather than men. Gender determines what is expected, allowed and valued in a woman or man in a given context, and is defined as a set of characteristics, roles, and behavior patterns that distinguish women from men socially and culturally and relations of power between them (Women Information Center, 2005). In other words, gender is the social construction of what it means to be male and female, and is distinct from sex, which is biologically determined, constant and universal.

While the word "sex" refers to biological differences between women and men, "gender" refers to socially-constructed differences in the attributes and opportunities associated with being female or male and to social interactions and relationships between women and men. Box 1 highlights the major differences between sex and gender.

Box 1: Sex versus Gender

Sex	Gender
Biological characteristics that generally define humans as female or male	Socially constructed set of roles and responsibilities associated with being girl and boy or women and men
Born with	Not born with
Natural	Learned
Universal, no variation across cultures or time	Gender roles vary greatly in different societies, cultures and historical periods, and depend on socio-economic factors, age, education etc.
Cannot be changed (except medical treatment)	Gender roles can be changed overtime, since social values and norms are not static

In many societies, irrespective of their cultures, there remain differences and inequalities between women and men in terms of assigned roles and responsibilities, activities, access to and control over resources and decision-making opportunities. Such differences between men and women result in different gender roles, social roles and socially appropriate characteristics and behaviors. By considering that gender-based differences affect individual and household outcomes, the international community has recognized the importance of women's empowerment and decision-making.

On the other hand, gender constructions are deeply rooted in the makeup of social order, through laws, institutions, social norms and practices, and are often assumed to be natural consequences of biological differences rather than learned through socialization (Jackson and Scott, 2002). However, what it means to be a female or male in one country varies from that in another country.

Some cultural practices such as initiation ceremonies, child and forced marriages, sexual cleansing, spouse inheritance and property inheritance/grabbing, affect negatively on the well-being of women and children. Consequently, this tends to affect women's performance and participation in areas of education, reproductive health, employment, agriculture, decision making at home, community and national levels. While at the governance level, there exist limitations in political and economic participation of women in national affairs, at community and household levels, women are in most cases restricted from participating in important decisions such as resource planning/use, family planning and access to services such as health and education.

Moreover, lack of sex-disaggregated data is recognized as a constraint that limits our understanding of gender dimensions. For example, in an agriculture survey, data are often collected at the household or holding level. As a result, the unit of analysis for empirical studies is often the agricultural household, and gender comparisons are made at the household level between male- and female-headed households. However, this can provide a much different picture of men and women's circumstances with regard to equality or agricultural production than from analyses between men and women at the individual level within households (Deere et al., 2012).

As a vehicle to promote economic growth and development, such data are required to support the monitoring of gender differences and their effects on development, and to provide recommendations to promote gender equality. In general, gender equality can be achieved when women and men, girls and boys, have equal rights, life prospects and opportunities, and the power to shape their own lives and contribute to society.

2.2. Gender Statistics

As discussed above, from the social and economic perspective, gender equality is a development goal to be achieved, as well as a precondition for the achievement of other developmental goals. Gender statistics are central to promoting gender equality and the empowerment of women because they provide the benchmarks against which progress can be measured.

In addition, the Beijing Platform for Action had established a strong international mandate for gender statistics. The 4th World Conference on Women underlined the importance of gender statistics by calling regional, national, and international agencies to compile, analyze, and present data that are disaggregated by sex on regular basis to adequately depict the situations of women and men in all critical areas to guide their policies and programs. Gender statistics highlight the similarities and differences between women and men, documenting the real situation of one sex as compared to that of the other.

Gender data (or statistics) is data disaggregated by sex as well as data that affects women and girls exclusively or primarily. It provides meaningful insight into differences in wellbeing across women and men, and girls and boys, as well as actionable information for policy to address disparities. Gender statistics is defined as characteristics that adequately reflect differences and inequalities in the situation of women and men in all areas of life (UN, 2006). It is summarized as:

i) Data are collected and presented by sex as a primary and overall classification;

ii) Data reflect gender issues;

iii) Data are based on concepts and definitions that adequately reflect the diversity of women and men and capture all aspects of their lives;

iv) Data collection methods take into account stereotypes and social and cultural factors that may induce gender bias in the data.

Sex-disaggregated data, on the other hand, is defined as data collected separately for males and females. Data is disaggregated by "sex" and not by "gender" because when data is collected, it is the biological differences of a person that is captured. By comparison, gender refers to the social relations between men and women, which is socially constructed and can change over time and from place to place. But having the data is only first step; its value is only realized through use.

Gender statistics serve many important purposes, i.e., help eliminating stereotypes by providing facts about the roles and contributions of women; support gender mainstreaming by providing data for analyses that form the basis for gender-sensitive policies, legislation, and evidence-based planning and resource allocations; make it possible to monitor the impact of gender-related national plans, programs and development projects by establishing benchmarks and indicators; and stimulate public debate and raising awareness about gender equality.

By considering that neither women nor men are homogeneous groups, being some within each gender are more vulnerable than others, further disaggregation by socio-demographic factors like age, education, employment, ethnicity etc, is needed to create an accurate picture. To put it differently, gender statistics cut across economic, health, political, and social dimensions, and elicit not only outcomes, but also the needs and capabilities of women across important policy areas (e.g., access to resources, health and education).

Thus, gender statistics is not just sex-disaggregated data, but refers to the availability and use of data and indicators highlighting the relations between women and men. In addition, gender statistics are not separate statistics about women; rather, they cut across all areas of statistics to generate an accurate picture of the statuses and roles of women and men in society. It, therefore, describes what should be a basic requirement for all statistics relating to people and their activities and to a basic responsibility of the NSS.

Producing/Using Gender statistics

Gender statistics, like any kind of official statistics, are derived from censuses, surveys, and administrative records kept by government/agencies. Population census data provide information on the demographic, social and economic characteristics of nation's human resources, and a breakdown by sex is possible by population size, education, economic activity, occupation, ethnicity etc., when the data are tabulated. Surveys cover a range of subjects generally to supplement the census data and can potentially provide recent (sex-disaggregated) information

about households' demographics, housing characteristics and facilities, employment status, income, consumption patterns and expenditures. Because of their adaptability, household surveys, regardless of type, provide information missing in population censuses.

Similarly, registration of vital events, such as births, marriages, retirement and deaths, too produce gender-disaggregated statistics. Administrative data come from many sources like hospital/clinic records that can provide health related statistics (including data on contraceptive use by gender), and agencies (like educational and housing) that collect and maintain statistics related to their services. Each of these sources may have respective strengths and weaknesses.

Additionally, the literature on gender statistics reveals two aspects that reflect the role of gender in statistics: gender-in statistics and gender-responsive statistics. The first covers almost all areas of demographic, social and economic statistics, while examining the differences between women and men on data and statistics throughout the entire statistical system. The NSS, therefore, should have good statistical methods, in response to user demands, and/or adapted their approaches/methods to capture most gender differences. But an integration of a gender perspective is hardly considered (explicitly) in such processes.

The other, refers to gender-specific statistics, covers the topics that broadly relate to equality/inequality between women and men (girls and boys) and women's empowerment. This approach guides towards accepting all statistics being gender-responsive, gender statistics and gender indicators can then be defined as a specific set of statistics and indicators that describe and measure women's and men's status, gender roles and relations in society and monitor changes in the factors that influence women's and men's status, gender roles and relations.[1]

Gender statistics are used, mainly, by policy makers, civil servants, development partners, researchers and analysts, journalists etc. Therefore, it is of great importance to have some mechanisms to monitor and/or getting feedback to know as to how the gender data are used. While generating gender-responsive data and statistics is the responsibility of NSS, supported by regional and international bodies, each sector should use gender-responsive data to generate gender-responsive statistics and indicators that address the key (sectoral) gender equality policy

[1] http://unstats.un.org/unsd/genderstatmanual/Chapter-2-Introduction.ashx

issues. This indicates toward building strong relationships between data producers and data users.

2.3. Gender Indicators

Gender indicators are designed to measure women's empowerment and progress toward gender equality between women and men, including women's and men's status, gender roles and relations in social, economic, cultural and political life. Since equality and inequality are multi-dimensional phenomena, composite indicators are required to measure equality/inequality directly. However, the available composite measures face major conceptual, practical and measurement difficulties and none are able to measure gender equality/inequality directly.

Most regional and national efforts to develop gender indicators use sets of indicators covering a range of topics considered to contribute directly or indirectly to gender equality or women's empowerment. Following the recommendations of the Statistical Commission, and as reported to its forty-third session (E/CN.3/2012/19),[2] the Inter-agency and Expert Group on Gender Statistics, through its Advisory Group on Global Gender Statistics and Indicators Database, identified a minimum set of gender indicators containing 52 indicators (See Annex 2). These deal in the domains like economic structures, participation in productive activities and access to resources (19), education (12), health and related services (11), public-life and decision-making (5) and human rights of women and girl children (5).

The Sustainable Development Goals (SDGs), adopted in September 2015 and slated to be in place till 2030, include a broad set of gender-related targets- including valuing unpaid work, eliminating child/forced marriage and violence against girls and women, greater participation by women in public life and institutions, equal rights to economic resources and assets, and using information and communications technology to help empower women.[3] For each of the SDG targets, the UN Inter-Agency and Expert Group on SDG Indicators (IAEG-SDGs) proposed indicators that were approved by the UN Statistical Commission at its forty-seventh session in March 2016; monitoring efforts have since ensued.[4]

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[2]UN Minimum Gender Indicators (2013)

[3] http://sustainabledevelopment.un.org/content/documents/1579SDGs%20Proposal.pdf

[4] http://unstats.un.org/sdgs/files/meetings/iaeg-sdgs-meeting-03/Provisional-Proposed-Tiers-for-SDG-Indicators-24-03-16.pdf

After taking an inventory of possible indicators, it is helpful to classify them according to availability of data and type of data. The first category includes indicators for which data are available from the NSS with national coverage (population censuses, national household surveys, administrative records or registers). Within this category, individual indicators can be organized under main and sub-topics. Second category deals with indicators for which data are available but do not cover the entire country (rather cover only rural or urban, certain groups of people or establishments, or administrative areas). The third category includes indicators for which there are small research studies that cannot be generalized to the population nevertheless serve to clarify underlying relationships within the phenomenon considered. Moreover, the last category contains those indicators for which no data are available and can be considered to highlight the areas (issues and concerns) on which relevant information is lacking.

In many cases, the construction of sex-disaggregated and gender-relevant indicators only requires changes to the way data is collected, so that it is collected by sex. Also, there are areas in which gender-relevant indicators require assessing how and what type of data are to be collected, and proposing alternative approaches and additional questions. Generally, all gender indicators are deemed useful in revealing gender dimensions and gaps, providing important background information on the gender dynamics within country, while comparing the progress of gender equality of particular issues across the regions.

In the event when data are not available at the sub-national level, due to infrequent or outdated, non-existent, or survey data that are not representative of the population of interest, countries may be prompted to select an alternative proxy indicator/measurement. However, it is critical that countries also take care to ensure that a proxy indicator may be warranted under circumstances where no other viable alternative exists, and ensures that its definition aligns as closely as possible with the unavailable desired indicator. Beyond the indicators, sex-disaggregated and gender-relevant data are also useful for more in-depth analyses of men and women's engagement in various activities like agriculture and decision-making.

2.4. Gender Issues in Ethiopia

Despite the importance of gender statistics, data on girls, boys, men and women's is still lacking in many countries. In the Ethiopian context, different studies (e.g., Almaz, 1991; Haregewoin and Emebet, 2003; Hirut, 2004; Mukuria et al., 2005) indicate the low status of women, in

general. Lack of access to productive resources such as land, lack of access to education, employment opportunities, basic health services, and protection of basic human rights, along with low decision making, violence and harmful traditional practices are some of the indicators of the socio-economic marginalization of women in the country. Such problems of gender inequalities are very much prevalent in and relevant to Ethiopia.

Ethiopia is a patriarchal society that keeps women in a subordinate position (Haregewoin and Emebet, 2003). There is a belief that women are docile, submissive, patient, and tolerant of monotonous work and violence, for which culture is used as a justification (Hirut, 2004). The socialization process, which determines gender roles, is partly responsible for the subjugation of women in the country. The differences in the ways in which individuals are treated through the socialization process, due mainly to their sex status, leads to the development of real psychological and personality differences between males and females (Almaz, 1991). Such gender gaps between men and women in socio-economic indicators have negative impact on the country's overall development and particularly on individuals' demographics and health outcomes.

A study on gender inequality and women's empowerment (in 2008) was carried out by the Ethiopian Society of Population Studies, while in-depth analyzing the 2005 Ethiopian Demographic and Health Survey (EDHS). The study primarily assessed the gender gap in socio-economic and demographic characteristics that included literacy, educational attainment, work status, access to media, marital status and age at first marriage, and desire for children. It further assessed women's empowerment at household level by using a set of direct and evidence-based indicators included in the EDHS.

The study reports statistically significant gender gaps in literacy, educational attainment, work status, type of earning for work, occupation, access to media, age at first marriage and fertility preference or desire for children. Women are seriously disadvantaged in terms of the above variables. Specifically, the findings for women indicate a significantly higher illiteracy rate, lower proportion with primary or secondary and above education, lower proportion not working to earn, low or non-existent media access and, by far younger age at first marriage. Women indicated more interest to limit their number of children than men.

The qualitative results indicated that there exists a widely prevalent attitude in the society, particularly in rural areas, that early marriage and assuming household responsibilities are the primary roles of women. In addition, women's empowerment at household level was found to be generally low, as they do not involve in household economic decision making and health matters. However, better educational attainment, working to earn, living in urban areas, better household wealth status, better access to media, and age of women (being older) are appeared to be significant contributors to women's empowerment at household level. A further analysis revealed that women's empowerment on the dimension of self-esteem and autonomy on their own body is extremely low.

One of the CSA surveys reveals that women are underrepresented in the formal sector of employment (CSA, 2004), while account for less than half (43%) of the total employees in the country. Considering the percentage of female employees from the total number of employees by employment type, the highest was in domestic activities (78%), followed by unpaid activities (59.3%). On the other hand, the survey shows overrepresentation of female workers in the informal sector, whereby about 58% of working women work in the informal sector compared to 37.7% of working men.

Following such figures and MDGs, the GoE supported by development partners had set goals for gender equality and women's empowerment. The commitments include ensuring universal primary education for both boys and girls by 2015; elimination of gender disparity at all levels of education by 2015; and reducing maternal mortality ratio by three quarters between 1990 and 2015. This is supported by different policies and legislations like National Policy on Women (1993), National Population Policy (1993), Education & Training Policy (1994), National Cultural Policy (1997), HIV/AIDS Policy (1998), Ethiopian Water Sector Strategy (2001), National Plan of Action for Gender Equality (2005), Plan for Accelerated and Sustainable Development to End Poverty (2005), and Growth and Transformation Plan (2010).

In addition, gender equality is guaranteed by the Constitution of the country. Article 25 of the FDRE Constitution states that all persons are equal before the law and prohibits any discrimination on grounds of gender. In Article 35, equality in matters related to employment, equality in acquisition and management of property, equal participation in policy and decision making, and right of women to plan families are stated to ensure gender equality. Similarly,

Article 42 states the right of female workers to equal pay for comparable work (FDRE, 1995). Despite these efforts for endorsing country-specific laws and policies, there remain certain gaps and limitations in implementation, as can be witnessed from following studies.

A study titled "Ethiopia: Country Gender Profile" was carried out in 2006 by WABEKBON Development Consultant PLC attempted to present the general situation of women and government policy on gender in Ethiopia. It highlighted that Ethiopian women suffer from work stereotype and gender distribution of labor, and more occupied in economically invisible work. Women experience lower socioeconomic status in general and hence, is marginalized from making decisions across the levels. Nonetheless, women are poor in terms of access to resources, services and employment. Regardless of women's immense contribution, they often lack productive assets particularly land, and are underserved with agricultural extension, credit, labor, oxen and farm implements. While the increase in the number of women employees over the years is insignificant, their employment in the formal sector both in industries and the Civil Service is lower than men (NCTPE, 2003).

A report on Preliminary Gender Profile of Ethiopia, published by UN Women (in November 2014) highlighted the institutional framework for gender equality in Ethiopia, while drawing the basic profile (demographics and life influences) for men and women in the country. The study reports that through Ethiopia's commitment to standards for gender equality and women's human rights, and approval of the Convention on the Political Rights of Women (CPRW) and the Convention on Elimination of All Forms of Discrimination against Women (CEDAW), women's representation in politics and decision-making has been increasing steadily, at various levels.

Another report presented in 2015 titled "National Assessment: Ethiopia Gender Equality and the Knowledge Society" by Helina (2015) summarized the government efforts targeting gender issues/mainstreaming under eleven (11) dimensions: i) Enabling Policy Environment; ii) Health Status; iii) Social Status; iv) Economic Status; v) Access to Resources; vi) Women's Agency; vii) Opportunity and Capability; viii) Women in Knowledge Society Decision Making; ix) Women in the Knowledge Economy; x) Women in Science, Technology, and Innovation Systems; and xi) Women and Lifelong Learning.

Also, on-going programs to develop sector-specific gender mainstreaming guidelines and gender audits demonstrate the Ministry of Women, Children and Youth (MoWCYA) capacity to carry

out its mandate and coordination function, which is further supported by Regional Ministries of Women Affairs, including implementation of Gender Responsive Budgeting and the appointment of inter-departmental gender focal points within the Ministry of Agriculture. Nevertheless, measuring and tracking progress and sex disaggregated data to inform national planning processes remain challenging.

Given that gender statistics are important for policy change, ensuring collaboration between data producers (NSS) and data users (e.g., policy-makers, analysts and other key stakeholders) is indispensable. Continuing research is needed to deepen country dialogue and highlight the value of collecting better gender-disaggregated data, and monitoring related indicators, including those related to the development, as there remains a need to understand what policies are most effective in narrowing gender inequalities across different spheres. It is, therefore, imperative to revisit policy implementation strategies and programs, identify problem areas and take appropriate action for improvement in the light of gender analysis.

Definitions and Notes

Various concepts and definitions used in the CSA surveys and sector ministry reports are put in each chapter of result and discussion.

Region and Administrative state

Ethiopia is a Federal Democratic Republic composed of 9 National Regional states: namely Tigray, Afar, Amhara, Oromia, Somali, Benishangul-Gumuz, Southern Nations Nationalities and People (SNNP), Gambella and Harari and two Administrative states (Addis Ababa City administration and Dire Dawa city council)

Note: -

1. If some tables figures do not add up to total, it is due to rounding
2. In all tables "-" indicates not reported.

3. Labor Force, Time Use and Manufacturing Industries

Gender equality in employment is widely deemed important for fight against poverty, and ensuring economic and social development by empowering women in the family, community and society. In other words, women's employment increases their control over the possession and allocation of household resources that ensure economic independence and self-determination, thus empowerment.

Statistical data and indicators related to employment/unemployment can be used by the experts, both in the public and private domains, government institutions, researchers and policy makers to streamline their planning in national/business interest. Data on the composition of workforces might inform strategies on recruitment and promotion, and addressing gender imbalances at senior levels. Community level planners can use gender-disaggregated data to inform their strategies to set targets.

3.1. Labor Force

In order to assess the information about population's participation in the economic activities and development of the country, a National Labor Force Survey (NLFS) is considered useful. Data from such a survey present us with the main characteristics of the workforce engaged in productive activities, or available for, along with the distribution of employed population across the economic sectors. In other words, NLFS reveals the extent of available and unutilized manpower that can be absorbed by the economy to ensure economic wellbeing of the population and full employment. Accordingly, while NLFS has been carried out three times (in 1999, 2005 and 2013) by the CSA, to look into urban employment, administration of an Urban Employment Unemployment Survey (UEUS) has also been planned since 2003.

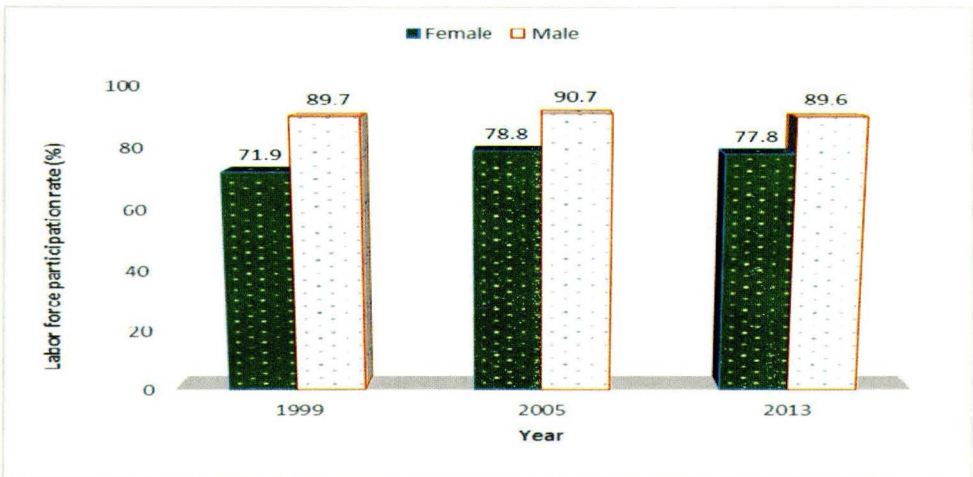
This section, therefore, presents the statistics of women's and men's participation in the economy and labor market. It consists of country and regional-level trends by age and gender for employment and unemployment, hours of work, distribution of men and women by occupation, industry, self-employment etc. Specifically, data are obtained from CSA's NLFS of 1999, 2005 and 2013 to perform the following analysis.

Labor force participation rate (LFPR)

The labor force participation rate (LFPR) is defined as the ratio of the labor force to the working-age population. The labor force is simply the sum of the number of persons employed and the number of persons unemployed.

There are three basic categories under the labor force framework: employed, unemployed and not in the labor force. These categories are exhaustive and mutually exclusive. The labor force consists of employed and unemployed persons. The unemployed persons are working-age individuals who are without work in either paid employment or self-employment, available for work and actively seeking work. Those who are unemployed and not seeking work (discouraged job seekers) during the reference period are not considered as part of the labor force.

Figure 3-1: Labor Force Participation Rate of Age 15 and above by Sex and Survey Years, Country Level



(Source: CSA, NLFS, 1999,2005 and 2013)

Figure 3-1 presents the country's labor force (age 15 years and above) by sex. Accordingly, male appeared to be higher than female in the LFS conducted in 1999, 2005 and 2013. An increasing trend in the female participation in country's workforce has been observed from 71.9% (as reported in 1999) to 78.8% (in 2005), with a minor decrease in the year 2013 (77.8%).

Table 3-1: Labor force participation rate of age 15 and above by sex, region and survey years

Region	1999		2005		2013	
	Female	Male	Female	Male	Female	Male
Country Total	71.9	89.7	78.8	90.7	77.8	89.6
Tigray	70.6	85.1	76.5	87.7	75.5	87.5
Afar	66.8	91.9	67.8	88.2	79.7	88.1
Amhara	69.1	90.4	79.6	92.3	80.4	91.2
Oromia	72.5	90.4	78.9	90.5	79.9	91.2
Somali	73.9	91.1	68.0	87.2	56.9	85.6
Benishangul- Gumuz	74.6	86.4	70.6	83.0	83.9	90.9
SNNP	75.8	91	82.1	93.4	78.3	88.9
Gambela	60.4	83.2	57.7	61.4	72.8	81.7
Harari	67.9	85.5	71.0	80.6	70.0	83.4
Addis Ababa	67.9	82.3	66.8	78.5	61.6	78.2
Dire Dawa	74.3	84.5	76.4	81.3	70.4	70.4

(Source: CSA, NLFS, 1999,2005 and 2013)

As can be seen from Table 3-1, the female participation in the labor force of aged 15 years and above is gradually increased in Afar, Amhara and Oromia, across all the three years (1999, 2005 and 2013). A reverse trend (of decreasing female participation in the labor force) has been observed in Somali region and Addis Ababa city administration from 1999 to 2013. For the remaining regions, while there remains some increase in female participation in labor force between 1999 and 2005, a minor decrease in the figures has been noticed, particularly in Harari region and Dire Dawa administration, between 2005 and 2013.

Figure 3-2 depicts the statistics pertaining to labor participation of the employed population in the formal economy by sex for the three survey years (1999, 2005 and 2013). Accordingly, at country level, a gradual increase in the labor participation rate has been observed for both sexes. While male labor participation rate in the formal economy grew almost twice (from 42.1% to 84.4%) between 1999 and 2013 survey years. the female participation is increased almost four and half times (from 13.4% to 75.9%) during the same period.

Figure 3-2: Percentage of employed population in the formal economy by sex, Country Total



(Source: CSA, NLFS, 1999, 2005 and 2013)

Furthermore, as can be seen from the Table 3-2, the participation of female employment in the formal economy has increased gradually across all the regions between 1999 and 2013, and that declined somewhat for male labor in Afar (50.7% to 32.3%), Somali (40.8% to 34.2%), Gambela (80.8% to 53.9%) and Dire Dawa administration (65.5% to 64.3%), over the same period. Specifically, female employed in the formal economy was observed increasing dramatically from 1999 to 2013 in the regions SNNP (5.6% to 71%), Amhara (6% to 83.9%), Oromia (9.4% to 74.5%), and Benishangul-Gumuz (11.4% to 75.6%). In 2013, Addis Ababa city administration exceeded in having the highest female employment in the formal economy (91.3%) followed by Amhara (83.9%) and Tigray (80.6%) regions.

Table 3-2: Percentage of employed population in the formal economy by sex, region and years

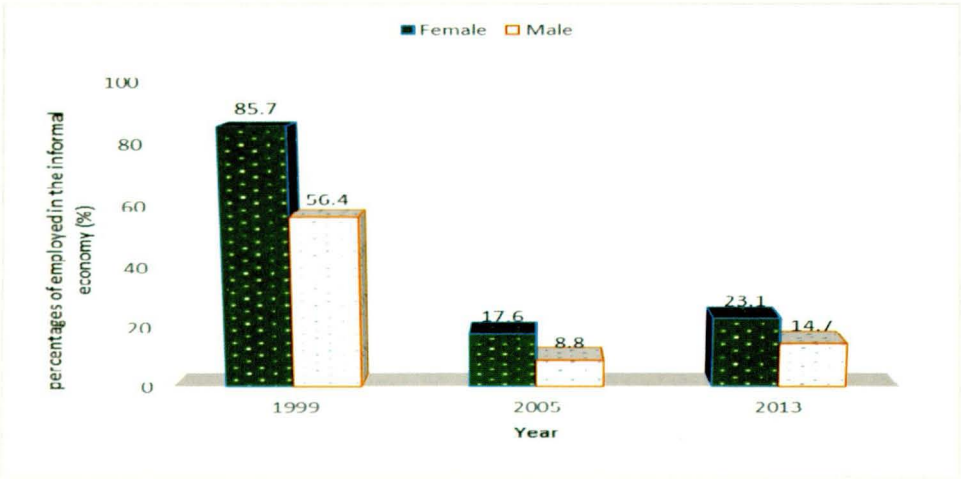
Region	1999		2005		2013	
	Female	Male	Female	Male	Female	Male
Country Total	13.4	42.1	83.3	90.0	75.9	84.4
Tigray	40.9	64.4	80.8	91.2	80.6	89.0
Afar	15.5	50.7	58.3	86.3	34.8	32.3
Amhara	6.0	31.3	85.6	95.3	83.9	92.7
Oromia	9.4	33.6	78.9	87.8	74.5	84.1
Somali	6.4	40.8	73.2	86.4	26.5	34.2
Benishangul-Gumuz	11.4	48.3	77.2	85.3	75.6	83.6
SNNP	5.6	32.0	81.0	90.0	71.0	79.6
Gambela	30.6	80.8	41.6	81.2	39.4	53.9
Harari	28.4	66.5	48.8	83.6	60.1	84.3
Addis Ababa	66.4	72.7	50.3	71.1	91.3	90.6
Dire Dawa	39.2	65.5	48.1	70.6	48.7	64.3

(Source: CSA, NLFS, 1999, 2005 and 2013)

Informal sector

Employment in the informal sector comprises all jobs in unregistered and/or small-scale private unincorporated enterprises that produce goods or services meant for sale or barter. The inability of the formal sector (both public and private) to generate adequate jobs could be factors to the growth of informal sector.

Figure 3-3: Percentage of employed population in the informal economy by sex, Country Total



(Source: CSA, NLFS, 1999, 2005 and 2013)

Figure 3-3 exhibits the statistics of the employed population in the informal economy by sex, for three survey years (1999, 2005 and 2013) at the country level. Across all the reported years, female appeared to be showing higher participation in the informal economy. However, a gradual decrease in their participation has been observed from as high as 85.7% in 1999 to just 17.6 % in 2005 and 23.1% by 2013.

Table 3-3: Percentage of labor participation rate in the informal economy by sex, region and years

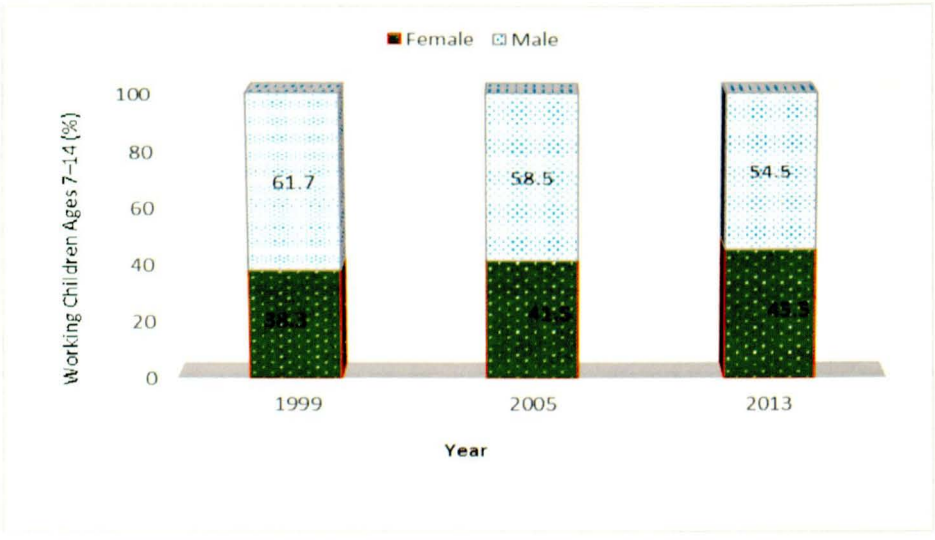
	1999		2005		2013	
Region	Female	Male	Female	Male	Female	Male
Country Total	85.7	56.4	17.6	8.8	23.1	14.7
Tigray	58.1	33.5	17.2	7.0	16.5	7.7
Afar	81.2	46.0	36.2	12.1	59.9	65.6
Amhara	93.1	67.6	12.7	3.8	15.5	6.8
Oromia	89.6	65.1	19.9	11.1	24.5	15.1
Somali	93.2	58.4	24.3	12.6	73.2	65.5
Benishangul-Gumuz	88.0	51.1	21.4	13.9	24.1	15.8
SNNP	93.6	66.4	18.1	9.5	27.9	19.3
Gambela	69.4	18.2	48.2	15.8	58.6	44.3
Harari	71.6	33.2	45.4	14.4	39.3	14.7
Addis Ababa	31.7	25.3	22.6	20.6	7.0	6.7
Dire Dawa	60.6	33.0	38.8	26.8	50.8	35.1

(Source: CSA, NLFS, 1999, 2005 and 2013)

Across all the regions and two city administrations, the employed population in the informal economy for female is reported declining as compared the year 1999 with that of 2013 (Table 3-3). Specifically, from 1999 to 2013, major decrease in the female employment in the informal sector has been observed in Amhara (77.6%), SNNP (65.7%), Oromia (65.1%) and Benishangul-Gumuz (63.9%) regions.

Figure 3-4 describes the statistics for the working children (aged 7-14 years), based on the CSA's LFS. Working male children are more than female in productive work across all the three survey periods. Specifically, while an increasing trend is reported in female children employment, from 38.3% to 41.5% to 45.5% in 1999, 2005 and 2013, respectively, opposite trend has been witnessed for male (children) over the same years.

Figure 3-4: Working children (% of children ages 7–14) by sex and survey years, Country Level



(Source: CSA, NLFS, 1999, 2005 and 2013)

Table 3-4: Working children (% of children ages 7–14) by sex, region and survey years

	1999		2005		2013	
Region	Female	Male	Female	Male	Female	Male
Country Total	38.3	61.7	41.5	58.5	45.5	54.5
Tigray	37.7	62.3	43.7	56.3	47.7	52.3
Afar	32.7	67.3	41.9	58.1	46.8	53.2
Amhara	35.6	64.4	42.0	58.0	46.9	53.1
Oromia	40.8	59.2	40.7	59.3	43.6	56.4
Somali	40.0	60.0	43.9	56.1	37.6	62.4
Benishangul-Gumuz	52.7	47.3	46.0	54.0	48.1	51.9
SNNP	36.1	63.9	40.9	59.1	47.4	52.6
Gambela	42.7	57.3	0.0	100.0	43.8	56.2
Harari	37.7	62.3	37.7	62.3	51.6	48.4
Addis Ababa	57.3	42.7	60.4	39.6	81.9	18.1
Dire Dawa	38.5	61.5	45.3	54.7	51.7	48.3

(Source: CSA, NLFS, 1999, 2005 and 2013)

An increasing pattern in female (children 7-14 years of age) employment is also observed in Tigray, Afar, Amhara, SNNP, and Addis Ababa city administration and Dire Dewa administrations, across the 1999, 2005 and 2013 LFS (Table 3-4). More female children than Male in employment is observed in Addis Ababa city administration (60.4%), and in Harari region (51.6%) and Dire Dawa administration (51.7%) managed to command over half of the female children representation in employment by 2013.

Wages and Salaries

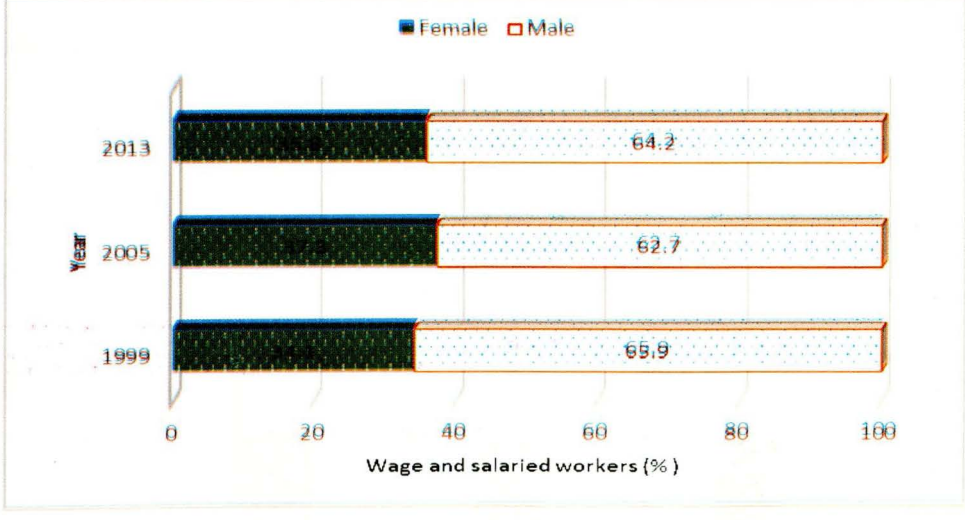
Wages are important from the workers' point of view and represent a measure of the level and trend of their purchasing power and an approximation of their standard of living. For most employees, wages – the income they receive from paid employment – represent the main part of their total labor-related income. Average wages symbolize one of the most important aspects of labor market information, as wages are a substantial form of income.

Salary is a form of periodic payment from an employer to an employee, which may be specified in an employment contract. It is a fixed amount of money or compensation paid to an employee by an employer in return for work performed. It is commonly paid in fixed intervals.

Wage is monetary compensation (or remuneration, personnel expenses, labor) paid by an employer to an employee in exchange for work done. Payment may be calculated as a fixed amount for each task completed (a *task wage* or piece rate), or at an hourly or daily rate, or based on an easily measured quantity of work done.

Figure 3-5 presents data on wage and salaried workers (aged 15 years and above) by sex and survey years. Accordingly, male employed population dominates over female in fetching more employment of wage and salary worker earners across the year 1999, 2005 and 2013.

Figure 3-5: Wage and salaried workers (% of employed ages 15+) by sex and Survey Years, Country Level



(Source: CSA, NLFS, 1999, 2005 and 2013)

Table 3-5: Wage and salaried workers (% of employed ages 15+) by sex, Region and Survey Years

Region	1999		2005		2013	
	Female	Male	Female	Male	Female	Male
Country Total	34.1	65.9	37.3	62.7	35.8	64.2
Tigray	50.2	49.8	46.7	53.3	40.0	60.0
Afar	28.1	71.9	29.9	70.1	37.5	62.5
Amhara	26.7	73.3	33.8	66.2	30.8	69.2
Oromia	27.6	72.4	31.1	68.9	31.2	68.8
Somali	27.7	72.3	30.0	70.0	26.4	73.6
Benishangul-Gumuz	30.4	69.6	29.8	70.2	29.7	70.3
SNNP	27.6	72.4	33.6	66.4	34.3	65.7
Gambela	27.3	72.7	30.8	69.2	37.0	63.0
Harari	30.8	69.2	38.4	61.6	39.3	60.7
Addis Ababa	43.0	57.0	44.9	55.1	45.9	54.1
Dire Dawa	37.7	62.3	41.2	58.8	39.7	60.3

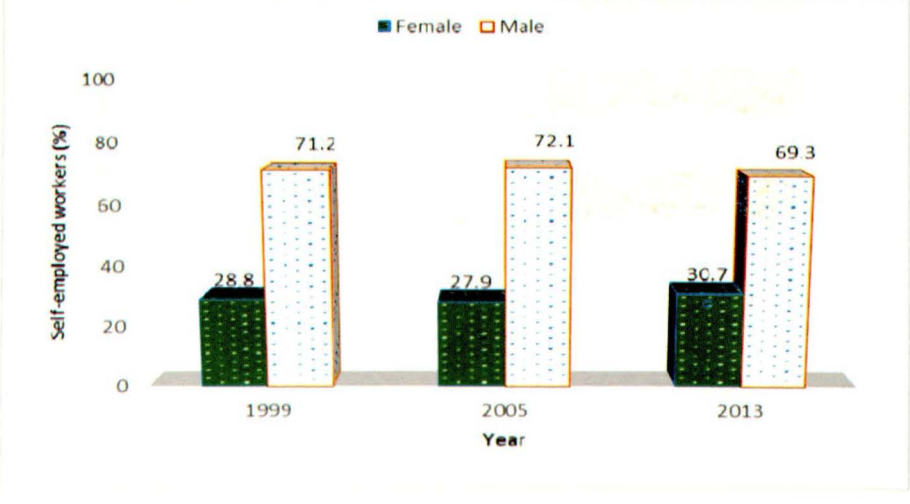
(Source: CSA, NLFS, 1999, 2005 and 2013)

Furthermore, Table 3-5 illustrates a declining trend in female employed population (aged 15 years above) as wage and salaried workers in Tigray and Benishangul-Gumuz regions, across the survey years (1999, 2005 and 2013). Contrary to that a gradual increase in the percentage of wage and salaried female is observed in the regions of Afar, Oromia, SNNP, Gambela, Harari and Addis Ababa city administration between the same time periods.

Self-employment

***Self-employment or Own*-account workers:** Persons working on own-account or with one or a few partners in a "self-employment job", not engaging any "employees", on a continuous basis.

igure 3-6: Self-employed persons (% of employed ages 15+) by sex and survey years, Country Level



(Source: CSA, NLFS, 1999, 2005 and 2013)

Figure 3-6 reveals the status of self-employed persons (aged 15 years and above) by sex and survey years (1999, 2005 and 2013). Accordingly, across all the survey years, more male command self-employment than female. Specifically, while little over one-fourth (28.8%) female is reported to be self-employed in 1999, their share declined slightly to 27.9% in 2005 with a further increase to 30.7% by 2013.

Table 3-6: Self-employed persons (% of employed ages 15+) by sex, region and survey years

	1999		2005		2013	
Region	Female	Male	Female	Male	Female	Male
Country Total	28.8	71.2	27.9	72.1	30.7	69.3
Tigray	35.9	64.1	32.6	67.4	30.8	69.2
Afar	31.6	68.4	29.6	70.4	29.2	70.8
Amhara	23.8	76.2	23.0	77.0	25.0	75.0
Oromia	28.7	71.3	27.4	72.6	30.5	69.5
Somali	25.5	74.5	29.0	71.0	28.6	71.4
Benishangul-Gumuz	23.2	76.8	26.7	73.3	26.5	73.5
SNNP	31.6	68.4	31.7	68.3	36.7	63.3
Gambela	34.4	65.6	64.0	36.0	40.6	59.4
Harari	43.8	56.2	45.5	54.5	44.8	55.2
Addis Ababa	38.4	61.6	39.1	60.9	33.6	66.4
Dire Dawa	42.8	57.2	49.1	50.9	40.0	60.0

(Source: CSA, NLFS, 1999, 2005 and 2013)

With respect to regions, male is more than female for self-employment, except that for Gambela region in 2005 (where 64% female are observed being self-employed). While there appears a gradual increase in female self-employment in SNNP region, a downward trend has been observed in Tigray and Afar regions across the years 1999, 2005 and 2013 (Table 3-6). However, female self-employment increased in the Amhara (23% to 25%), Oromia (27.4% to 30.5%) and SNNP (31.7% to 36.7%) regions between 2005 and 2013.

Contributing family workers (Unpaid family workers)

> ***Contributing family workers (Unpaid family workers)***
>
> *Contributing family workers* are workers who hold a 'self-employment' job in a market-oriented establishment operated by a related person living in the same household, who cannot be regarded as a partner, in a "self-employment job", not engaging any "employee" on a continuous basis.

Figure 3-7: Unpaid family workers (% of employed ages 15+) by sex and Survey Years, Country Level



(Source: CSA, NLFS, 1999, 2005 and 2013)

Figure 3-7 highlights the availability of more female unpaid-family workers (aged 15 years and above) as compared to male. However, a minor decline in the percentage of female unpaid-family workers has been seen from 71% in 2005 to 68% in 2013.

With respect to the regions, there appeared to be a gradual increasing trend (Table 3-7) in the percentages of female unpaid-family workers in Afar and Harari regions. Moreover, between 2005 and 2013, a significant increase in female unpaid-family workers position is observed in Afar, Gambela and Harari regions and Dire Dawa administration.

Table 3-7: Unpaid family workers (% of employed ages 15+) by sex, region and survey years

	1999		2005		2013	
Region	Female	Male	Female	Male	Female	Male
Country Total	66.4	33.6	71.4	28.6	67.8	32.2
Tigray	65.1	34.9	67.5	32.5	65.0	35.0
Afar	50.6	49.4	65.0	35.0	69.3	30.7
Amhara	68.0	32.0	71.2	28.8	69.8	30.2
Oromia	65.0	35.0	71.8	28.2	67.3	32.7
Somali	63.1	36.9	67.1	32.9	63.6	36.4
Benishangul-Gumuz	76.4	23.6	78.3	21.7	77.1	22.9
SNNP	67.8	32.2	72.1	27.9	66.2	33.8
Gambela	68.1	31.9	48.9	51.1	68.7	31.3
Harari	38.9	61.1	56.3	43.7	66.4	33.6
Addis Ababa	46.3	53.7	59.0	41.0	56.2	43.8
Dire Dawa	65.0	35.0	51.2	48.8	73.4	26.6

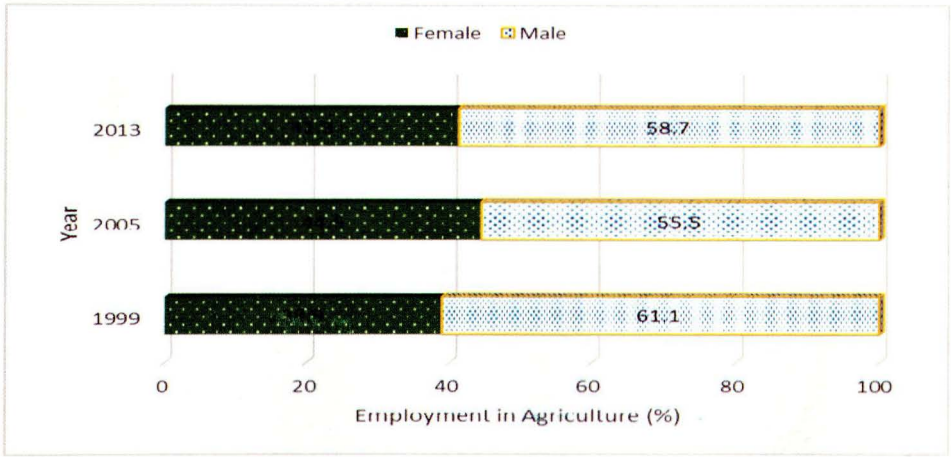
Source: CSA, NLFS, 1999, 2005 and 2013)

Employment by Sector

Industry or branch of economic activity refers to the activity of the establishment in which an employed person worked during the time-reference period. It describes the activity of the establishment, and not the type of work that the individual does when working for that establishment. For example, a person may work as a security guard in a department store, an accountant at a hotel or bus driver who drives passengers to the aircraft at an airport.

Figure 3-8 presents employment statistics in agriculture by sex and survey years. Accordingly, more male is employing in agriculture as opposed to female across all the survey years (1999, 2005 and 2013). Female percentage of employment in agriculture has decreased from 44.5% in 2005 to 41.3% in 2013.

Figure 3-8: Employment in agriculture (% of employed ages 15+) by sex and survey years, Country Level



(Source: CSA, NLFS, 1999, 2005 and 2013)

There is a gradual decrease in female employment in agriculture in Dire Dawa administration as opposed to Benishangul-Gumuz region a reverse trend is observed between 1999 and 2013 (Table 3-8). Specifically, female scored more employment in agriculture in Afar and Benishangul-Gumuz regions between 2005 and 2013, unlike the other regions.

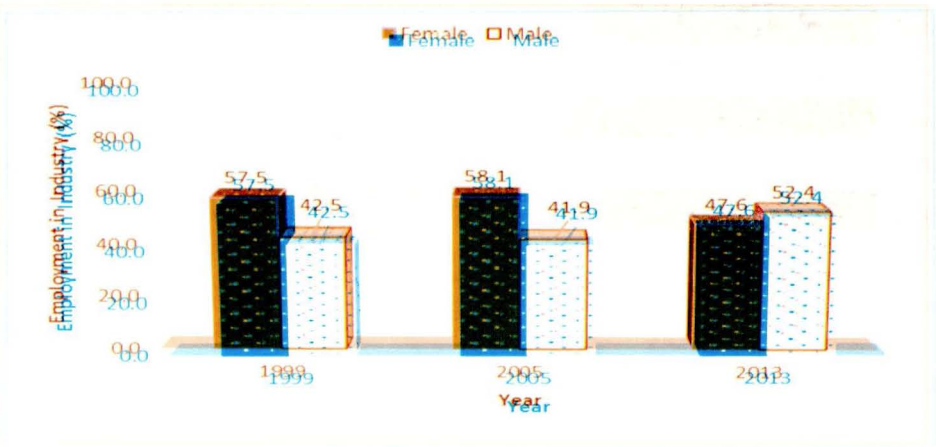
Table 3-8: Employment in agriculture (% of employed ages 15+) by sex, region and survey years

Region	1999		2005		2013	
	Female	Male	Female	Male	Female	Male
Country Total	38.9	61.1	44.5	55.5	41.3	58.7
Tigray	42.2	57.8	45.1	54.9	40.9	59.1
Afar	27.4	72.6	26.7	73.3	31.5	68.5
Amhara	37.8	62.2	43.6	56.4	41.5	58.5
Oromia	39.2	60.8	44.1	55.9	41.2	58.8
Somali	32.0	68.0	39.3	60.7	35.6	64.4
Benishangul-Gumuz	45.8	54.2	46.8	53.2	48.1	51.9
SNNP	39.5	60.5	46.5	53.5	42.1	57.9
Gambela	32.7	67.3	69.3	30.7	45.1	54.9
Harari	22.9	77.1	30.2	69.8	29.6	70.4
Addis Ababa	32.6	67.4	37.3	62.7	22.2	77.8
Dire Dawa	42.0	58.0	41.9	58.1	32.8	67.2

(Source: CSA, NLFS, 1999, 2005 and 2013)

Figure 3-9 depicts the condition of employment in industrial sector in Ethiopia by sex and survey years. Accordingly, more female employed in 1999 (57.5%) and in 2005 (58.1%) than males while less female employed (47.6%) than male in the year 2013.

Figure 3-9: Employment in industry (% of employed ages 15+) by sex and survey years



(Source: CSA, NLFS, 1999, 2005 and 2013)

Pertaining to the regions, as presented in Table 3-9, a gradual decrease in female employment in industry has been observed in Tigray, Oromia, Somali, Harari and Dire Dawa Administration across all the three years (1999, 2005 and 2013). Moreover, except an increase in female employment in industry in Gambela (36.7% to 57.4%) and Benishangul-Gumuz (48.6% to 49.5

%) regions, no other region and the two city administrations has witnessed such a trend from 2005 to 2013.

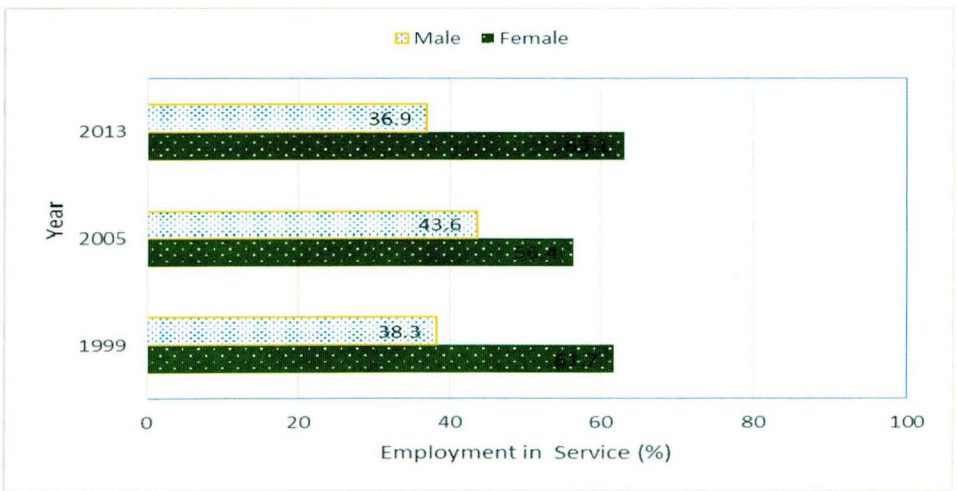
Table 3-9: Employment in industry (% of employed ages 15+) by sex, region and survey years

Region	1999		2005		2013	
	Female	Male	Female	Male	Female	Male
Country Total	57.5	42.5	58.1	41.9	47.6	52.4
Tigray	57.6	42.4	54.4	45.6	44.9	55.1
Afar	63.5	36.5	74.6	25.4	32.4	67.6
Amhara	62.7	37.3	67.2	32.8	56.2	43.8
Oromia	60.2	39.8	57.1	42.9	47.0	53.0
Somali	85.2	14.8	58.6	41.4	42.9	57.1
Benishangul-Gumuz	55.2	44.8	48.6	51.4	49.5	50.5
SNNP	61.8	38.2	68.9	31.1	55.4	44.6
Gambela	50.5	49.5	36.7	63.3	57.4	42.6
Harari	40.7	59.3	31.3	68.7	24.5	75.5
Addis Ababa	31.9	68.1	32.0	68.0	26.7	73.3
Dire Dawa	33.8	66.2	29.6	70.4	27.9	72.1

(Source: CSA, NLFS, 1999, 2005 and 2013)

As indicated in Figure 3-10, females lead over male in fetching employment in service sector from 61.7% in 1999 to 63.1% in 2013.

Figure 3-10: Employment in service (% of employed ages 15+) by sex and survey years, Country Level



(Source: CSA, NLFS, 1999, 2005 and 2013)

With regard to female employment in services (Table 3-10), Harari region alone shows gradual increase from 50.7% in 1999 to 59.1% in 2005 and 70% in 2013 (70%). However, except in Addis Ababa city Administration, female employment in service sector employment has increased between 2005 and 2013.

Table 3-10: Employment in service (% of employed ages 15+) by sex, regions and survey years

Region	1999		2005		2013	
	Female	Male	Female	Male	Female	Male
Country Total	63.1	36.9	56.4	43.6	61.7	38.3
Tigray	64.5	35.5	60.7	39.3	61.8	38.2
Afar	53.3	46.7	43.2	56.8	47.3	52.7
Amhara	64.7	35.3	59.8	40.2	63.2	36.8
Oromia	64.7	35.3	56.4	43.6	65.7	34.3
Somali	52.4	47.6	50.4	49.6	65.0	35.0
Benishangul-Gumuz	57.7	42.3	50.4	49.6	57.6	42.4
SNNP	67.4	32.6	59.5	40.5	67.6	32.4
Gambela	53.4	46.6	42.3	57.7	49.0	51.0
Harari	50.7	49.3	59.1	40.9	70.0	30.1
Addis Ababa	45.2	54.8	47.9	52.1	43.8	56.2
Dire Dawa	52.8	47.2	52.0	48.0	60.6	39.4

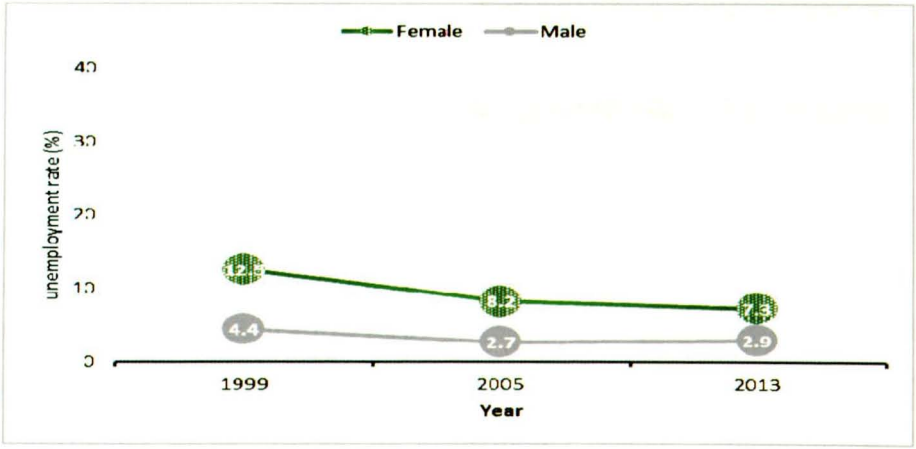
(Source: CSA, NLFS, 1999, 2005 and 2013)

Unemployment Rate

The unemployment rate, the most commonly used indicator of the labor market, is defined as the proportion resulting from dividing the total number of unemployed persons aged 15 years and above by the corresponding labor force, which itself is the sum of the total persons employed and unemployed in a particular group.

Figure 3-11 presents the statistics of unemployment for population age 15 years and above by sex and survey years. Accordingly, a gradual decrease in female unemployment has been observed across the survey years (1999, 2005 and 2013).

Figure 3-11: Unemployment rate age 15 and above by sex and survey years, Country Level



(Source: CSA, NLFS, 1999, 2005 and 2013)

A falling trend in female (aged 15 years and above) unemployment rate is well observed in the Amhara, Oromia, Somali, Harari and Addis Ababa City Administration, across the years (Table 3-11). There is also an increasing pattern in female unemployment rate between 2005 and 2013 in Tigray and SNNP regions.

Table 3-11: Unemployment rate age 15 and above by sex, region and survey years

Region	1999		2005		2013	
	Female	Male	Female	Male	Female	Male
Country Total	12.5	4.4	8.2	2.7	7.3	2.9
Tigray	8.3	3.8	8.2	3.5	8.7	3.7
Afar	20.7	3.6	21.1	5.7	10.7	5.3
Amhara	11.7	5.0	5.6	1.5	5.6	2.2
Oromia	10.0	2.2	7.2	1.8	5.2	1.8
Somali	21.2	6.3	16.8	7.3	6.2	3.5
Benishangul-Gumuz	6.7	3.1	7.0	1.6	4.2	1.8
SNNP	9.1	2.1	5.7	1.3	6.4	2.5
Gambela	20.3	5.5	36.9	14.1	7.7	1.4
Harari	33.6	11.3	24.4	10.8	12.2	6.7
Addis Ababa	48.1	27.3	40.3	22.5	33.2	15.8
Dire Dawa	31.4	17.7	33.7	14.8	21.3	10.9

(Source: CSA, NLFS, 1999, 2005 and 2013)

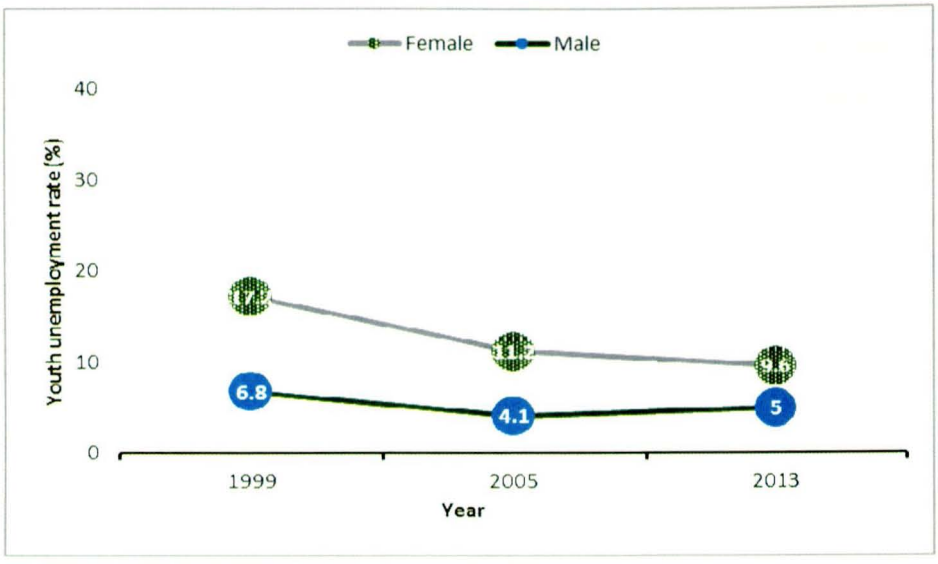
Youth Unemployment Rate

According to the definitions used by the United Nations and the ILO, the youth are persons of age 15-24. In the Ethiopian case, as per the definition in the National Youth Policy (2004), persons in the age group 15-29 years are classified as youth.

Youth is an impressionable stage, a time of emotional development, rapid change, idealism, adventure and even rebellion, which, if not well managed, may be channeled into harmful, unproductive and destructive occupations and pastime.

Figure 3-12 describes the youth (in the age group of 15-24 years) unemployment rate by sex at country level, as reported in the CSA's LFS of 1999, 2005 and 2013. In general, females are relatively more unemployed as compared to their male counterparts. However, there appeared to be a decreasing unemployment rate for male from 1999 to 2005 and an increasing unemployment rate from 2005 to 2013.

Figure 3-12: Youth unemployment rate (% of labor force ages 15–24) by sex and survey years, Country Total



(Source: CSA, NLFS, 1999, 2005 and 2013)

Furthermore, Table 3-12 presents the region specific unemployment statistics of Ethiopian youth (in the age group of 15-24 years) complied from the 1999, 2005 and 2013 LFS. A gradual decrease in female unemployment rates throughout the years is observed in Afar, Oromia, Somali, Harari and Addis Ababa City Administration.

Table 3-12: Youth unemployment rate (% of labor force ages 15–24) by sex, regions and survey years

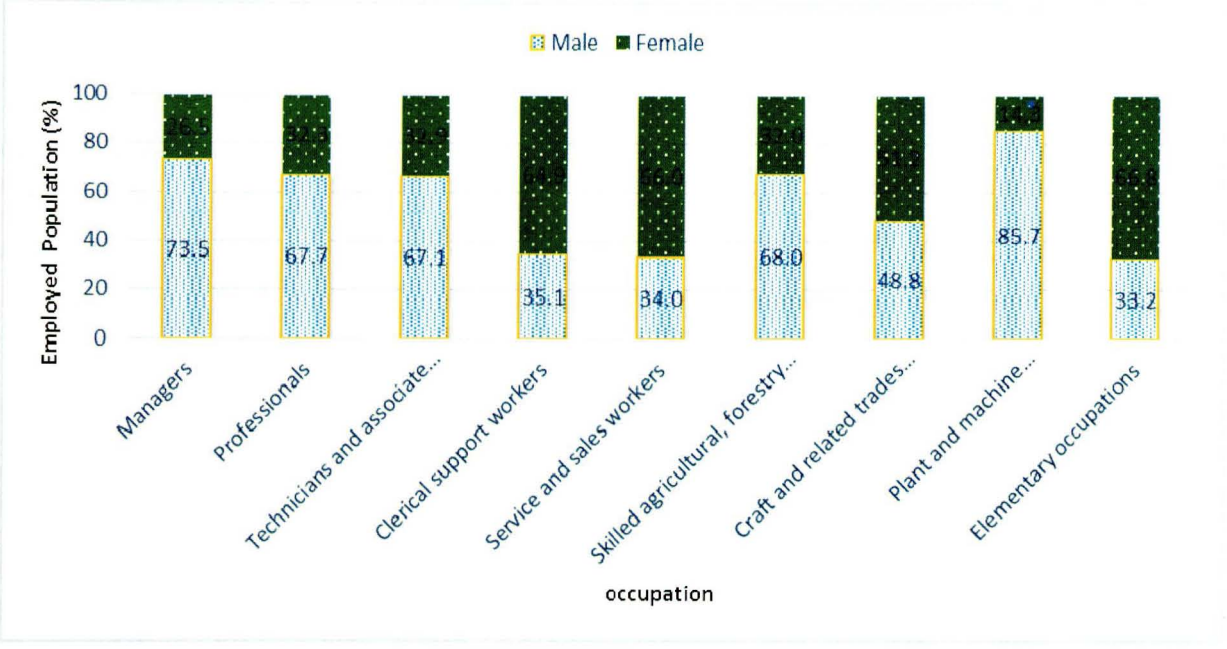
	1999		2005		2013	
Region	Female	Male	Female	Male	Female	Male
Country Total	17.2	6.8	11.2	4.1	9.6	5.0
Tigray	12.0	7.2	12.2	5.5	11.0	5.7
Afar	26.4	5.3	25.5	6.4	11.1	5.8
Amhara	16.4	6.3	7.7	2.5	8.1	4.1
Oromia	13.9	3.9	10.1	2.5	8.1	3.4
Somali	26.3	11.0	21.2	10.5	9.4	8.0
Benishangul-Gumuz	8.5	6.3	9.4	4.2	6.0	3.7
SNNP	13.0	4.5	8.6	2.3	9.3	4.8
Gambela	32.7	10.4	49.0	32.8	14.1	2.3
Harari	42.0	16.1	36.1	20.6	14.0	14.1
Addis Ababa	57.3	41.8	42.9	36.0	30.3	31.7
Dire Dawa	41.3	25.0	45.6	21.2	22.3	19.1

(Source: CSA, NLFS, 1999, 2005 and 2013)

Employment by Occupation

Occupation refers to the kind of work usually done by a person employed (or the kind of work done previously or wanted if the person is unemployed) irrespective of the branch of economic activity or the Status in employment of the person. An occupational classification system puts together occupations of similar tasks and duties or in terms of the similarity of skills required to fulfill the tasks and duties of the job.

Figure 3-13: Percentage of employed population age 15 and over by sex and occupation-2013, Country Level



(Source: CSA, NLFS, 2013)

Pertaining to the employed population (age 15 years and above), Figure 3-13 presents the occupational status from 2013 LFS of the CSA. Accordingly, female dominance, as compared to male, can be seen in service and sales workers (66%), clerical/supportive staff (64.9%), craft and related trade workers (51.2%) and elementary occupations (66.8%). However, male dominates the occupations that deal with plant/machine staff (85.7%), managers (73.5%), skilled agricultural, forestry and fishery workers (68%), professionals (67.7%) and technicians (67.1%).

With respect to the regional distribution of employed population (aged 15 years and above) by sex, females are more commanding the positions of clerical support workers, service and sales

workers, craft and related trade workers and engaged with elementary occupations, with varying percentages, in almost all the regions and two city administrations (Table 3-13).

Table 3-13: Percentage of employed population aged 15 and over by sex, region and occupation-2013

Region	Sex	Occupation								
		Managers	Professionals	Technicians and associate professionals	Clerical support workers	Service and sales workers	Skilled agricultural, forestry and fishery workers	Craft and related trades workers	Plant and machine operators, and assemblers	Elementary occupations
Country Total	Male	73.5	67.7	67.1	35.1	34.0	68.0	48.8	85.7	33.2
	Female	26.5	32.3	32.9	64.9	66.0	32.0	51.2	14.3	66.8
Tigray	Male	70.1	62.1	60.0	38.4	37.5	77.2	49.4	88.7	29.2
	Female	29.9	37.9	40.0	61.6	62.5	22.8	50.6	11.3	70.8
Afar	Male	95.4	77.8	76.8	58.6	45.0	80.9	33.8	99.2	35.9
	Female	4.6	22.2	23.2	41.4	55.0	19.1	66.2	0.7	64.1
Amhara	Male	74.0	73.0	64.2	31.2	31.3	71.0	43.2	78.4	32.8
	Female	26.0	27.0	35.8	68.8	68.7	29.0	56.8	21.6	67.2
Oromia	Male	74.6	68.3	70.8	31.1	32.4	65.1	52.8	82.0	34.0
	Female	25.4	31.7	29.2	68.9	67.6	34.9	47.2	18.0	66.0
Somali	Male	85.4	80.5	78.2	56.9	42.1	69.7	48.4	97.3	41.2
	Female	14.6	19.5	21.8	43.1	57.9	30.3	51.6	2.7	58.8
Benishangul-Gumuz	Male	62.1	78.3	77.9	36.1	34.2	55.5	59.2	95.7	31.7
	Female	37.9	21.7	22.1	63.9	65.8	44.5	40.8	4.3	68.3
S.N.N.P	Male	77.6	69.8	70.7	41.1	31.9	68.6	37.2	90.1	31.5
	Female	22.4	30.2	29.3	58.9	68.1	31.4	62.8	9.9	68.5
Gambella	Male	75.0	74.9	70.8	41.3	35.1	61.0	48.3	98.6	31.0
	Female	25.0	25.1	29.2	58.7	64.9	39.0	51.7	1.5	69.0
Harari	Male	70.5	71.9	60.6	26.9	31.7	80.5	74.0	95.2	33.3
	Female	29.5	28.1	39.4	73.1	68.3	19.5	26.0	4.8	66.7
Addis Ababa	Male	67.3	61.1	58.7	33.7	44.6	80.6	75.9	89.0	45.0
	Female	32.7	38.9	41.3	66.3	55.4	19.4	24.1	11.0	55.0
Dire Dawa	Male	84.5	78.4	67.7	32.6	40.7	80.9	71.9	81.6	34.6
	Female	15.5	21.5	32.3	67.4	59.3	19.1	28.1	18.4	65.4

(Source: CSA, NLFS, 1999, 2005 and 2013)

Like at country level, there is a similar domination of male can be seen for managerial positions, professionals, technicians as well as plant and machine operators in all the regions and two city administrations (Table 3-13).

Hours of work

Two measurements related to working time are included in hours of work in order to give an overall picture of the time that employed individuals throughout the world devote to work activities. The first measure relates to the hours that employed persons work per week while the second measure is the average annual hours actually worked per person.

Figure 3-14: Time Spent (Hours Per Week) of currently employed population aged ten years and above by sex and years, Country Total



(Source: CSA, NLFS, 1999, 2005 and 2013)

With respect to the time spent (hours per week) of currently employed population (aged 10 years and above), Figure 3-14 highlights the statistics by sex across the three survey years (1999, 2005 and 2013). Male are spending relatively more time than female in employment across all the survey years. However, a gradual increase in the representation of female spending time is well observed from 18.4% in 1999 to 27.4% in 2013.

Table 3-14: Time Spent (Average Hours per Week) of currently employed population aged ten years and above by sex, region and years

Region	1999		2005		2013	
	Female	Male	Female	Male	Female	Male
Country Total	18.4	27.1	22.1	33.9	27.4	36.8
Tigray	15.7	23.8	35.8	42.6	25.9	34.8
Afar	35.5	43.3	35.9	45.8	35.6	51.6
Amhara	16.8	29.3	20.6	35.6	23.1	35.3
Oromia	17.6	25.6	20.6	32.3	28.8	37.4
Somali	32.6	36.8	31.3	39.8	37.1	47.4
Benishangul-Gumuz	15.1	20.7	19.4	27.2	26.8	33.5
SNNP	17.7	24.3	22.2	32.0	26.4	33.9
Gambela	19.9	25.1	36.4	47.6	25.8	32.2
Harari	27.8	32.1	31.5	36.6	35.8	42.9
Addis Ababa	43.5	45.0	47.5	49.8	47.5	50.0
Dire Dawa	36.1	37.8	41.8	46.6	37.9	44.8

(Source: CSA, NLFS, 1999, 2005 and 2013)

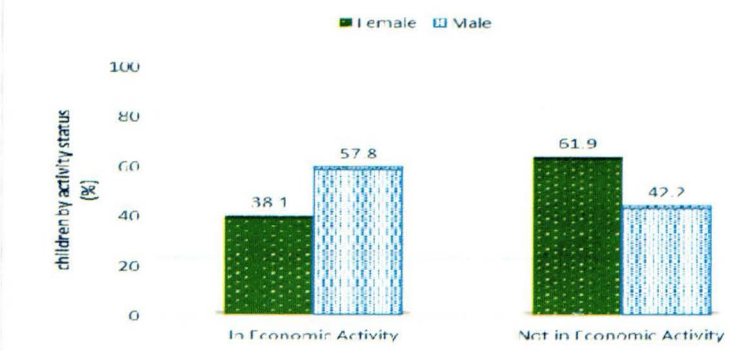
Across all the regions and the two city administrations, employed male spent more time than female in average hours per week between 1999 and 2013 (Table 3-14).

3.2. Child Labor Force

As highlighted above, the economic activity status reflects the size and distribution of the workforce of economically active and non-active population during a given period and specified area. As a result, while information on economic activity status of all persons aged ten years and above is collected through CSA's NLFS, data pertaining to children specific activities (economic and non-economic) are obtained from National Child Labor Force Survey (NCLFS) of 2015 targeting the age from five to seventeen years.

Accordingly, Figure 3-15 depicts the statistics on the distribution of the children in or not in economic activity by sex. While more male (61.9%) are reported to be engaged in economic activities (e.g., working), female (57.8%) participate more in non-economic activities (e.g., household duties).

Figure 3-15: Distribution of children (age 5-17 years) by activity status and sex, Country Level- Year 2015



(Source: CSA, NCLFS, 2015)

With respect to the regional distribution of children by activity status and sex, while males are reported to be participated in economic activities, across all the regions in 2015 except Addis Ababa, (i, e, more female take part in non-economic activities) (Table 3-15). Thus, there remains variation in children participation being male and female in economic and non-economic activities. For example, it is only in Addis Ababa City Administration where relatively less male children (37.9%) are found to be engaged in economic activities, while their female (62.1%) counterparts succeeded in participating in working. Also, while male children from Afar (50.8%) and Somali (52.4%) regions are found more engaged in non-economic activities, relatively more female take part in such activities in Amhara (62.1%), Oromia (59 %) and Tigray (57.4 %) and SNNP (56.7 %) regions.

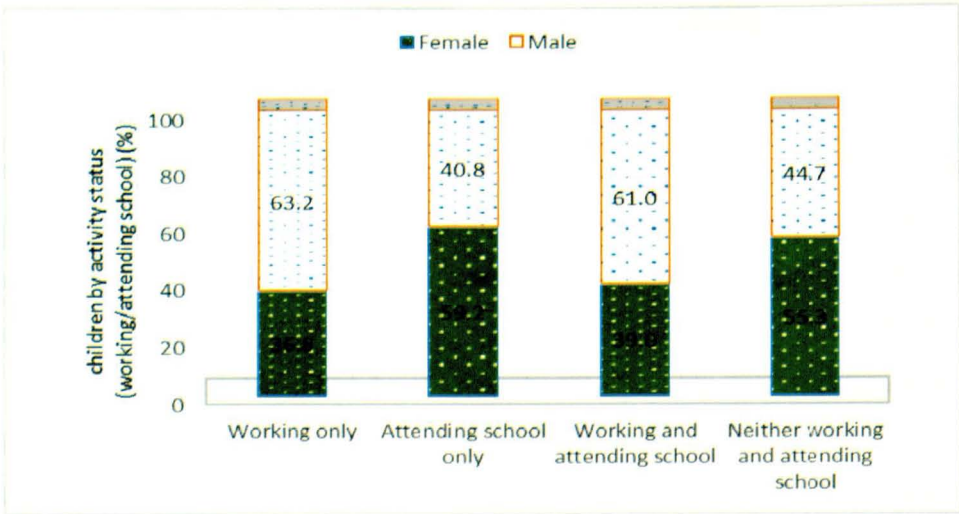
Table 3-15: Distribution of children (age 5-17 years) by activity status, sex and Region- Year 2015

	In Economic Activity		Not in Economic Activity	
Region	Female	Male	Female	Male
Country Total	38.1	57.8	61.9	42.2
Tigray	39.4	60.6	57.4	42.6
Afar	38.3	61.7	49.2	50.8
Amhara	41.5	58.5	62.1	37.9
Oromia	36.3	63.7	59.0	41.0
Somali	38.6	61.4	47.6	52.4
Benishangul-Gumuz	40.2	59.8	53.6	46.4
SNNP	35.5	64.5	56.7	43.3
Gambela	32.9	67.1	52.1	47.9
Harari	39.6	60.4	54.1	45.9
Addis Ababa	62.1	37.9	53.4	46.6
Dire Dawa	47.0	53.0	50.6	49.4

(Source: CSA, NCLFS, 2015)

Figure 3-16 presents the statistics on the percentage of children aged 5-17 by activity status and sex in the year 2015. Accordingly, the majority of male children are reported to working (63.2%) and working and attending school (61%), while more female participate in attending school (59.2%) and neither working nor attending school (55.3%).

Figure 3-16: Percentage of children aged 5-17 by activity status (working/attending school) and sex, Country Total- year 2015



(Source: CSA, NCLFS, 2015)

With respect to the regional distribution of children by activity status (working and/or attending school) and sex, Table 3-16 presents the statistics from CSA's NCLFS of 2015. Accordingly, while males are reported to be more working only and working and attending schools across all the regions and Dire Dawa Administration, except Addis Ababa City Administration in 2015, more female take part in either attending schools or neither working nor attending school. Though variations are observed in children participation, being male and female, in activities like working, attending schools, both or neither of these. For example, it is in Addis Ababa City Administration alone where relatively more female children are found engaged in working (62.3%), attending schools (52.6%), doing both (61.9%) and doing none of these (61.8%) than their male counterparts

Table 3-16: Percentage of children aged 5-17 by activity status (working/attending school), sex and region- year 2015

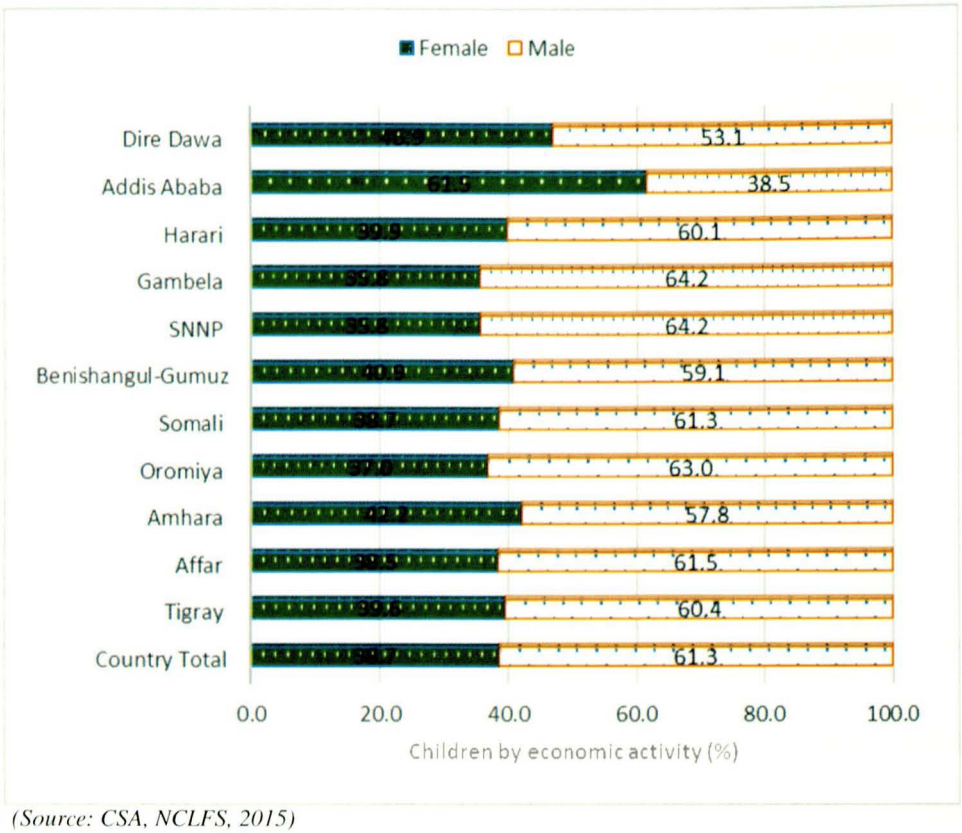
Region	Working only		Attending school only		Working and attending school		Neither working and attending school	
	Female	Male	Female	Male	Female	Male	Female	Male
Country Total	36.8	63.2	59.2	40.8	39.0	61.0	55.3	44.7
Tigray	34.3	65.7	58.9	41.1	41.9	58.1	54.1	45.9
Afar	40.6	59.4	50.0	50.0	35.3	64.7	48.1	51.9
Amhara	34.7	65.3	64.4	35.6	45.3	54.7	57.8	42.2
Oromia	37.0	63.0	61.0	39.0	35.7	64.3	56.1	43.9
Somali	41.1	58.9	44.3	55.7	32.3	67.7	50.5	49.5
Benishangul-Gumuz	40.7	59.3	55.2	44.8	40.0	60.0	51.0	49.0
SNNP	37.7	62.3	58.3	41.7	34.5	65.5	54.1	45.9
Gambela	39.2	60.8	52.6	47.4	31.7	68.3	50.9	49.1
Harari	49.2	50.8	52.6	47.4	35.1	64.9	60.6	39.4
Addis Ababa	62.3	37.7	52.6	47.4	61.9	38.1	61.8	38.2
Dire Dawa	43.6	56.4	48.4	51.6	49.8	50.2	59.6	40.4

(Source: CSA, NCLFS, 2015)

Children engaged in economic activities

Economic activities include all activities within the UN System of National Accounts production boundary (i.e., the production of goods and services for the market, or production of goods for self-consumption). Economic activity is a broad concept that encompasses most productive activities by children, including unpaid and illegal work, work in the informal sector, and the production of goods for own consumption. Therefore, a child is considered as working if he/she had a job or business, or was engaged either as paid or unpaid in the family or other household's farm or business, at any time for at least one hour during the week prior to the survey. The terms: 'children in economic activities', 'children in employment' and 'working children' are used interchangeably in this report

Figure 3-17: Percent of children aged 5-17 years who participated in economic activity in the last 12 months by Sex-Year 2015

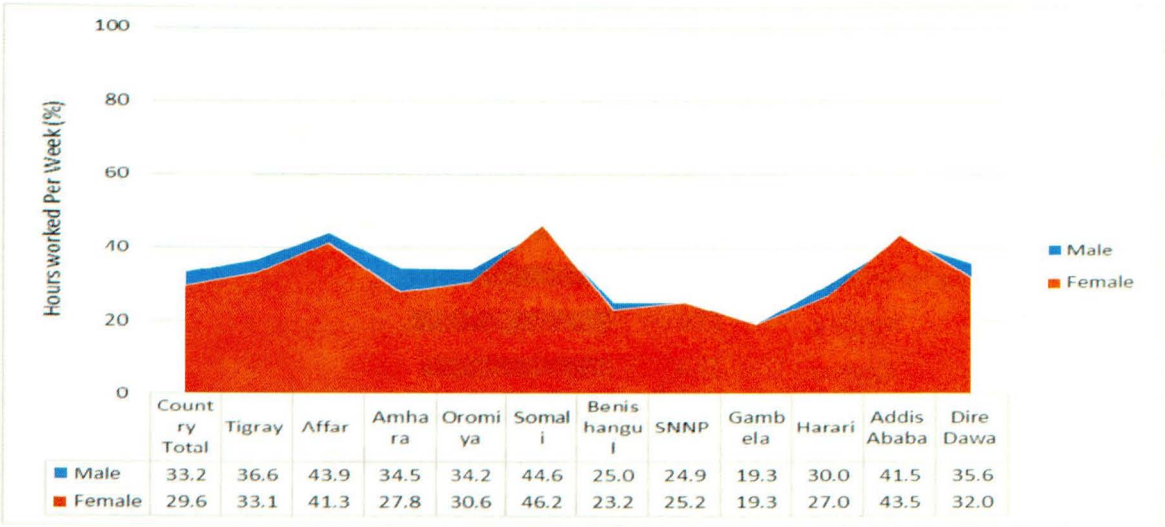


(Source: CSA, NCLFS, 2015)

Figure 3-17 presents the regional statistics on the percentage of children (aged 5-17) who participated in economic activity in the last 12 months, by sex in the year 2015. Accordingly, the majority of the male children are reported to be working across all the regions, except in Addis Ababa City Administration, where higher female participation (61.5%) in work is observed. Moreover, female children (aged 5-17 years) are less participating in economic activities at country level (39 %).

Furthermore, Figure 3-18 reveals the sex-disaggregated statistics of children (aged 5-17 years) by hours worked per week in economic activities. Thus, female children appeared to be engaged in working for more hours per week, as compared to their male counterparts in Addis Ababa City Administration, SNNP, and Somali as opposed to other regions. While in Gambela region, children of both sexes worked alike (19.3%) per week. At national level, male children aged 5-17 spent more hours per week in economic activities than their counter parts (Figure 3-18).

Figure 3-18: Distribution of children 5-17 years by hours worked per week by sex and Region



	Country Total	Tigray	Affar	Amhara	Oromiya	Somali	Benishangul	SNNP	Gambela	Harari	Addis Ababa	Dire Dawa
Male	33.2	36.6	43.9	34.5	34.2	44.6	25.0	24.9	19.3	30.0	41.5	35.6
Female	29.6	33.1	41.3	27.8	30.6	46.2	23.2	25.2	19.3	27.0	43.5	32.0

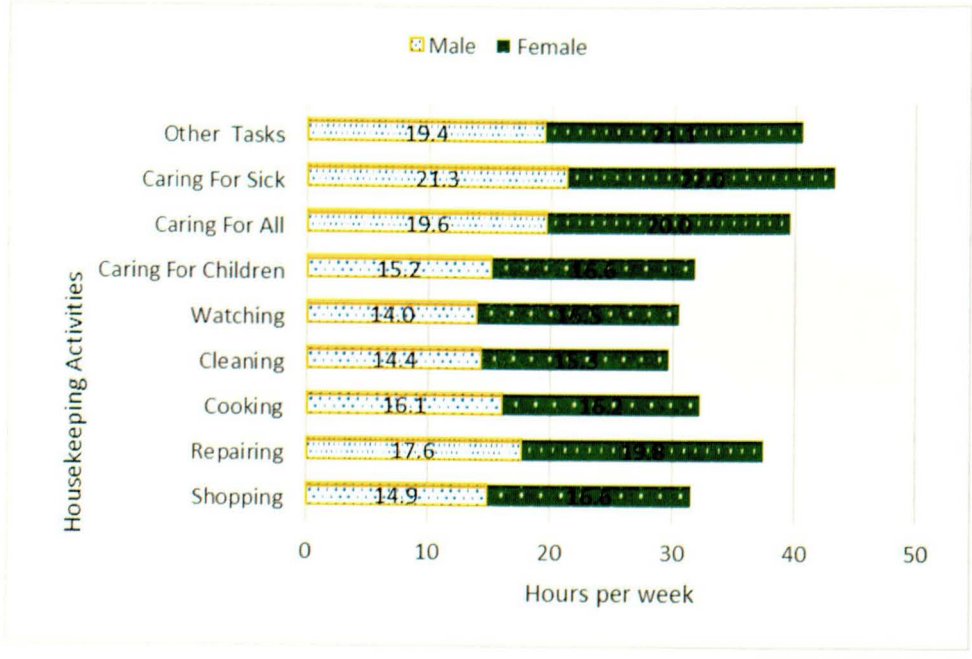
(Source: CSA, NCLFS, 2015)

Non-economic activities

All activities, which fall outside the 'production boundary' established by the UN System of National Accounts, are considered to be 'non-economic activities'. These include children who perform unpaid household services, that is, the production of domestic and personal services by a household member for consumption within their own household, commonly called 'household chores'.

Figure 3-19 illustrates the sex disaggregated statistics for children who spent their time (in hours) in performing housekeeping activities per week at the regional level. Accordingly, across all the given housekeeping activities, female children are appeared to be spent relatively longer hours than their male counterparts. Specifically, female children are observed to be more engaged in caring for sick (22%) and all other members (20%) than performing activities like cleaning (15.3%) and cooking (16.2%).

Figure 3-19: Distribution of children by number of hours spent in housekeeping activities per week by sex, Country level



(Source: CSA, NCLFS, 2015)

Table 3-17 highlights the gender-disaggregated statistics for children by number of hours spent in performing housekeeping activities per week, across the regions. As a result, while female children are observed to be spending more hours per week in performing the given housekeeping activities across all the regions and two city administrations, male children from Tigray (18.8%) and Afar (19.4%) regions spent more hours per week for repairing activity. Similarly, male children spent more hours (per week) for cooking in Tigray (18.1%), Afar (21%), Oromia (17.4%), Somali (19.7%) and Benishangul-Gumuz (14.5%) regions.

Table 3-17: Percentage distribution of children by number of hours spent in housekeeping activities per week by sex and region

Region	Sex	Household chores or Housekeeping								
		Shopping	Repairing	Cooking	Cleaning	Watching	Caring For Children	Caring For All	Caring For Sick	Other Tasks
Country Total	Male	14.9	17.6	16.1	14.4	14.0	15.2	19.6	21.3	19.4
	Female	16.6	19.8	16.2	15.3	16.5	16.6	20.0	22.0	21.1
Tigray	Male	12.7	18.8	18.1	15.0	14.8	14.3	17.0	16.6	20.1
	Female	17.2	17.8	17.7	16.4	17.8	17.7	17.5	18.9	22.2
Afar	Male	15.0	19.4	21.0	17.1	18.7	19.8	27.3	24.5	27.7
	Female	20.9	18.5	20.5	19.1	20.4	21.6	24.3	24.4	26.6
Amhara	Male	13.1	13.8	15.2	13.3	12.4	13.4	16.2	17.8	18.9
	Female	16.8	22.0	16.0	14.9	16.2	16.2	16.8	21.6	21.0
Oromia	Male	16.5	19.3	17.4	15.6	14.4	16.9	23.4	27.8	23.8
	Female	17.8	20.9	16.6	16.0	17.1	17.2	22.1	25.1	25.8
Somali	Male	11.4	12.5	19.7	15.9	17.6	14.0	19.1	15.1	20.6
	Female	14.5	19.2	16.9	14.5	17.5	17.6	22.6	22.9	28.0
Benishangul-Gumuz	Male	11.8	13.8	14.5	13.3	13.0	13.6	16.6	17.5	13.6
	Female	13.1	15.3	14.2	14.1	14.2	13.9	16.4	16.2	13.7
SNNP	Male	14.0	16.0	14.4	13.3	14.3	13.7	16.0	16.7	13.1
	Female	15.1	17.4	15.0	14.1	15.3	15.2	19.4	20.2	14.7
Gambella	Male	7.8	8.1	8.3	9.0	8.2	8.6	7.4	8.9	7.0
	Female	8.5	11.0	9.8	9.4	9.9	9.1	9.1	6.0	7.7
Harari	Male	7.6	8.6	10.6	9.1	10.1	12.2	13.6	9.7	15.5
	Female	10.5	13.2	12.9	11.4	12.7	13.4	14.7	17.1	15.4
Addis Ababa	Male	7.0	7.8	9.1	7.8	8.6	9.7	9.2	9.8	9.2
	Female	13.2	20.3	16.0	14.5	16.1	17.5	18.2	20.7	18.0
Dire Dawa	Male	7.6	11.1	12.5	9.9	10.7	16.1	11.0	12.8	5.4
	Female	13.9	16.9	17.1	14.9	17.2	18.7	24.5	19.1	15.6

(Source: CSA, NCLFS)

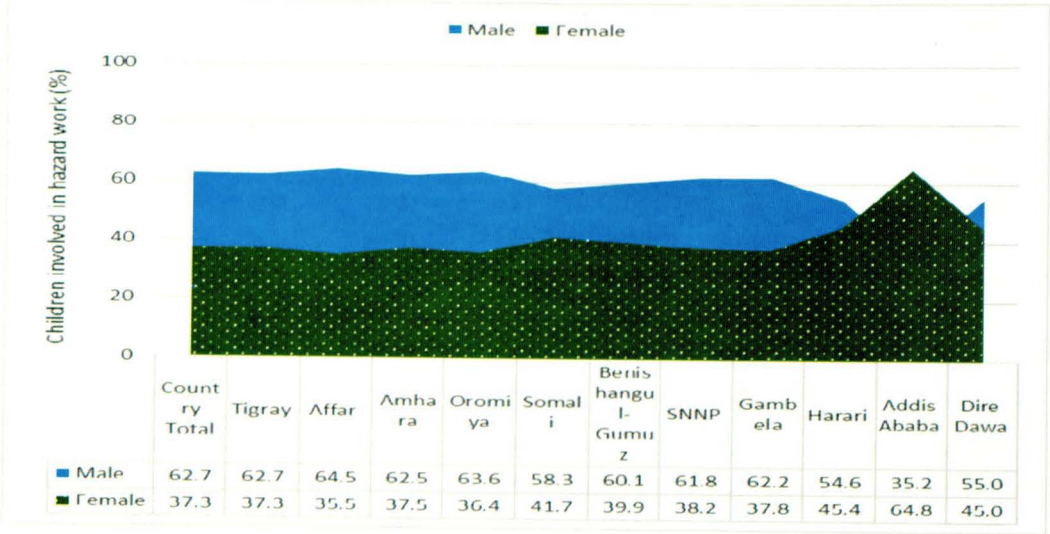
Hazardous work

Hazardous work by children is statistically defined in terms of the engagement of children in activities of a hazardous nature (designated hazardous industries and occupations by the national legislation) or as work under hazardous conditions, for example, long hours of work in tasks and duties, which by themselves may or may not be of a hazardous nature for children.

Figure 3-20 describes the statistics for children involved in hazardous work by sex and region. Accordingly, except Addis Ababa City Administration (64.8%), in all other regions female children are observed less performing the work with hazard than their male counterparts. In other words, more female children are found engaged with hazardous work than male, and their

representation remained over 40% in performing such tasks in the regions like Dire Dawa Administration (45%), Harari (45.4%) and Somali (41.7%). This reveals that while, in general, more male children are involved in performing works with hazard in the country, there remain some regions where high female participation is well witnessed.

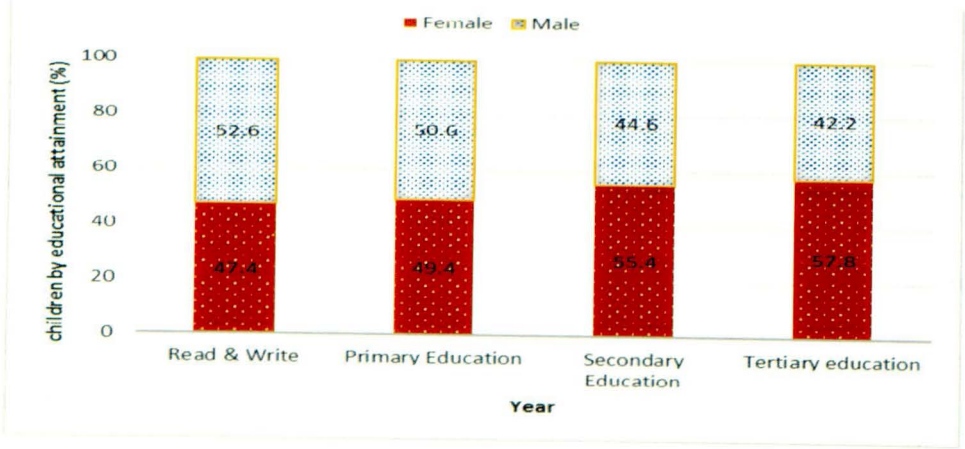
Figure 3-20: Percent of children involved in Hazard Work by sex and region



	Country Total	Tigray	Affar	Amhara	Oromiya	Somali	Benishangul-Gumuz	SNNP	Gambela	Harari	Addis Ababa	Dire Dawa
Male	62.7	62.7	64.5	62.5	63.6	58.3	60.1	61.8	62.2	54.6	35.2	55.0
Female	37.3	37.3	35.5	37.5	36.4	41.7	39.9	38.2	37.8	45.4	64.8	45.0

(Source: CSA, NCLFS, 2015)

Figure 3-21: Percentage of children age 7-18 by sex and educational attainment, Country Total



(Source: CSA, NCLFS, 2015)

With respect to the educational attainment of the children age 7-18, Figure 3-21 shows the statistics by sex at the country level. While boys' representation is observed well dominating girls at lower educational levels (primary), girls are leading boys in secondary (55.4%) and tertiary (57.8%) educational domains. In other words, girls remained more successful than boys in attaining secondary and higher level education.

Table 3-18: Percentage of children age 7-18 by sex, educational attainment and Region

Region	Read & Write		Primary Education		Secondary Education		Tertiary education	
	Male	Female	Male	Female	Male	Female	Male	Female
Country Total	52.6	47.4	50.6	49.4	44.6	55.4	42.2	57.8
Tigray	53.0	47.0	48.9	51.1	48.7	51.3	66.4	33.6
Afar	55.0	45.0	57.0	43.0	63.0	37.0	16.8	83.2
Amhara	52.3	47.7	46.6	53.4	43.6	56.4	57.2	42.8
Oromia	52.7	47.3	52.7	47.3	39.1	60.9	27.4	72.6
Somali	59.1	40.9	59.7	40.3	59.5	40.5	66.7	33.3
Benishangul-Gumuz	52.4	47.6	53.1	46.9	47.1	52.9	50.0	50.0
SNNP	52.3	47.7	51.3	48.7	50.5	49.5	40.6	59.4
Gambela	49.2	50.8	54.3	45.7	67.0	33.0	0.0	100.0
Harari	51.5	48.5	52.6	47.4	45.8	54.2	44.7	55.3
Addis Ababa	51.7	48.3	45.5	54.5	46.5	53.5	42.0	58.0
Dire Dawa	53.2	46.8	51.5	48.5	41.7	58.3	56.7	43.3

(Source: CSA, NCLFS, 2015)

Pertaining to the regions, Table 3-18 depicts the sex-disaggregated statistics of children age 7-18 by their educational attainment. More boys are found having reading and writing skills than girls across all the region and two city administration, except in Gambela where girls took lead (50.8%). In addition, boys' representation in attaining primary education is higher than those of girls in all the regions except Tigray and Amhara, and in Addis Ababa city administration. On contrary, except in Afar (63%), Somali (59.5%) and Gambela (67%) regions where boys dominate girls at secondary education level, almost in all other regions and two city administrations girls perform better than boys. Similar pattern for the domination of girls over boys in higher education has been observed in the regions like Gambela (100%), Afar (83.2%), Oromia (72.6%), SNNP (59.4%), Harari (55.3%) and Addis Ababa city administration (58%).

3.3. Time Use

In general, while paid jobs are counted as part of economy, women contribution in unpaid household works is largely ignored and caused for gender inequality, across the globe. However, now it is widely accepted that invisible household work for which women spend long hours and provide most of the labor are significant.

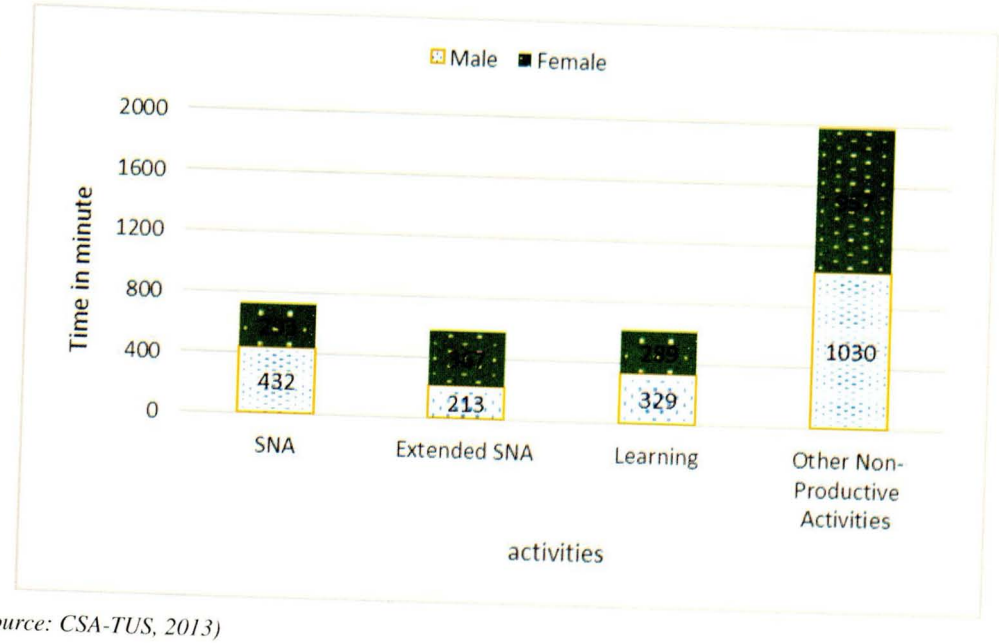
Time Use Surveys (TUS) measure the amount of time people spend in performing various activities like paid and unpaid works, domestic, childcare, volunteering etc, whereby the time

spent on an activity is measured in minutes or hours within a 24-hour period. In other words, TUS being a useful statistical tool collects detailed information about such hidden/household activities and/or unpaid works that are omitted in the conventional economic statistics. Accordingly, an attempt has been made to mine the data from CSA's TUS of 2013, to understand the pattern of women and men (aged 18 and above) use of time in performing different activities of SNA and Extended SNA and non-productive nature.

Description of Activities Included under Broad Time Use Categories	
SNA Activities	**Extended SNA Activities**
(1) Work for Establishment / Formal Sectors	(1) Domestic Services
(2) Primary Production: Crops, Livestock, Non-Farm (Mining/Quarry), Collection of Firewood /Fuel, Collection of Water	(2) Care of Children (3) Care of Adults (4) Community Services
(3) Non-Primary Production	Learning Activities
(4) Construction	Other Non-Productive/Leisure Activities
(5) Income Generation for Household Food-related, Non-professional, Professional Activities	(1) Personal Care (including sleeping) (2) Socialization (social, game, sport and entertainment) (3) Mass media

Figure 3-22 reveals higher participation of male than female in SNA (System of National Account), learning and other non-productive activities (like personal care/maintenance, social life & leisure and others including traveling). However, female (367 minutes) are found spending much of their time on Extended SNA activities, as compared to male (213 minutes).

Figure 3-22: Distribution of average time spent (minute per day) for age 18 and above in various major activities by sex, Country Total-year 2013



(Source: CSA-TUS, 2013)

With respect to the regional distribution of average time spent by female and male in various activities, Table 3-19 describes the statistics from CSA's TUS of 2013. Accordingly, while males are found more spending their time in performing SNA and learning for two city administrations and regions except Oromia and Harari, women spent much of their average daily time in extended SNA, across all the regions. Like the national level, male also spent more minutes per day on other non-productive activities like personal care & maintenance, social life & leisure and others including traveling.

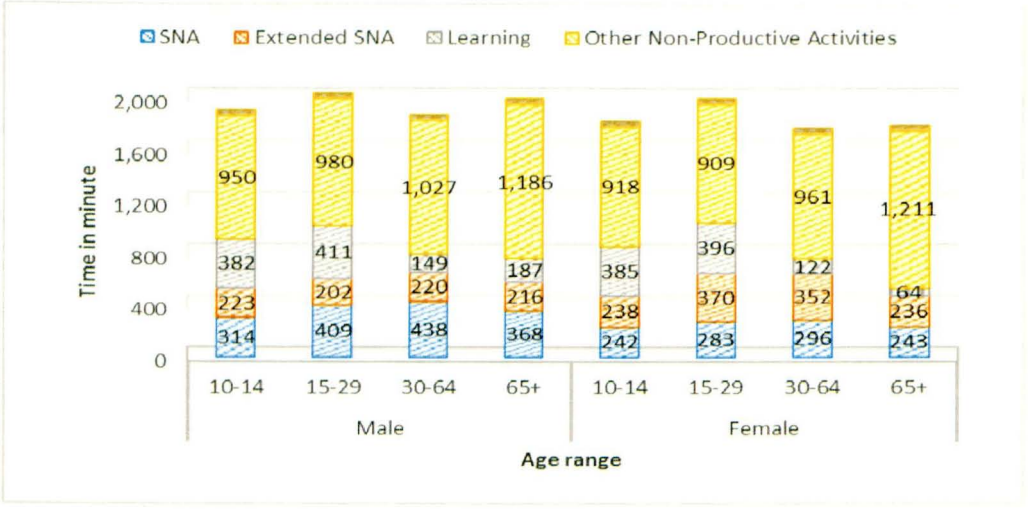
Table 3-19: Percentage distribution of average time spent (minute in a 24-hour average day) in various major activities by sex and region and Years, 2013

Region	Sex	Major Activities			
		SNA	Extended SNA	Learning	Other Non-Productive Activities
Cou ntry Total	Female	293	367	289	957
	Male	432	213	329	1030
Tigray	Female	287	359	282	1002
	Male	406	214	305	1074
Afar	Female	259	412	114	1036
	Male	435	275	246	1052
Amhara	Female	258	418	336	957
	Male	393	282	439	997
Oromia	Female	291	370	334	919
	Male	426	220	288	1006
Somali	Female	283	399	214	914
	Male	426	220	288	1006
Benishangul-Gumuz	Female	292	290	232	962
	Male	414	200	263	1046
S.N.N.P	Female	267	387	291	912
	Male	407	197	314	1027
Gambella	Female	299	267	341	994
	Male	423	147	323	1076
Harari	Female	366	314	326	978
	Male	494	121	319	1025
Addis Ababa	Female	375	326	260	1003
	Male	537	129	304	1008
Dire Dawa	Female	407	321	314	975
	Male	479	142	356	1067

(Source: CSA, TUS, 2013)

Figure 3-23 illustrates the country level sex-disaggregated statistics for average time spent in various major activities per day by age, for the year 2013. Accordingly, across all the age brackets, majority of male and female are founding to spend their time in performing non-productive activities. Moreover, both female and male in the age brackets of 10-14 years and 15-29 years are spent more their daily time in learning as compared to some SNA and Extended SNA activities. Once again male, compared to female, across all the age brackets (10-14, 15-29, 30-64 and 65+ years) are spend more of their time in SNA activities.

Figure 3-23: Distribution of average time spent (minute in a 24-hour average day) in various major activities by sex and Age, Country Total-year 2013



(Source: CSA-TUS, 2013)

Table 3-20 depicts the regional sex-disaggregated statistics for average time spent in various major activities per day by age, for the year 2013. Accordingly, irrespective of their age and regions, both sexes are spent much of their time in performing non-productive activities related to personal care & maintenance, social life & leisure and traveling. Mostly, young people, both female and male in the age bracket of 10-14 and 15-29 years, are spent more their time in learning. Therefore, hardly any regional differences appeared in spending time by the female and male in performing SNA, Extended SNA, learning and other non-productive activities, across their age.

Table 3-20: Distribution of average time spent (minute in a 24-hour average day) by sex, Age and region -year 2013

Region	Major Activities	Female				Male			
		10-14	15-29	30-64	65+	10-14	15-29	30-64	65+
Country Total	SNA	242	283	296	243	314	409	438	368
	Extended SNA	238	370	352	236	223	202	220	216
	Learning	385	396	122	64	382	411	149	187
	Other Non-Productive Activities	918	909	961	1211	950	980	1027	1186
Tigray	SNA	256	306	274	235	337	394	416	338
	Extended SNA	230	358	353	233	199	196	219	205
	Learning	412	366	138	90	376	395	82	60
	Other Non-Productive Activities	895	909	1,016	1,238	948	979	1,076	1,220
Afar	SNA	258	255	256	255	370	415	438	426
	Extended SNA	305	426	392	243	309	291	280	270
	Learning	373	278	39	.	360	347	107	115
	Other Non-Productive Activities	1,002	1,001	1,053	1,294	986	1,013	1,053	1,211
Amhara	SNA	236	254	255	247	354	407	381	362
	Extended SNA	223	414	412	220	270	270	292	267
	Learning	409	448	129	30	398	466	173	540
	Other Non-Productive Activities	868	887	953	1,229	844	902	1,003	1,160
Oromia	SNA	225	285	293	229	286	410	430	369
	Extended SNA	255	374	353	243	252	202	231	208
	Learning	373	413	130	33	383	390	169	130
	Other Non-Productive Activities	879	865	928	1,163	899	958	1,004	1,132
Somali	SNA	349	264	294	368	359	399	441	341
	Extended SNA	257	423	374	246	220	176	202	234
	Learning	330	329	98	.	381	405	153	540
	Other Non-Productive Activities	954	902	908	1,165	965	1,016	1,074	1,225
Benishangul-Gumuz	SNA	225	286	291	254	249	381	418	401
	Extended SNA	186	293	271	179	183	198	198	260
	Learning	359	359	300	.	374	387	150	393
	Other Non-Productive Activities	974	926	978	1,131	1,033	1,012	1,048	1,117
SNNPR	SNA	247	257	273	220	307	382	415	356
	Extended SNA	243	378	375	276	184	184	200	188
	Learning	296	347	146	60	326	353	192	35
	Other Non-Productive Activities	944	891	912	1,174	1,002	1,007	1,018	1,180
Gambela	SNA	200	265	315	304	277	387	429	450
	Extended SNA	204	305	231	182	109	147	150	87
	Learning	296	281	45	.	298	374	187	.
	Other Non-Productive Activities	1,077	963	1,010	1,262	1,167	1,099	1,067	1,198
Harari	SNA	260	330	374	335	317	449	512	336
	Extended SNA	269	319	298	224	168	122	118	181
	Learning	330	353	317	108	367	379	170	90
	Other Non-Productive Activities	986	964	967	1,250	1,028	1,016	1,012	1,276
Addis Ababa	SNA	91	356	377	197	133	479	562	431
	Extended SNA	187	331	317	225	90	116	135	140
	Learning	522	432	91	45	508	452	107	123
	Other Non-Productive Activities	906	934	1,008	1,275	960	988	984	1,267
Dire Dawa	SNA	286	375	416	318	360	458	478	433
	Extended SNA	221	331	292	280	145	133	144	170
	Learning	380	425	145	.	378	446	155	.
	Other Non-Productive Activities	934	938	968	1,200	1,034	1,025	1,059	1,252

(Source: CSA, TUS, 2013)

Figure 3-24 demonstrates the country level sex-disaggregated statistics for distribution of extended-SNA between domestic, care and community services by sex and age for the year 2013. Accordingly, across all the age brackets, while majority of the female are found engaged with domestic services (except aged 10-14), male counterparts (except in age 10-14 years) are

more engaged with community services. Additionally, more female than male, across their age, are found engaging themselves with care services.

Figure 3-24: Percentage distribution of Extended-SNA between domestic services, care services and community services by sex and age, Country Total- year 2013



(Source: CSA-TUS, 2013)

Similarly, Table 3-21 presents the regional statistics for extended-SNA between domestic, care and community services by sex and age for the year 2013. Accordingly, except in the age bracket 10-14 years, while more male is engaged with community services across all the regions, female appeared to be observed with domestic services in all the given age brackets. Moreover, there is no much difference in the patterns of engagement of female and male with unpaid domestic services are observed across the regions.

Table 3-21: Percentage distribution of Extended-SNA between domestic services, care services and community services by sex, age and region- year 2013

Region	Services	Male				Female			
		10-14	15-29	30-64	65+	10-14	15-29	30-64	65+
Country Total	Domestic services	216	175	178	188	202	263	276	215
	Care services	101	98	95	117	152	211	171	137
	Community services	178	227	244	208	133	154	165	106
Tigray	Domestic services	191	262	276	216	194	174	180	173
	Care services	149	197	172	93	80	118	105	129
	Community services	171	156	184	156	168	209	221	237
Afar	Domestic services	286	269	263	210	335	318	319	300
	Care services	107	285	255	216	89	95	105	73
	Community services	40	81	77	43	235	109	89	306
Amhara	Domestic services	199	280	320	200	264	221	210	235
	Care services	145	247	195	131	123	113	99	81
	Community services	126	202	202	136	155	260	279	215
Oromia	Domestic services	206	275	279	222	241	174	182	177
	Care services	172	200	168	144	94	82	86	120
	Community services	188	127	175	90	187	243	262	220
Somali	Domestic services	228	279	278	196	218	172	187	214
	Care services	148	238	190	209	149	121	142	60
	Community services	70	78	84	17	30	133	178	630
Benishangul-Gumuz	Domestic services	148	186	204	179	176	180	164	213
	Care services	159	199	145	72	112	74	101	174
	Community services	49	162	208	.	.	208	255	220
SNNPR	Domestic services	205	287	307	261	171	150	163	176
	Care services	149	174	146	137	91	94	85	88
	Community services	119	160	166	146	212	227	220	186
Gambela	Domestic services	165	212	174	194	90	124	121	107
	Care services	141	167	129	105	97	145	104	60
	Community services	35	136	79	.	164	165	225	85
Harari	Domestic services	212	213	233	174	149	91	87	114
	Care services	167	220	178	203	145	169	90	317
	Community services	114	72	92	58	127	151	160	60
Addis Ababa	Domestic services	169	269	271	212	81	105	119	113
	Care services	124	188	140	81	115	81	91	120
	Community services	33	107	106	88	33	111	128	122
Dire Dawa	Domestic services	194	229	222	227	115	111	101	130
	Care services	143	214	170	197	83	79	84	40
	Community services	195	155	179	201	255	218	288	232

(Source: CSA, TUS, 2013)

3.4. Manufacturing Industries

In overall economic development, a critically important role is played by micro, small and medium enterprises in the developing world. **manufacturing** is often thought of as the heart and soul of a country's economy and is critical in employing a huge part of the labor force and producing materials of strategic importance, and labor, capital , raw materials, emerging markets, and globalization are matters of concern to manufacturing industries in particular and governments in general, statistics collected on manufacturing industries are, therefore, indispensable for policy making, planning, business running, researches, and other purposes.

Manufacturing is the production of goods for use or sale using machines, tools and labor. It refers to a series of human activities, from handicraft to high tech, establishments engaged in the mechanical, physical, or chemical transformation of materials, substances, or components into new products

In general, the manufacturing establishments, be it small, medium or large, are often described in the form of plants, factories, or mills and typically include all intermediate processes required for the production and/or integration of a product's components. To update sectoral planning, policy making and evaluation of the performance and structure of the manufacturing industries (small, medium and large), the CSA has been providing statistical information about the country's manufacturing and electricity industries since 1976.

The CSA LMSMIS (Large and Medium Scale Manufacturing Industries Survey) collects baseline quantitative information since 1996, pertaining to initial capital of establishments, ownership, persons engaged, employee benefitted and job crated by major industrial group by industrial groups/type etc., from the country's medium and large scale manufacturing enterprises. In addition, the SSMIS targets such issues in small scale industries of the country. As a result, efforts are made to analyze relevant sex-disaggregated data from Ethiopia Enterprises to understand the pattern of ownership, participation and received benefits by women and men in the small-scale manufacturing industries, trade establishments and large and medium scale manufacturing industries. To accomplish this manufacturing establishments are divided into three major groups. These are: -

a) Large and Medium Scale Manufacturing Industries, engaging ten or more persons and using power -driven machinery.

b) Small Scale Manufacturing Industries engaging less than ten persons and use power -driven machinery.

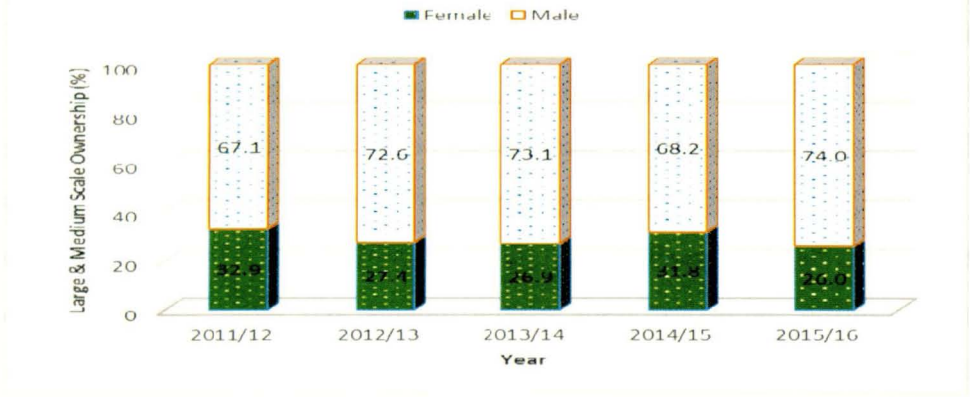
c) Cottage/Handicraft Manufacturing Industries performing their activities by hand (i.e., using non -power driven machinery). However, for a time now the data incorporated only Large, Medium and Small Scale Manufacturing Establishments, because of the updated data availability.

3.4.1. Large and Medium Scale Industries

Manufacturing is also defined here according to International Standard Industrial Classification (ISIC Revision 3.1) as "the physical or chemical transformation of materials or components into new products''. Therefore, Large and Medium Scale Manufacturing Industries means engaging ten or more persons and using power -driven machinery.

With respect to Large and Medium scale manufacturing industries, Figure 3-25 highlights the trend in female and male ownerships, over the last five years (i.e., 2011/12 to 2015/16). Accordingly, male owners are more than female owners, in terms of ownership of large and medium scale manufacturing industries of the country across all survey years. Moreover, female ownership in the large and medium scale manufacturing industries decreased from 32.9% in 2011/12 to 26% in 2015/16. However, some increase in female ownership is being observed from 2013/14 (26.9%) to 2014/15 (31.8%).

Figure 3-25: Distribution of ownership of large and medium scale manufacturing industries by sex and years, Country Level



(Source: CSA, LMSMIS: 2011/12, 2012/13, 2013/14, 2014/15 and 2015/16)

Similarly, Table 3-22 highlights the regional statistics for the ownership of large and medium scale manufacturing industries by sex, between 2011/12 and 2015/16. Accordingly, female

ownership in large and medium scale manufacturing industries significantly increased between 2011/12 and 2015/16 in the regions like Benishangul-Gumuz (13.6% to 77%), SNNP (19.9% to 26.9%), Harari (11.8% to 14.8%) and Dire Dawa city administration (29.3% to 30.6%). However, other regions reported some decrease in the female ownership in large and medium scale manufacturing industries for the same period/duration.

Table 3-22: Distribution of ownership of Large and Medium Scale Manufacturing Industries by Sex, Region and Years

	2011/12		2012/13		2013/14		2014/15		2015/16	
Region	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Country Total	6505	3189	7659	2896	7655	2822	9794	4557	9473	3320
Tigray	395	88	481	79	452	126	729	675	897	511
Afar	12	2	26	4	23	3	11	1	6	1
Amhara	1251	359	1244	353	2098	580	1934	602	2392	346
Oromia	1469	888	1826	968	1990	983	2376	1141	1741	672
Somali	30	9	36	4	56	5	48	2	20	1
Benishangul-Gumuz	19	3	29	6	31	9	270	66	113	379
SNNP	678	168	809	148	925	191	1216	661	762	281
Gambela	1	-	-	-	-	-	-	-	-	-
Harari	743	99	691	101	52	24	57	31	208	36
Addis Ababa	1571	1434	1942	919	1643	750	2740	1206	2953	925
Dire Dawa	336	139	575	314	385	151	413	172	381	168

(Source: CSA, LMSMIS: 2011/12, 2012/13, 2013/14, 2014/15 and 2015/16)

Table 3-23 exhibit the initial capital (in thousand Birr) invested by Ethiopians in private large and medium scale manufacturing industries by owners' sex for five years (2011/12 to 2015/16). Accordingly, more male investors than female investors are found across all the regions and reporting years. Between 2013/14 and 2015/16, a gradual increase in the population of male private investors in large and medium scale industries is observed in Amhara, Oromia, Somali and Harari regions. A gradual decrease has also been observed in female investors in the Tigray, Amhara, SNNP, and Harari regions, during same time period. Largest male investors are found in Oromia region followed by Addis Ababa in 2011/12. Similarly, in 2015/16 the maximum male investors in the private large and medium scale manufacturing industries are also found in Oromia region followed by Addis Ababa.

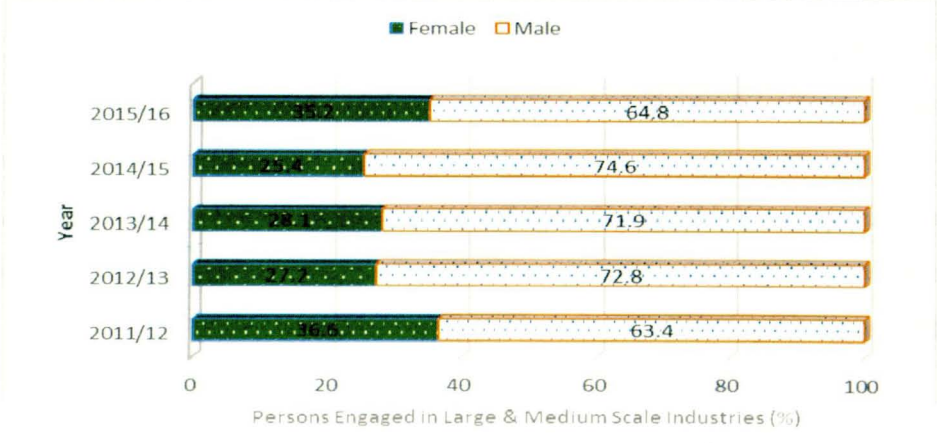
Table 3-23: Private Ethiopian initial capital (in thousand birr) in large & medium scale manufacturing industries by sex of owners and years

Region	2011/12		2012/13		2013/14		2014/15		2015/16	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Country Total	15,821,253	2,203,478	36,145,309	2,423,734	15,021,859	2,770,705	37,211,947	4,059,113	84,180,125	3,440,784
Tigray	697,102	36,982	2,636,822	186,570	865,346	107,840	2,400,051	249,772	2,256,893	304,152
Afar	103,835	-	188,714	4	61,129	4	23,685	-	1,677	-
Amhara	385,544	64,140	20,390,628	23,210	1,206,997	70,283	1,825,224	75,133	2,766,864	130,341
Oromia	7,712,895	567,499	6,482,210	1,011,682	5,877,813	1,037,659	13,777,359	2,288,915	66,155,221	1,575,307
Somali	33,393	225	42,067	237	32,863	210	73,325	17	77,425	2,500
Benishangul-Gumuz	2,892	79	2,762	43	1,014	151	696	55	801	261
SNNP	86,441	7,367	362,825	1,246	1,139,999	56,103	765,045	58,173	1,185,409	64,362
Gambela	1,373	-	1,373	-	-	-	-	-	-	-
Harari	17,434	1,934	2,985	580	10,333	259	27,905	269	77,185	2,667
Addis Ababa	6,138,120	1,520,570	5,894,485	1,182,321	4,934,450	1,405,676	17,673,885	1,104,834	10,981,307	1,357,021
Dire Dawa	642,224	4,682	140,438	17,841	891,915	92,520	644,772	281,945	677,343	4,173

(Source: CSA, LMSMIS: 2011/12, 2012/13, 2013/14, 2014/15 and 2015/16)

Figure 3-26 depicts the trend in female and male engagement in large and medium scale manufacturing industries over the last five years (i.e., 2011/12 to 2015/16). Accordingly, male engagement is more than female in large and medium scale manufacturing industries of the country across all survey year. Moreover, female engagement in the large and medium scale manufacturing industries decreased from 36.6% in 2011/12 to 35.2% in 2015/16. However, some increase in female engagement is observed between 2012/13 (27.2%) and 2013/14 (28.1%), and 2014/15 (25.4%) and 2015/16 (35.2%).

Figure 3-26: Percentages of persons engaged in large and medium scale industries by sex and years, County Total



(Source: CSA, LMSMIS: 2011/12, 2012/13, 2013/14, 2014/15 and 2015/16)

Table 3-24 exhibits the regional statistics for the engagement of female and male in the large and medium scale manufacturing industries in the last five years (2011/12 to 2015/16). Accordingly, female engagement in large and medium scale manufacturing industries increased between 2011/12 and 2015/16 in Afar (8.1% to 8.8%), SNNP (20.4% to 23.5%), Harari (23.4% to 34.9%) and Addis Ababa city administration (39.4% to 45.6%). However, other regions reported some decrease in the female engagement in large and medium scale manufacturing industries, and data from Gambela region are found missing from 2012/13 to 2015/16.

Table 3-24: Number of persons engaged in large and medium scale industries by sex, region and years

	2011/12		2012/13		2013/14		2014/15		2015/16	
Region	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Country Total	126,191	72,734	227,625	85,099	218,162	85,172	247,367	84,264	177,997	96,676
Tigray	13,337	11,072	15,306	11,870	12,648	14,885	73,565	7,895	12,754	8,968
Afar	567	50	1,276	89	289	32	390	34	7,553	727
Amhara	9,649	4,521	10,430	3,897	31,522	4,364	10,907	4,394	21,689	5,573
Oromia	45,895	23,577	78,071	27,337	62,057	31,837	70,765	37,656	60,933	28,585
Somali	316	119	469	96	495	89	428	73	377	46
Benishangul-Gumuz	102	11	167	101	188	105	67	14	243	14
SNNP	6,849	1,755	6,721	1,596	7,989	1,939	7,764	2,171	13,217	4,050
Gambela	20	1	9	–	–	–	–	–	–	–
Harari	1,598	489	1,357	409	1,398	415	617	263	378	203
Addis Ababa	45,626	29,682	110,270	38,210	96,865	28,639	78,450	30,615	55,783	46,806
Dire Dawa	2,232	1,457	3,549	1,494	4,711	2,867	4,414	1,149	5,070	1,704

(Source: CSA, LMSMIS: 2011/12, 2012/13, 2013/14, 2014/15 and 2015/16)

Table 3-25 illustrates the statistics of employees in large and medium scale industries by sex and industrial groups in the given regions, during 2015/16. Accordingly, male is found more employed within the large and medium scale industries, and associated with food products, tanning and dressing of leather, footwear and handbags, chemical and chemical products, non-metallic mineral products, fabricated metal products, machinery and equipment and furniture, across all the given regions. On contrary, female participation is more observed in textiles in Tigray region, Oromia region and Addis Ababa city administration, and wearing apparels and along with luggage, handbags and footwear in Oromia region and Addis Ababa city administration.

Table 3-25: Number of employee in large and medium scale industries by sex and industrial group, 2015/16 G.C

	Tigray		Amhara		Oromia		SNNP		Addis Ababa	
Industrial Group	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
Food Products	1,002	1,674	1,221	3,408	5,819	10,223	1,246	5,242	5,874	9,628
Tobacco Products	-	-	-	-	-	-	-	-	207	357
Textiles	4,687	2,542	1,435	2,021	2,625	1,313	532	2,551	5,520	2,683
Wearing Apparel	-	-	-	-	403	141	734	57	8,870	2,147
Tanning And Dressing Of Leather, Footwear, Luggage And Handbags	392	561	34	84	3,687	2,479	-	-	3,620	2,444
Wood and wood products and Cork	-	-	151	361	346	531	33	244	248	517
Paper, Paper Products And Printing	88	44	70	121	731	986	101	97	3,132	3,585
Chemicals And Chemical Products	526	746	15	25	1,784	3,179	165	275	1,845	3,402
Rubber And Plastic Products	26	61	1,222	835	6,509	4,869	24	32	2,943	3,784
Non-Metallic Mineral Products	1,044	3,242	637	10,066	2,481	6,455	596	1,513	1,524	2,741
Basic Iron And Steel	323	629	-	-	226	993	-	-	665	2,345
Fabricated Metal Products	71	100	195	487	635	1,857	61	184	1,212	4,145
Machinery And Equipment	21	39	25	40	630	1,571	4	8	103	250
Motor Vehicles, Trailers & Semi-Trailers	585	1,940	-	-	1,155	2,227	-	-	530	172
Furniture	124	290	250	359	1,136	3,180	369	1,002	2,787	3,772

(Source: CSA, LMSMIS: 2015/16)

Table 3-26 describes the sex-disaggregated data pertaining to the number of employees in large and medium scale industries by region, for the year 2014/15. Accordingly, male employees are more than female employees in the large and medium scale industries like food products, rubber and plastic products, non-metallic mineral products, fabricated metal products and furniture, across all the given regions. Female employees are more than male in textiles across all the regions, except Amhara and SNNP, and wearing apparels in Oromia region, SNNP region and Addis Ababa city administration. However, no participation of either sexes has been noticed in Tobacco products, except in Addis Ababa city administration, where male exceeded female during 2014/15.

Table 3-26: Number of employee in large and medium scale industries by sex and industrial group, 2014/15 G.C

	Tigray		Amhara		Oromia		SNNP		Addis Ababa	
Industrial Group	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
Food Products	1,131	1,616	991	2,690	6,855	15,010	491	1,839	7,760	12,029
Tobacco Products	-	-	-	-	-	-	-	-	277	719
Textiles	4,650	1,945	1,485	1,862	8,638	4,094	169	440	2,969	1,271
Wearing Apparel	-	-	-	-	1,758	499	5	4	2,744	826
Tanning And Dressing Of Leather, Footwear, Luggage And Handbags	76	191	250	260	3,934	3,435	365	494	3,671	3,756
Wood and wood products and Cork	-	-	91	180	411	1,558	35	306	75	430
Paper, Paper Products And Printing	143	66	55	104	1,180	1,440	82	83	2,671	2,711
Chemicals And Chemical Products	17	36	38	30	1,767	3,613	177	465	2,815	2,677
Rubber And Plastic Products	89	297	279	301	6,663	4,708	148	58	2,511	3,325
Non-Metallic Mineral Products	848	2,789	301	801	2,242	7,027	331	989	1,003	1,909
Basic Iron And Steel	194	449	42	190	891	3,951	-	-	436	1,301
Fabricated Metal Products	46	114	60	208	577	1,477	36	204	973	3,568
Machinery And Equipment	13	29	25	24	216	836	3	9	110	354
Motor Vehicles, Trailers & Semi-Trailers	457	1,429	-	-	754	1,758	-	-	22	103
Furniture	80	725	105	305	1,368	2,203	85	492	1,809	3,082

(Source: CSA, LMSMIS: 2014/15)

Table 3-27 presents the sex-disaggregated data pertaining to the number of employees in large and medium scale industries by region, for the year 2013/14. Once again, male employees are larger than female employees in the large and medium scale industries like food products, tanning and dressing of leather, footwear and handbags, chemical and chemical products, non-metallic mineral products, fabricated metal products, machinery and equipment, and furniture across all the given regions. Female employees are more than female in textiles across all the regions, except Amhara and SNNP, and wearing apparel in Tigray region, Oromia region and Addis Ababa city administration. However, no participation of either sexes has been noticed in tobacco products across the regions, except Addis Ababa.

Table 3-27: Number of employee in large and medium scale industries by sex and industrial group, 2013/14 G.C

	Tigray		Amhara		Oromia		SNNP		Addis Ababa	
Industrial Group	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Food Products	829	1,279	1,109	3,046	5,839	13,119	456	1,737	5,852	10,726
Tobacco Products	-	-	-	-	-	-	-	-	127	304
Textiles	11,991	1,974	1,779	2,682	6,380	3,960	406	1,019	2,454	1,259
Wearing Apparel	16	5	-	-	2,345	313	1	1	2,868	810
Tanning And Dressing Of Leather, Footwear, Luggage And Handbags	62	179	59	177	2,547	4,528	19	26	3,655	4,118
Wood and wood products and Cork	-	-	2	33	282	1,012	36	270	152	461
Paper, Paper Products And Printing	82	64	70	95	1,721	1,538	78	85	3,002	3,461
Chemicals And Chemical Products	322	494	24	41	2,081	4,027	84	233	2,877	3,270
Rubber And Plastic Products	28	65	68	114	4,883	3,695	45	96	3,141	4,342
Non-Metallic Mineral Products	910	3,341	658	1,120	1,580	7,583	489	1,116	968	2,746
Basic Iron And Steel	92	317	-	10	177	1,365	-	-	186	925
Fabricated Metal Products	87	223	35	131	747	4,656	47	231	1,292	3,969
Machinery And Equipment	5	32	-	-	402	793	-	-	122	369
Motor Vehicles, Trailers & Semi-Trailers	336	1,159	-	-	794	1,887	-	-	30	176
Furniture	73	368	133	343	411	1,443	131	723	993	2,633

(Source: CSA, LMSMIS: 2013/14)

Table 3-28 exhibits the sex-disaggregated data pertaining to the number of employees in large and medium scale industries by region, for the year 2012/13. Male employees are found to be more than female counterpart in the large and medium scale industries like food products, tanning and dressing of leather, footwear and handbags, chemical and chemical products, non-metallic mineral products, fabricated metal products, machinery and equipment, and furniture across all the given regions, and paper, paper products and printing in all the regions, except Tigray. Female employees are greater than male employees in textiles across all the regions, except SNNP, and wearing apparel in Tigray, Oromia and Addis Ababa regions.

Table 3-28: Number of employee in large and medium scale industries by sex and industrial group, 2012/13 G.C

	Tigray		Amhara		Oromia		SNNP		Addis Ababa	
Industrial Group	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
Food Products	808	1,302	751	1,794	5,399	13,094	378	1,346	7,007	11,774
Tobacco Products	-	-	-	-	-	-	-	-	127	304
Textiles	4,737	2,560	1,573	2,287	5,448	3,753	240	637	4,517	3,860
Wearing Apparel	3,524	1,057	-	-	1,521	458	1	1	865	254
Tanning And Dressing Of Leather, Footwear, Luggage And Handbags	707	679	101	328	2,726	4,966	13	17	3,287	3,965
Wood and wood products and Cork	-	-	104	170	267	1,727	33	248	385	1,318
Paper, Paper Products And Printing	80	41	101	120	891	1,831	42	52	2,624	2,879
Chemicals And Chemical Products	371	470	2	7	2,142	4,104	72	188	2,608	2,944
Rubber And Plastic Products	45	127	45	190	3,213	2,543	-	-	5,671	50,792
Non-Metallic Mineral Products	534	2,463	499	908	1,255	7,357	446	769	884	1,610
Basic Iron And Steel	90	253	0	10	107	710	-	-	300	1,475
Fabricated Metal Products	88	321	38	206	1,060	5,229	28	196	1,156	3,697
Machinery And Equipment	-	-	-	0	65	191	-	-	11	92
Motor Vehicles, Trailers & Semi-Trailers	250	1,212	25	57	687	1,991	-	-	93	341
Furniture	85	434	123	451	541	1,736	156	907	1,273	3,052

(Source: CSA, LMSMIS: 2012/13)

Finally, Table 3-29 describes the sex-disaggregated data pertaining to the number of employees in large and medium scale industries by region, for the year 2011/12. Accordingly, Male employees are found to be more than female counterpart in the large and medium scale industries like food products, tanning and dressing of leather, footwear and handbags, wood and wood products and corks, chemical and chemical products, fabricated metal products, machinery and equipment, motor vehicles, trailers and sub-trailers, and furniture manufacturing across all the given regions. Female employees are more male employees in textiles across all the regions, except SNNP, and wearing apparel in Tigray, Amhara and Oromia regions and Addis Ababa City Administration in 2011/12.

Table 3-29: Number of employee in large and medium scale industries by sex and industrial group, 2011/12 G.C

Industrial Group	Tigray		Amhara		Oromia		SNNP		Addis Ababa	
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
Food Products	594	1,160	624	1,449	3,952	10,902	2,181	7,292	7,562	11,538
Textiles	4,561	2,558	3,721	1,016	6,563	2,297	977	1,342	3,610	2,874
Wearing Apparel	3,688	1,519	454	102	1,395	204	217	237	2,259	1,386
Tanning And Dressing Of Leather, Footwear, Luggage And Handbags	612	770	94	318	1,436	2,214	329	757	3,411	4,105
Wood and wood products and Cork	1	3	103	187	109	456	96	987	471	945
Paper, Paper Products And Printing	157	565	7	6	299	495	149	472	2,864	3,170
Chemicals And Chemical Products	322	414	0	3	1,104	1,785	358	1,102	2,486	2,857
Rubber And Plastic Products	22	50	16	69	2,774	2,011	246	527	2,729	3,769
Non-Metallic Mineral Products	776	3,026	994	1,289	781	3,704	857	3,128	1,333	3,652
Basic Iron And Steel	69	161	-	-	57	514	73	222	362	1,530
Fabricated Metal Products	29	296	26	152	344	2,002	183	471	811	3,439
Machinery And Equipment	-	-	-	-	1	21	1	10	1	5
Motor Vehicles, Trailers & Semi-Trailers	175	897	10	64	10	73	14	46	16	141
Furniture; Manufacturing	48	226	163	745	361	826	279	1,179	1,055	2,181

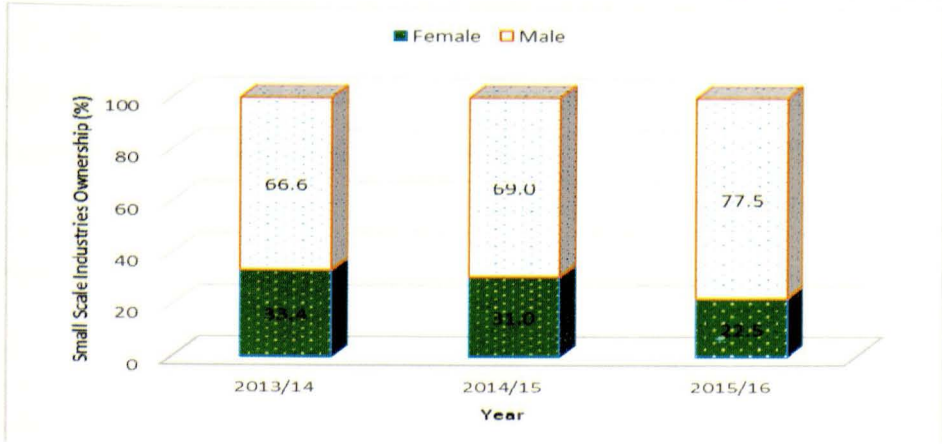
(Source: CSA, LMSMIS: 2011/12)

3.4.2 Small Scale Manufacturing Industry

Small scale manufacturing industries are playing an ever-increasing role in the manufacturing industrial structure of the country. Expansion and development of the sector increases agricultural productivity through providing agricultural inputs and creating demand for agricultural outputs and Small Scale Manufacturing Industries means engaging less than ten persons and using power -driven machinery.

Accordingly, Figure 3-27 reveals that more small scale manufacturing industries in the country are owned by male than female across all the three survey years (2013/14 to 2015/16). Additionally, a decrease in the percentage of female, being owner of small scale manufacturing industry, from 33.4% in 2013/14 to 22.5% in 2015/16 is observed, whereas an increase in the percentages of male owners is observed from 2013/14 to 2015/16.

Figure 3-27: Percentage distribution of ownership of small scale manufacturing industries by sex and years, country level



(Source: CSA, SSMIS: 2013/14. 2014/15 and 2015/16)

With respect to the regional distribution of the ownership of small scale manufacturing industries by sex, Table 3-30 depicts the statistics from 2013/14 to 2015/16. Accordingly, across all the regions, there appeared to be fewer female owners than male, but females as owner of small scale manufacturing industry increased between 2013/14 and 2015/16 in Somali (35.2% to 41.3%) and Gambela (20.3% to 25%). In all other regions and city administrations, male ownership of small scale manufacturing industries grew, in the survey period, from as high as 18.4% in Dire Dawa city administration and 15.5% in Benishangul-Gumuz region.

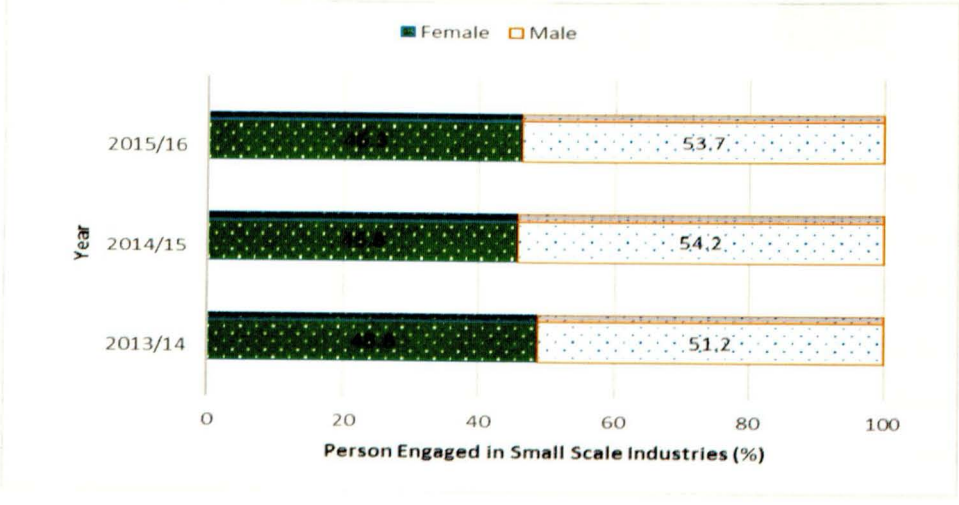
Table 3-30: Percentage distribution of ownership of small scale manufacturing industries by sex, region and years

	2013/14		2014/15		2015/16	
Region	Male	Female	Male	Female	Male	Female
Country Total	157,399	78,942	162,644	72,903	180,354	52,341
Tigray	16,019	3,561	12,666	2,023	15,466	963
Afar	358	83	1,764	925	525	90
Amhara	38,214	26,446	54,269	27,518	48,730	14,864
Oromia	52,487	20,825	52,560	18,638	49,714	17,162
Somali	383	208	456	50	179	126
Benishangul-Gumuz	2,155	938	464	122	386	67
SNNP	18,886	9,653	14,776	14,776	31,195	8,131
Gambela	114	29	250	0	987	329
Harari	153	58	272	101	381	50
Addis Ababa	28,041	16,830	24,753	8,541	31,910	10,389
Dire Dawa	589	311	414	209	881	170

(Source: CSA, SSMIS: 2013/14. 2014/15 and 2015/16)

Figure 3-28 exhibits the country level sex-disaggregated statistics for persons engaged in smal scale manufacturing industries for three years (2013/14 to 2015/16). Accordingly, mal engagement is more than female across the survey year. A growing pattern in male engagemen is observed from 51.2% in 2013/14 to 54.2% in 2014/15, and by 2015/ 16 female engagemen reached to 46.3%, reversing the trend from 2014/15 (45.8%).

Figure 3-28: Percentage distribution of persons engaged in small scale manufacturing industries by sex and years, country level



(Source: CSA, SSMIS: 2013/14, 2014/15 and 2015/16)

Similarly, Table 3-31 presents the statistics for the persons engaged in small scale manufacturing industries by region and sex for three years (2013/14, 2014/15 and 2015/16). Accordingly, female engagement in small scale manufacturing industries increased between 2013/14 and 2015/16 in Tigray (46% to 53.5%), Afar (39.2% to 47.7%) and Harari (43.7% to 49.3%). However, other regions reported the decrease in female engagement in small scale manufacturing industries during 2013/14-2015/16.

Table 3-31: Number of persons engaged in small scale manufacturing industries by sex, region and years

Region	2013/14		2014/15		2015/16	
	Male	Female	Male	Female	Male	Female
Country Total	874,216	832,209	902,819	762,576	1,118,724	966,258
Tigray	116,047	98,734	91,191	78,518	108,109	124,448
Afar	3,376	2,175	3,164	2,691	4,179	3,817
Amhara	248,327	245,308	332,899	283,240	332,825	292,125
Oromia	247,003	247,710	247,990	204,523	277,292	223,525
Somali	3,681	4,287	3,475	2,798	1,455	1,282
Benishangul-Gumuz	3,570	3,829	1,768	1,999	1,044	989
SNNP	88,830	83,176	93,297	80,391	173,579	145,292
Gambela	1,256	1,067	1,436	903	3,929	2,581
Harari	1,377	1,070	2,149	1,609	3,096	3,011
Addis Ababa	153,512	137,560	121,573	102,735	202,282	159,189
Dire Dawa	7,237	7,293	3,877	3,169	10,934	9,999

(Source: CSA, SSMIS: 2013/14. 2014/15 and 2015/16)

With respect to the private initial capital investments by Ethiopians in small scale manufacturing industries by region and sex for 2013/14 and 2014/15, Table 3-32 depicts male owners has more initial capital than female owners both at country level and across the regions and city administrations. Female owners' initial capital shows an increasing trend between 2013/14 and 2015/16 at country level, two city administrations and regions except Somali region and Benshangul Gumuz region. 317171

Table 3-32: Distribution of private Ethiopian initial capital (in thousand birr) in small scale manufacturing industries by sex of owners, region and years

Region	2013/14		2014/15		2015/16	
	Female	Male	Female	Male	Female	Male
Country Total	610,789	3,765,981	766,903	4,186,758	1,327,939	15,479,819
Tigray	32,863	283,670	35,424	258,870	35,618	317,171
Afar	2,449	12,451	95	17,936	6,674	19,687
Amhara	198,375	941,211	284,178	1,686,315	272,673	1,508,652
Oromia	201,804	1,259,557	300,738	1,533,303	334,099	1,800,413
Somali	7,440	23,995	249	28,481	7,065	8,152
Benishangul-Gumuz	5,094	23,105	3,233	16,848	3,857	7,120
SNNP	92,141	324,334	65,222	392,816	150,575	973,172
Gambela	201	1,393	-	5,040	-	12,554
Harari	-	6,062	890	6,595	5,661	35,429
Addis Ababa	68,068	873,003	62,892	214,344	179,596	11,061,935
Dire Dawa	2,354	17,200	13,982	26,210	38,014	29,641

(Source: CSA-SSMIS: 2013/14. 2014/15 and 2015/16)

Table 3-33 displays the sex-disaggregated data pertaining to the number of employees in small scale industries by region, for the year 2015/16. Accordingly, male employees are larger than women employees in the small scale industries like food products, grain mail service, textile, wearing apparel, dressing and dying, fabricated metal products, machinery and equipment, and furniture, across all the given regions. Female employees exceed male employees in textiles in Tigray region, Oromia region and Addis Ababa city administration, their numbers are more in major industrial group category of wearing apparels, dressing and dying industry in Tigray and SNNP regions. However, no participation of either sexes has been noticed in publishing, printing and reproduction of recorded media, and chemicals and chemical products in the Tigray and SNNP regions during 2015/16.

Table 3-33: Number of employee in small scale by sex and selected industrial group, Region, 2015/16 G.C

Industrial Group	Tigray		Amhara		Oromia		SNNP		Addis Ababa	
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
Food Products	5,288	6,528	20219	25268	10532	12324	6740	6909	5499	6246
Grain Mill Services	2,487	2,208	38796	43238	45286	47547	13220	18593	3671	2833
Textiles	402	263	1469	1511	110	56	471	541	3382	2065
Wearing Apparel; Dressing And Dying	27,540	16,992	22745	27415	2897	2897	10270	9508	8552	12377
Luggage, Handbags And Footwear	26	40	295	363	161	107	81	81	993	1140
Wood And Wood Products And Cork	-	-	178	102	764	1376	738	1401	1478	3796
Publishing, Printing And Reproduction Of Recorded Media	-	-	-	-	84	127	-	-	1001	860
Chemicals And Chemical Products	-	-	-	-	578	536	-	-	3750	3497
Other Non-Metallic Mineral Products	1,509	1,509	56	28	4132	5992	1170	1565	3215	4526
Fabricated Metal Products	4,431	5,689	592	1029	11432	13675	3818	4157	8063	13051
Machinery And Equipment	170	198	6575	9080	84	141	56	56	1875	2623
Parts And Accessories For Motor Vehicles	-	-	578	1184	-	-	-	-	-	-
Furniture	5,668	8,996	20022	30513	17851	25338	17822	25662	24196	30089

(Source: CSA, SSMIS: 2015/16)

Table 3-34 presents the sex-disaggregated data pertaining to the number of employees in small scale industries by region, for the year 2014/15. Accordingly, male employees are found to be more than female in the small scale industries like food products, wearing apparels, dressing and dying, fabricated metal products, and furniture across all the given regions. female exceed male counterpart in textiles in Tigray region and Addis Ababa region city administration. However, no participation of either sexes has been noticed in publishing, printing and reproduction of recorded media, and chemicals and chemical products in the Tigray, Amhara and SNNP regions during 2014/15.

Table 3-34: Number of employee in small scale by sex and industrial group, 2014/15 G.C

Industrial Group	Tigray		Amhara		Oromia		SNNP		Addis Ababa	
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
Food Products	5,359	6,978	19390	21586	13390	15110	6464	8509	7016	8936
Grain Mill Services	2,940	3,477	36674	44566	33769	43872	8125	12957	6246	5185
Textiles	349	337	1370	1782	24	24	224	224	3053	2268
Wearing Apparel; Dressing And Dying	10,778	12,983	20621	27773	2293	2393	3838	5620	13718	18129
Luggage, Handbags And Footwear	106	199	1017	832	119	159	330	304	1136	1215
Wood And Wood Products And Cork	-	-	351	422	1008	1161	106	281	340	481
Publishing, Printing And Reproduction Of Recorded Media	-	-	-	-	138	113	-	-	-	-
Chemicals And Chemical Products	26	26	138	125	578	828			100	125
Other Non-Metallic Mineral Products	2,347	2,197	1255	1531	5685	7517	289	326	1518	1619
Fabricated Metal Products	5,568	7,059	8503	12664	9111	14412	1293	1815	4513	6660
Machinery And Equipment	-	-	326	326	214	276	-	-	427	603
Parts And Accessories For Motor Vehicles										
Furniture	2,535	3,778	17670	27033	9237	15701	8221	10215	3439	4844

(Source: CSA, SSMIS: 2014/15)

Similarly, Table 3-35 reveals the statistics of employees in small scale industries by sex and industrial groups in the given regions, during 2013/14. Accordingly, male is found more employed than female in the small scale industries, and associated with food products, textiles, wearing apparels, dressing and dying, fabricated metal products, other non-metallic minerals, and furniture across all the given regions. Contrary to this, female employment is more observed in luggage, handbags and footwear across all the given regions, and in Grain Mill services in Tigray region. However, no participation of either sexes has been noticed in chemical and chemical products in the Oromia and SNNP regions, during 2013/14.

Table 3-35: Number of employee in small scale by sex and industrial group, 2013/14

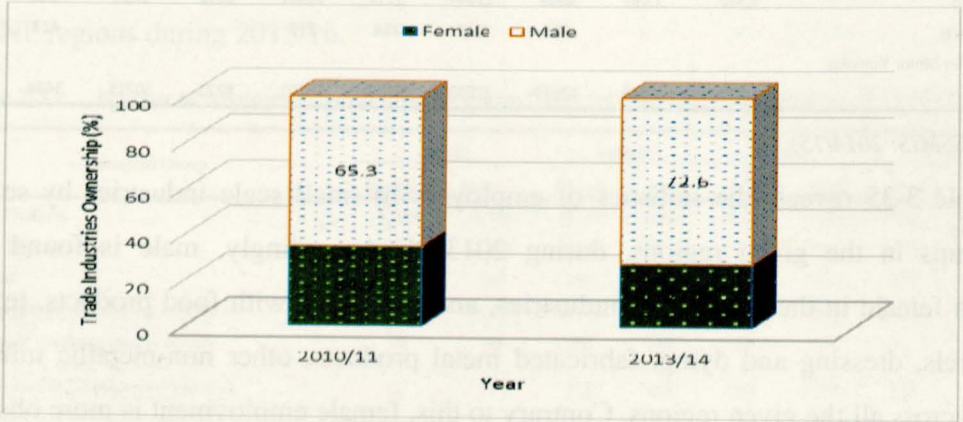
Industrial Group	Tigray		Amhara		Oromia		SNNP		Addis Ababa	
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
Food Products	6,298	6,345	26592	29251	20774	25497	11876	12403	6653	7094
Grain Mill Services	4,199	3,981	28185	32960	38093	44506	8192	10419	5466	5901
Textiles	2,145	3,275	3783	3520	630	763	169	207	3275	5458
Wearing Apparel; Dressing And Dying	12,901	14,133	11602	14943	2926	3520	1807	2625	15837	18134
Luggage, Handbags And Footwear	376	275	1161	721	533	360	447	329	1451	1332
Wood And Wood Products And Cork	363	480	314	519	568	1068	59	69	696	980
Publishing, Printing And Reproduction Of Recorded Media	77	125	20	68	154	115	-	-	20	68
Chemicals And Chemical Products	20	29	20	20	-	-	-	-	38	57
Other Non-Metallic Mineral Products	1,959	2,083	787	845	912	1661	124	154	941	1756
Fabricated Metal Products	6,698	9,168	4503	6536	6622	10821	2024	2698	7410	10308
Machinery And Equipment	58	58	38	57	-	-	20	68	-	-
Parts And Accessories For Motor Vehicles	20	68	-	-	77	57	39	29	39	39
Furniture	5,184	6,163	10320	13891	11165	16666	4608	7670	10272	12595

(Source: CSA, SSMIS: 2013/14)

Distributive Trade

Distributive trade is the exchange of goods and services from the point of production to the poin of consumption to satisfy human wants. It is the supply of material goods to consumers, through retailing and wholesaling or the act or process of buying, selling or exchanging goods and services at either wholesale or retail, within a country or between countries. Thus, in this sector distributive trade corresponds to the wholesale and retail trade; repair of motor vehicles and motor.

Figure 3-29: Percentages of trade establishments ownership by sex and years, County Total



(Source: CSA, DTS: 2010/11 and 2013/14)

Figure 3-29 depicts the statistics for ownership of trade establishments by sex for the year 2010/11 and 2013/14. Accordingly, male owners of trade establishments are more than female owners in the country for both years. Moreover, female share in the ownership of trade establishments decreased from 34.7% in 2010/11 to 27.4% in 2013/14.

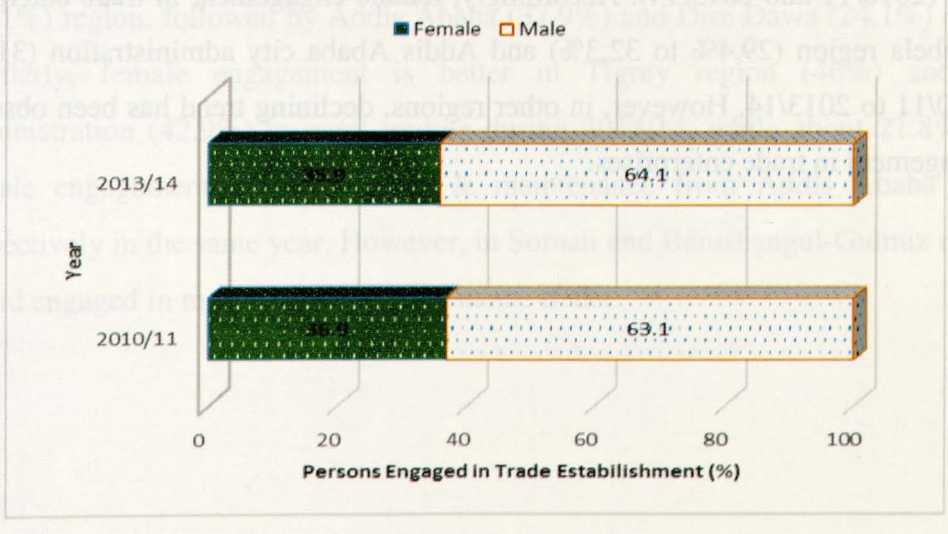
Table 3-36: Number of trade establishments ownership by sex, region and years

Region	2010/11		2013/14	
	Female	Male	Female	Male
Country Total	102,554	193,231	148,348	394,032
Tigray	13,769	16,692	16,472	33,616
Afar	963	1,972	760	2,933
Amhara	20,725	38,931	33,924	94,038
Oromia	24,267	43,826	28,629	113,862
Somali	1,463	2,820	749	2,342
Benishangul-Gumuz	582	2,070	675	3,644
SNNP	8,067	25,629	9,355	41,453
Gambela	411	1,608	179	1,036
Harari	1,877	2,749	948	1,742
Addis Ababa	26,479	52,791	54,158	93,775
Dire Dawa	3,951	4,143	2,499	5,591

(Source: CSA-DTS: 2010/11 and 2013/14)

With respect to the regional distribution of the ownership of trade establishments by sex, Table 3-36 reveals the statistics for the years 2010/11 and 2013/14. Accordingly, across all the regions and two administrations, there appeared to be fewer female owners of trade establishments than male. Female ownership in trade establishments declined across all the regions and Dire Dawa city administration, except in Addis Ababa city administration. Female owners increased from 33.4% in 2010/11 to 36.6% in 2013/14 in Addis Ababa.

Figure 3-30: Percentages of persons engaged in trade establishments by sex and years, County Total



(Source: CSA, DTS: 2010/11 and 2013/14)

Figure 3-29 presents the country level sex-disaggregated statistics for persons engaged in trade establishments for the years 2010/11 and 2013/14. Accordingly, male engagement is more than female engagement in trade establishments of the country across the survey years. While an increase in male engagement in trade enterprises is observed from 63.1% in 2010/11 to 64.1% in 2013/14, female engagement decreased from 36.9% to 35.9% in the same period.

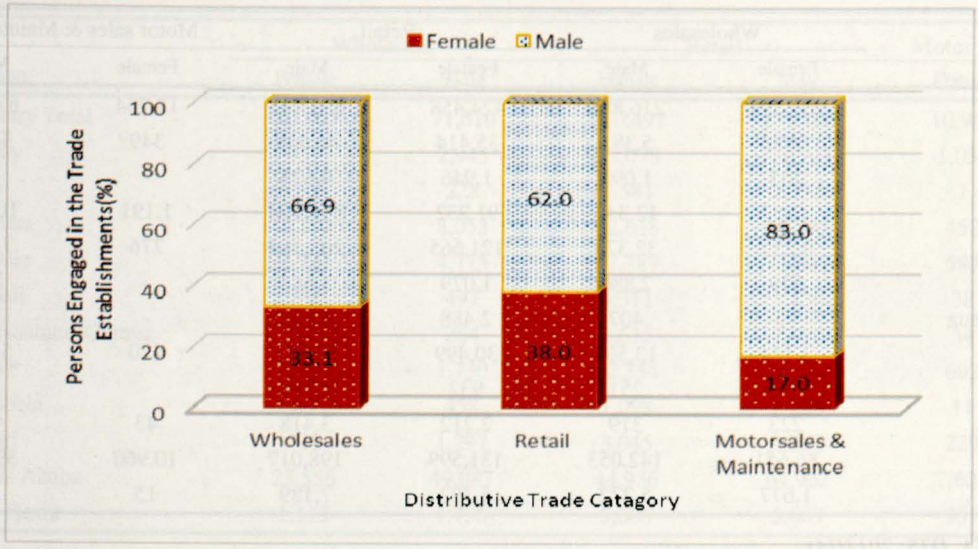
Table 3-37: Number of persons engaged in trade establishments by sex, region and years

	2010/11		2013/14	
Region	Female	Male	Female	Male
Country Total	251,701	430,683	545,510	975,041
Tigray	29,064	36,818	37,346	50,028
Afar	1,604	2,962	2,211	5,720
Amhara	45,300	64,931	96,280	179,134
Oromia	59,104	80,033	131,698	242,244
Somali	3,449	3,958	1,608	6,736
Benishangul-Gumuz	1,690	2,964	2,563	5,365
SNNP	23,244	50,900	34,063	87,670
Gambela	1,172	2,821	969	2,033
Harari	3,845	5,556	2,478	4,152
Addis Ababa	76,095	169,636	229,210	379,411
Dire Dawa	7,134	10,104	7,084	12,548

(Source: CSA, DTS: 2010/11 and 2013/14)

Table 3-37 highlights the regional statistics for the persons engaged in trade establishments by sex for two years (2010/11 and 2013/14). Accordingly, female engagement in trade enterprises increased in Gambela region (29.4% to 32.3%) and Addis Ababa city administration (31% to 37.7%) from 2010/11 to 2013/14. However, in other regions, declining trend has been observed in the female engagement in trade enterprises.

Figure 3-31: Percentage distribution of persons engaged in wholesale, retail sales and motor vehicles sales & maintenance trade by sex and trade type, Country Total, 2013/14 G.C



(Source: CSA, DTS: 2013/14)

Furthermore, Figure 3-31 demonstrates the distribution of persons engaged in different trade types (wholesale, retail and motor vehicles sales & maintenance) by sex for the year 2013/14. As can be seen, male engagement is more than female engagement across all the trade types in the year 2013/14. Moreover, female engagement in retail trade (38%) is more than that in wholesale (33.1%) and motor sales & maintenance (17%).

With respect to regions, more male engagement than female is observed across all the three trade types (Table 3-38). Pertaining to the wholesale trade, female engagement is highest in the Harari (41.1%) region, followed by Addis Ababa (37.9%) and Dire Dawa (24.1%) city administrations. Similarly, female engagement is better in Tigray region (46%) and Dire Dawa city administration (42.9%) in retail trading during 2013/14, while about 21.8% and 10.1% of the female engagement in motor sales & maintenance from Addis Ababa and Tigray region respectively in the same year. However, in Somali and Benishangul-Gumuz regions, no female is found engaged in motor sales & maintenance trade.

Table 3-38: Percentage distribution of persons engaged in wholesale, retail sales and motor vehicles sales & maintenance trade by sex, region, and trade type, 2013/14 G.C

Region	Wholesales		Retail		Motor sales & Maintenance	
	Female	Male	Female	Male	Female	Male
Country Total	107,298	216,886	424,458	691,145	13,754	67,010
Tigray	1,583	5,381	35,414	41,540	349	3,107
Afar	265	1,095	1,946	4,625	-	-
Amhara	3,857	13,342	91,232	154,804	1,191	10,988
Oromia	9,257	32,373	121,665	202,264	776	7,607
Somali	529	2,886	1,079	3,683	-	167
Benishangul-Gumuz	75	407	2,488	4,852	-	106
SNNP	3,144	13,507	30,499	68,971	420	5,192
Gambela	37	251	932	1,782	-	-
Harari	223	319	2,212	3,418	43	415
Addis Ababa	86,651	142,053	131,599	198,017	10,960	39,341
Dire Dawa	1,677	5,272	5,392	7,189	15	87

(Source: CSA, DTS: 2013/14)

Figure 3-32 describes the distribution of persons engaged in wholesale, retail and motor vehicles sales & maintenance trade types by sex for the year 2010/11. Accordingly, once again male engagement is more than female engagement across all the trade types in the year 2010/11. Female engagement remained highest in the retail trade (43.3%), followed by wholesale (29.9%) and motor sales & maintenance (11.5%).

Figure 3-32: Percentage distribution of persons engaged in wholesale, retail sales and motor vehicles sales & maintenance trade by sex and trade type, Country Total, 2010/11 G.C



(Source: CSA, DTS: 2010/11)

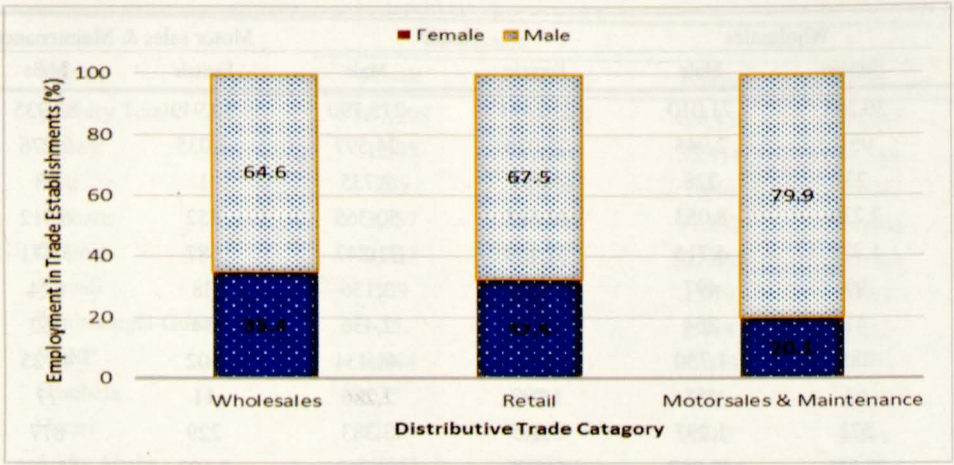
Table 3-39: Percentage distribution of persons engaged in wholesale, retail sales and motor vehicles sales & maintenance trade by sex, region, and trade type, 2010/11 G.C

Region	Wholesales		Retail		Motor sales & Maintenance	
	Female	Male	Female	Male	Female	Male
Country Total	30,263	71,010	210,491	275,790	10,949	83,935
Tigray	951	2,945	27,078	24,597	1,035	9,276
Afar	23	228	1,581	2,735	1	53
Amhara	2,230	8,053	42,618	50,365	452	6,512
Oromia	1,327	4,715	57,189	71,847	587	3,471
Somali	99	497	3,311	3,136	38	324
Benishangul-Gumuz	41	264	1,615	2,436	34	262
SNNP	288	1,730	22,354	44,434	602	4,735
Gambela	63	458	1,098	2,286	11	77
Harari	572	1,297	3,045	3,383	229	877
Addis Ababa	23,556	49,087	44,936	64,962	7,603	55,588
Dire Dawa	1,113	1,736	5,666	5,609	357	2,760

(Source: CSA, DTS: 2010/11)

Furthermore, for the year 2010/11, Table 3-39 presents the regional sex-disaggregated statistics for people engagement in various trade types (wholesale, retail and motor sales & maintenance). During 2010/11, once again more male engagement than female has been seen across all the three trade types. Specific to the wholesale trade, relatively higher female engagement is reported in Dire Dawa (39.1%) and Addis Ababa (32.4%) city administrations, whereas female engagement in retail trade is relatively better in Tigray region (52.4%), Somali region (51.4%) and Dire Dawa city administration (50.3%). However, with respect to the female engagement in motor sales & maintenance, in Harari (20.5%), Oromia (14.5%), Gambela (12.5%) and Addis Ababa city administration (12%) appeared to be better than others in the year 2010/11.

Figure 3-33: Percentage distribution of employee in wholesale, retail sales and motor vehicles sales & maintenance trade by sex and trade type, Country Total, 2013/14 G.C



(Source: CSA, DTS: 2013/14)

Pertaining to the distribution of employees across various trade types (wholesale, retail and motor sales & maintenance) by sex in 2013/14, Figure 3-33 reveals female employees are more than female employee. Specifically, female share being employee remained highest in wholesale (35.4%) followed by retail (32.5%) and motor sales & maintenance (20.1%).

Table 3-40: Percentage distribution of employee in wholesale, Retail sales and Motor Vehicles Sales & Maintenance trade by sex, region and trade type, 2013/14 G.C

	Wholesales		Retail		Motor sales & Maintenance	
Region	Female	Male	Female	Male	Female	Male
Country Total	83,735	152,537	71,337	148,483	10,154	40,256
Tigray	394	1,704	1,324	1,677	249	1,132
Afar	49	711	84	278	-	-
Amhara	859	4,656	3,316	21,240	392	4,367
Oromia	3,874	13,914	5,541	24,803	157	2,717
Somali	70	1,567	38	851	-	53
Benishangul-Gumuz	-	58	-	58	-	19
SNNP	888	5,889	1,055	9,403	148	2,536
Gambela	-	44	52	131	-	-
Harari	96	112	134	335	14	200
Addis Ababa	76,587	121,246	58,995	88,609	9,189	29,195
Dire Dawa	919	2,636	799	1,098	5	37

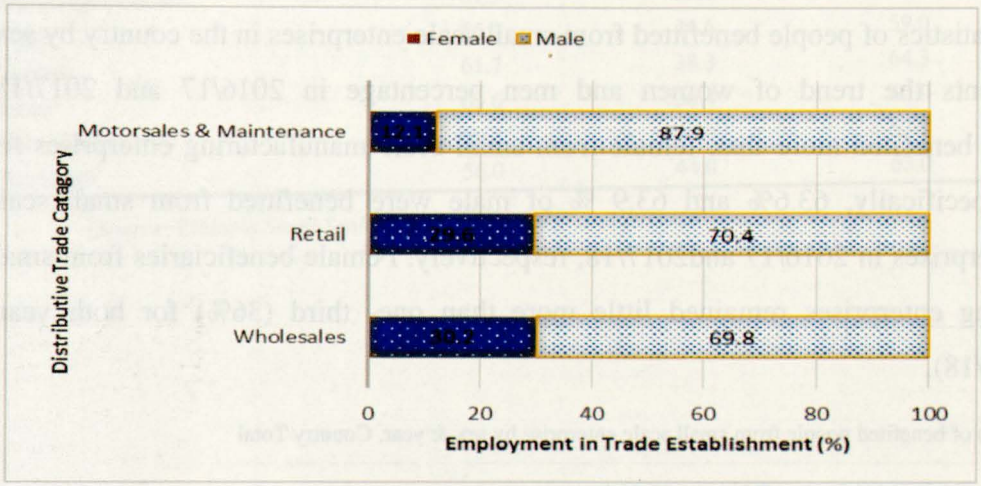
(Source: CSA, DTS: 2013/14)

Table 3-40 displays the regional statistics for permanent employee in various trade types (wholesale, retail and motor sales & maintenance) by sex for the year 2013/14. Male employee is larger than female employee across all the trade types and regions. Specifically, female employee is well observed in wholesale trade in Harari region (46.2%) and Addis Ababa city

administration (38.7%), and they relatively represented better in retail in Tigray region (44.1%), Dire Dawa (42.1%) and Addis Ababa (40%) city administrations, and motor sales & maintenance trade in Addis Ababa city administration (23.9%) and Tigray (18%) region in 2013/14.

Similarly, Figure 3-34 presents the distribution of employee across trade types (wholesale, retail and motor sales & maintenance) by sex for the year 2010/11. Accordingly, across all the trade types, male employees are found than female employees. Moreover, about 30.2% female are employed in wholesales trading, and about 29.6% are reported to be in retail with 12.1% in motor sales & maintenance.

Figure 3-34: Percentage distribution of employee wholesale, retail sales and motor vehicles sales & maintenance trade by sex and trade type, Country Total, 2010/11 G.C



(Source: CSA, DTS: 2010/11)

Likewise, Table 3-41 depicts the sex-disaggregated statistics of employee in various trade types for the year 2010/11. While male employee exceeds female across all the regions, no female employee has observed in Benishangul-Gumuz region for the given trade types (wholesale, retail and motor sales & maintenance). Specifically, pertaining to wholesale, female employment is found relatively better in Harari region (46.2%) and Addis Ababa (38.7%) city administration. Moreover, females are relatively more employed in retail trade in Tigray (44.1%), Dire Dawa (42.1%) and Addis Ababa (40%) city administrations. They are also more employed in Addis Ababa city administration (23.9%) and Tigray (18%) region for motor sales and maintenance in 2010/11.

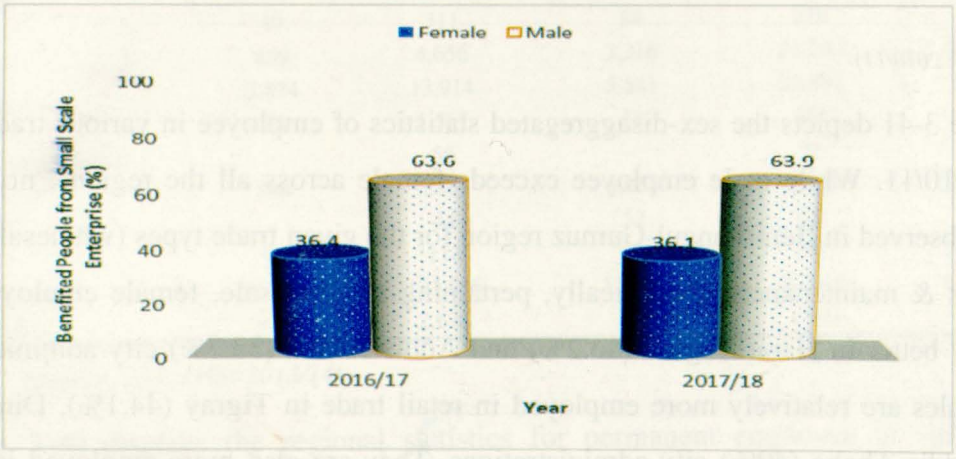
Table 3-41: Percentage distribution of employee in wholesale, retail sales and motor vehicles sales & maintenance trade by sex, region and trade type, 2010/11 G.C

Region	Wholesales		Retail		Motor sales & Maintenance	
	Female	Male	Female	Male	Female	Male
Country Total	18,828	43,419	15,721	37,325	6,757	48,944
Tigray	334	1,181	900	2,722	649	4,080
Afar	3	67	1	195	-	10
Amhara	1,238	4,723	1,085	1,920	183	2,260
Oromia	709	2,354	2,697	11,961	344	1,080
Somali	18	123	33	181	-	99
Benishangul-Gumuz	-	74	-	81	34	145
SNNP	186	1,214	564	2,946	261	2,481
Gambela	11	252	51	104	-	66
Harari	286	1,011	598	515	57	248
Addis Ababa	15,242	31,218	9,311	15,519	5,050	36,917
Dire Dawa	801	1,202	480	1,181	178	1,558

(Source: CSA-DTS: 2010/11)

Pertaining to the statistics of people benefitted from small scale enterprises in the country by sex, Figure 3-35 presents the trend of women and men percentage in 2016/17 and 2017/18. Accordingly, male benefited more than female from small scale manufacturing enterprises for both the years. Specifically, 63.6% and 63.9 % of male were benefitted from small scale manufacturing enterprises in 2016/17 and2017/18, respectively. Female beneficiaries from small scale manufacturing enterprises remained little more than one- third (36%) for both years (2016/17 and 2017/18).

Figure 3-35: Percentage of benefited people from small scale enterprise by sex & year, Country Total



(Source: Ethiopia Small Scale Enterprise: 2016/17 and 2017/18)

Similarly, Table 3-42 displays the regional statistics for the female and male beneficiaries in the small scale manufacturing enterprises, for the last two years (2016/17 and 2017/18). Accordingly, an increase in female beneficiaries from small scale manufacturing enterprises has

been observed Tigray (42.8% to 45.9%), Somali (29.1% to 45.3%), Harari (36.4% to 40%) and Addis Ababa city administration (40.9% to 42.3%) between 2016/17 and 2017/18. However, other regions reported declining trend in the female beneficiaries from small scale manufacturing enterprises during the same time period.

Table 3-42: Percentage of benefited people from small scale enterprise by sex, region and year

Region	2016/17		2017/18	
	Male	Female	Male	Female
Country Total	36.4	63.6	36.1	63.9
Tigray	57.2	42.8	54.1	45.9
Afar	59.8	40.2	82.7	17.3
Amhara	61.0	39.0	62.1	37.9
Oromia	61.3	38.7	62.1	37.9
Somali	70.9	29.1	54.7	45.3
Benishangul-Gumuz	61.5	38.5	64.7	35.3
SNNP	55.4	44.6	59.0	41.0
Gambela	61.7	38.3	64.3	35.7
Harari	63.6	36.4	60.0	40.0
Addis Ababa	59.1	40.9	57.7	42.3
Dire Dawa	56.0	44.0	63.0	37.0

(Source: Ethiopia Small Scale Enterprise: 2016/17 and 2017/18)

4. Agriculture

This chapter presents the sex-disaggregated statistics in private small holder agricultural activities, mainly to understand the roles and participation of men and women agricultural practitioners in the sector at national and regional level. Particularly in observing the gender differential and roles in agricultural production both crop and livestock's, resource use, access to agricultural credit and agricultural advisory service, women participation in agricultural activities (crop and livestock) and decision making. The data for the report are the CSA's Annual Agricultural Sample Surveys (AgSS) Main Season of the last five years (2013/14-2017/18) and the Ethiopian Socio-Economic Survey (ESS) of 2011/12, 2013/14 and 2015/16. For the purpose of analysis, sex dis-aggregated data pertaining to distribution of agricultural holder's crop and livestock production, access to agricultural extension, and advices, land holding, improved inputs (Seed, Fertilizer and Pesticides) and credit, irrigation, soil and water conservation practices, livestock ownership, gender roles in agricultural activities and decision making are covered and analyzed.

Concepts and definitions: -

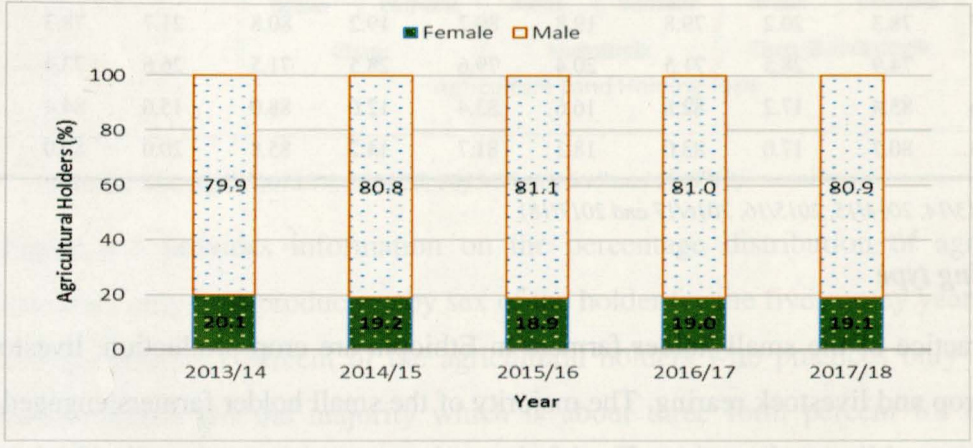
- **Agriculture:** - The growing of crops and/or raising of animals for own consumption and /or sale.
- **Agricultural Household:** - a household is considered an agricultural household when at least one member of the household is engaged in growing crops and/or raising livestock in private or in combination with others.
- **Agricultural Holding:** - a holding is all the land and /or livestock kept, which is used wholly or partly for agricultural production and is operated as one legal entity by one person alone, or with others without regard to management, organization, size or location.
- **Agricultural Holder**: - a holder is a person who exercises management control over the operation of the agricultural holding and makes the major decision regarding the utilization of the available resources. He/she has primary technical and economic responsibility for the holding. He/she may operate the holding directly as an owner or a manager.

*(Source: **Annual agricultural survey (AgSS) of CSA**)*

Agricultural Holders

Agriculture is the mainstay of the Ethiopian small holder farmers. It is exercised by more than 17 million agricultural holders. During the last five years on average 80.7 % of the agricultural holders were male and the remaining 19.3 % were female. Form the result of the AgSS, male agricultural small holder farmers are more that of female in the agricultural sector. Figure 5-1 presents the percentage distribution of agricultural holders by sex at country level from the 2013/14 to 2017/18 at country level.

Figure 4-1: Distribution of agricultural holders by sex and survey years, Country Totals



(Source, CSA, AgSS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

Table 4-1 presents the regional distribution of agricultural holders by sex for the last five survey years. On average higher percentage of female agricultural holders were (about 26.1% in Tigray) engaged in agriculture compared to the other regions followed Gambela (25.8%), SNNP (20.5%) and Afar (20.4%) in 2017/18. The percentage of female agricultural holders in the remaining regions were found less than 20 percent.

Table 4-1: Percentage distribution of agricultural holders by sex, regions and survey years

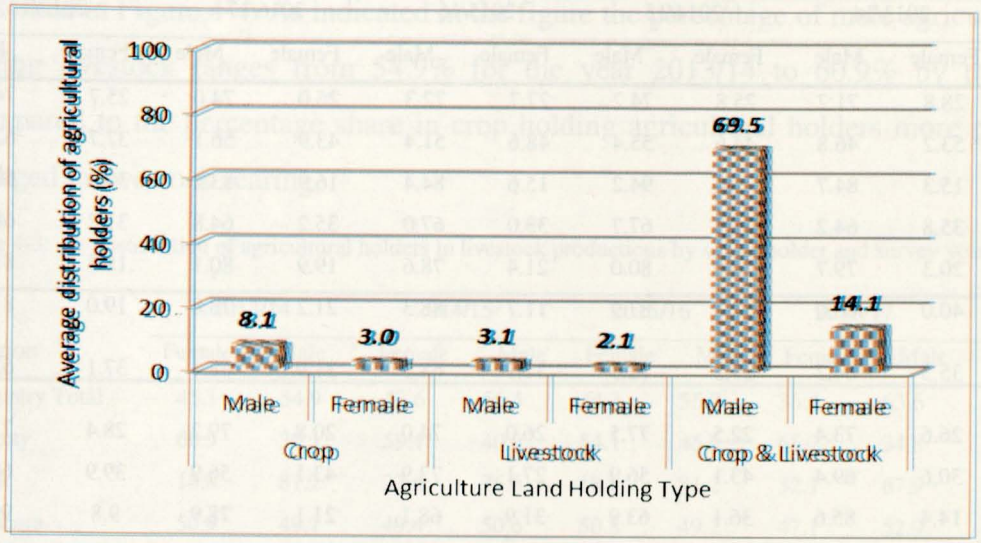
Region	2013/14		2014/15		2015/16		2016/17		2017/18	
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
Country Total	20.1	79.9	19.2	80.8	18.9	81.1	19.0	81.0	19.1	80.9
Tigray	27.4	72.6	25.0	75.0	25.3	74.7	26.3	73.7	26.5	73.5
Afar	18.7	81.3	19.4	80.6	17.1	82.9	29.6	70.4	17.0	83.0
Amhara	19.6	80.4	18.7	81.3	18.9	81.1	19.3	80.7	19.3	80.7
Oromia	18.0	82.0	17.9	82.1	17.2	82.8	16.5	83.5	16.5	83.5
Somali	21.8	78.2	18.6	81.4	18.0	82.0	21.0	79.0	16.4	83.6
Benishangul-Gumuz	21.6	78.4	20.0	80.0	21.3	78.7	21.6	78.4	23.7	76.3
SNNP	21.7	78.3	20.2	79.8	19.8	80.2	19.2	80.8	21.7	78.3
Gambela	25.1	74.9	28.5	71.5	20.4	79.6	28.5	71.5	26.6	73.4
Harari	14.6	85.4	17.2	82.8	16.6	83.4	12.0	88.0	15.6	84.4
Dire Dawa	19.3	80.7	17.0	83.0	18.3	81.7	14.2	85.8	20.0	80.0

(Source, CSA, AgSS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

Agricultural holding type

The agriculture practice of the small holder farmers in Ethiopia are crop production, livestock rearing and both crop and livestock rearing. The majority of the small holder farmers engaged in both crop production and livestock rearing. Fig 4.2 shows the average percentage distribution of agricultural holders by type of agricultural holding by sex of the holders for the survey years at national level. From the data at national level 69.5 percent of the agricultural holders are male who cultivate land and rear livestock during the survey years on average. The share of female agricultural holders who are engaged in both cultivating land and rearing of livestock are about 14 percent. Male and female agricultural holder who are engaged in cultivating land for growing crops are 8.1 % and 3 % on average, respectively. Only 5.2 percent of the agricultural holders are engaged in livestock rearing on average during the survey rears.

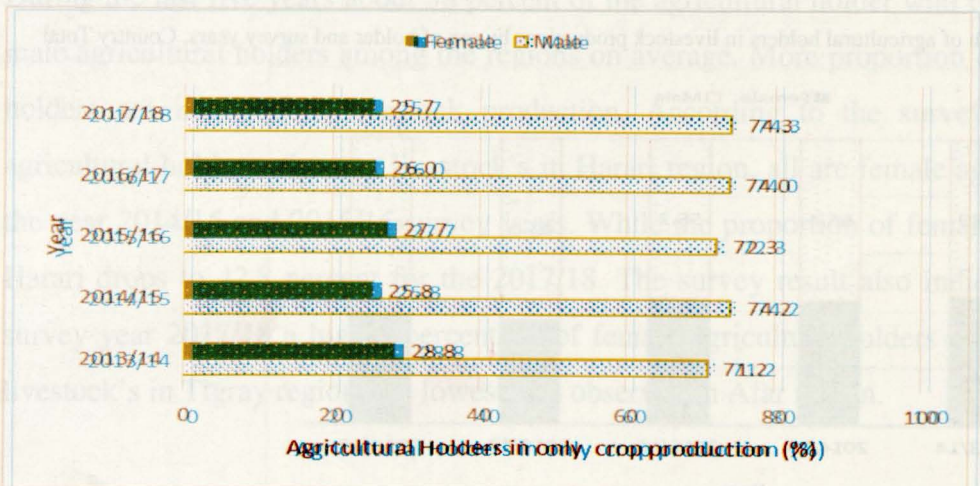
Figure 4-2: Average distribution of agricultural holders by type of holding and sex for the five years, 2013/14-2017/18, Country Level



(Source, CSA, AgSS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

Figure 4-3 provides information on the percentage distribution of agricultural holder who exercises only crop production by sex of the holder for the five survey years at national level. On average about 27 percent of the agricultural holders who practices only crop production were female which left the majority which is about three forth percent for their male agriculture holders.

Figure 4-3: Percentage distribution of agricultural holders in only crop production by sex of holder and survey years, Country Total



(Source, CSA, AgSS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

Table 4-2: Distribution of agricultural holders in only crop production by sex of holder, region and survey years

Region	2013/14		2014/15		2015/16		2016/17		2017/18	
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
Country Total	28.8	71.2	25.8	74.2	27.7	72.3	26.0	74.0	25.7	74.3
Tigray	53.2	46.8	44.6	55.4	48.6	51.4	43.9	56.1	37.7	62.3
Afar	15.3	84.7	5.8	94.2	15.6	84.4	16.9	83.1	30.8	69.2
Amhara	35.8	64.2	32.3	67.7	33.0	67.0	35.2	64.8	31.2	68.8
Oromia	20.3	79.7	20.0	80.0	21.4	78.6	19.9	80.1	18.5	81.5
Somali	40.0	60.0	12.2	87.9	11.7	88.3	21.2	78.8	19.0	81.0
Benishangul-Gumuz	35.3	64.7	27.5	72.5	31.1	68.9	31.9	68.1	37.1	62.9
SNNP	26.6	73.4	22.5	77.5	26.0	74.0	20.8	79.2	28.4	71.6
Gambela	30.6	69.4	43.1	56.9	27.1	72.9	43.1	56.9	39.9	60.0
Harari	14.4	85.6	36.1	63.9	31.9	68.1	21.1	78.9	9.8	90.2
Dire Dawa	42.0	58.0	18.9	81.1	24.1	75.9	25.2	74.8	0.0	100.0

(Source, CSA, AgSS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

Table 4-2 presents the regional distribution of agricultural holders involved only in crop production activities. Tigray region has the highest proportion of female agricultural holder in only crop production category of agricultural holding, which is about 45 percent on average, followed by Gambella (36.8%), Amhara (33.5%) and Benishangul-Gumuz (32.6%) regional states. The lowest average percentage of female in cultivating only crops for the last five years was found in Afar region (16.9%).

Figure 4-4: Distribution of agricultural holders in livestock productions by sex of holder and survey years, Country Total



(Source, CSA, AgSS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

The percentage distribution of agricultural holders who rear livestock only at national level is presented in Figure 4-4. As indicated in the figure the percentage of male agricultural holder only rearing livestock ranges from 54.9% for the year 2013/14 to 60.9% by the year 2017/18. Compared to the percentage share in crop holding agricultural holders more percent of female engaged in livestock rearing.

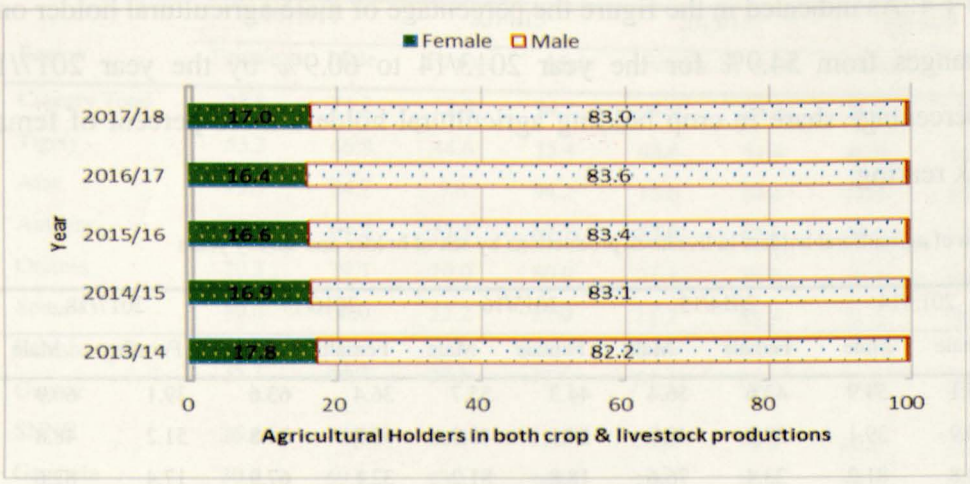
Table 4-3: Distribution of agricultural holders in livestock productions by sex of holder and survey years

Region	2013/14		2014/15		2015/16		2016/17		2017/18	
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
Country Total	45.1	54.9	43.6	56.4	44.3	55.7	36.4	63.6	39.1	60.9
Tigray	60.9	39.1	59.1	40.9	54.1	45.9	65.2	34.8	51.2	48.8
Afar	18.8	81.2	23.4	76.6	18.8	81.2	32.1	67.9	17.4	82.6
Amhara	50.9	49.1	49.4	50.6	50.8	49.2	47.1	52.9	47.9	52.1
Oromia	47.1	52.9	44.9	55.1	42.0	58.0	38.7	61.3	36.7	63.3
Somali	37.0	63.0	32.6	67.4	33.0	67.0	27.0	73.0	27.7	72.3
Benishangul-Gumuz	50.3	49.7	26.9	73.1	44.1	55.9	18.4	81.6	38.1	61.9
SNNP	34.6	65.4	34.4	65.6	34.6	65.4	33.9	66.1	30.0	70.0
Gambela	36.1	63.9	28.3	71.8	41.8	58.2	28.3	71.8	50.8	49.2
Harari	59.9	40.1	100.0	0.0	100.0	0.0	69.7	0.0	42.3	57.7
Dire Dawa	45.2	54.8	50.7	49.3	31.6	68.4	27.8	72.2	45.3	54.7

(Source, CSA, AgSS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

During the last five years about 58 percent of the agricultural holder who rear livestock only are male agricultural holders among the regions on average. More proportion of female agricultural holders are involved in livestock production. According to the survey results, out of the agricultural holders who rear livestock's in Harari region, all are female agricultural holders for the year 2014/15 and 2015/16 survey years. While the proportion of female rearing livestock in Harari drops to 42.8 percent for the 2017/18. The survey result also indicates for these recent survey year 2017/18 a higher percentage of female agriculture holders are observed in rearing livestock's in Tigray region, the lowest was observed in Afar region.

Figure 4-5: Distribution of agricultural holders in both crop and livestock productions by sex of holder and survey years, Country Total



(Source, CSA, AgSS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

In Ethiopia integrated crop and livestock agriculture is exercised in most part of rural areas. Figure 4.5. shows the distribution of agricultural holders who engaged in both crop & livestock productions by sex of holder for the last five survey years at country level. As indicated in Figure 4.5, for the last five survey years on average 83 percent of the agricultural holders who involved in both crop and livestock production activity are male. While the remaining 17 percent are accounted for female agricultural holders.

Table 4-4 presents the regional distribution of agricultural holders in both crop and livestock production by sex for the last five survey years. The result of the survey also reveals the dominance of male agricultural holders in integrated crop and livestock small holder agriculture in all regions.

Table 4-4: Distribution of agricultural holders in both crop and livestock productions by sex of holder, region and survey years

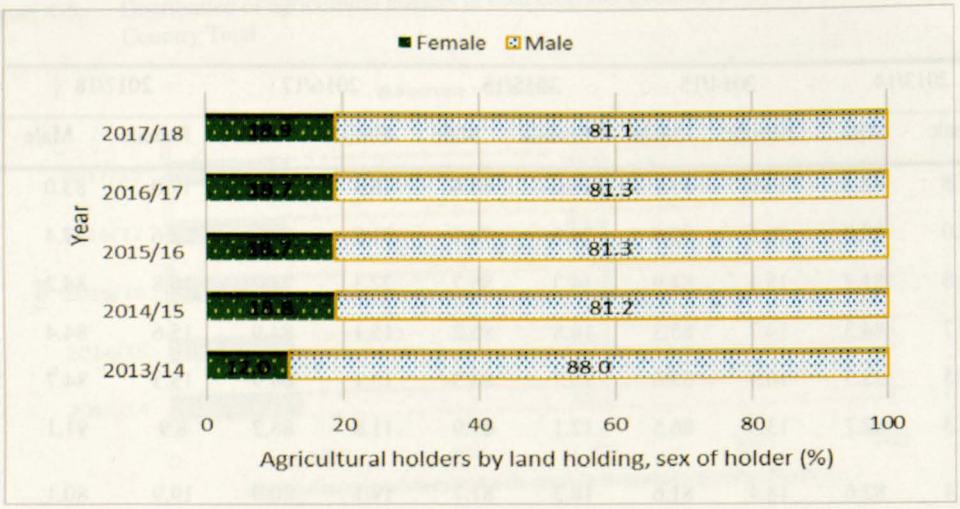
Region	2013/14		2014/15		2015/16		2016/17		2017/18	
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
Country Total	17.8	82.2	16.9	83.1	16.6	83.4	16.4	83.6	17.0	83.0
Tigray	22.0	78.0	20.1	79.9	20.5	79.5	21.2	78.8	22.6	77.4
Afar	18.8	81.2	15.1	84.9	14.3	85.7	22.3	77.7	15.8	84.2
Amhara	15.7	84.3	14.7	85.3	14.8	85.2	15.1	84.9	15.6	84.4
Oromia	16.5	83.5	16.4	83.6	15.7	84.3	15.1	84.9	15.3	84.7
Somali	17.3	82.7	13.5	86.5	12.1	87.9	11.8	88.2	8.9	91.1
Benishangul-Gumuz	17.4	82.6	18.4	81.6	18.3	81.7	19.1	80.9	19.9	80.1
SNNP	20.7	79.3	19.4	80.6	18.8	81.2	18.6	81.4	20.7	79.3
Gambela	22.9	77.1	22.7	77.3	17.0	83.0	22.7	77.3	21.6	78.4
Harari	14.2	85.8	15.5	84.5	14.1	85.9	10.6	89.4	16.0	84.0
Dire Dawa	15.2	84.8	10.9	89.1	16.0	84.0	11.9	88.1	12.7	87.3

(Source, CSA, AgSS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

Agricultural land holding

Agricultural land holding is the major asset for crop production in small holder agricultural practices. Figure 4.6 shows the distribution of agricultural holders who reported having agricultural land holding for the last five years by sex of holders at national level. According to the result on average about 83 % of agricultural holders who reported agricultural land holding are male, while the remain 17 percent are female agricultural holders. Looking in to the trend of the percentage share of female in land holding, the result shows an increase even though the increment is little.

Figure 4-6: Percentage distribution agricultural holders by land holding, sex of holder and survey years, Country Total



(Source, CSA, AgSS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

Table 4-5 summarize the regional percentage distribution of agricultural land holders by sex. Based on the result of the survey more than 80 percent of the agricultural holders reported agricultural holding are males. Among the regions, Tigray account a higher percentage of female in holding agricultural land on average 26% followed by Gambela and Somali regional states, 22.9% and 20.5%, respectively on average for the survey years. The lowest percentage of female agricultural holding reported in Harari region on average 14.3 during these periods

Table 4-5: Percentage distribution agricultural holders land ownership size by sex of holder, region and survey years

	2013/14		2014/15		2015/16		2016/17		2017/18	
Region	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
Country Level	12.0	88.0	18.8	81.2	18.7	81.3	18.7	81.3	18.9	81.1
Tigray	12.8	87.2	24.8	75.2	25.3	74.7	26.2	73.8	26.4	73.6
Afar	14.1	85.9	19.4	80.6	17.1	82.9	29.5	70.5	17.2	82.8
Amhara	8.9	91.1	18.1	81.9	18.5	81.5	18.8	81.2	19.0	81.0
Oromia	12.4	87.6	18.5	81.5	18.0	82.0	21.0	79.0	16.4	83.6
Somali	16.0	84.0	20.2	79.8	21.2	78.8	21.6	78.4	23.7	76.3
Benishangul-Gumuz	11.3	88.7	20.0	80.0	19.7	80.3	18.9	81.1	21.7	78.3
SNNP	16.7	83.3	17.5	82.5	16.9	83.1	16.3	83.7	16.3	83.7
Gambela	16.0	84.0	22,9	77.1	20.4	79.6	28.6	71.4	26.7	73.3
Harari	10.4	89.6	17.2	82.8	16.4	83.6	12.0	88.0	15.6	84.4
Dire Dawa	11.8	88.2	16.2	83.8	18.3	81.7	13.6	86.4	19.0	81.0

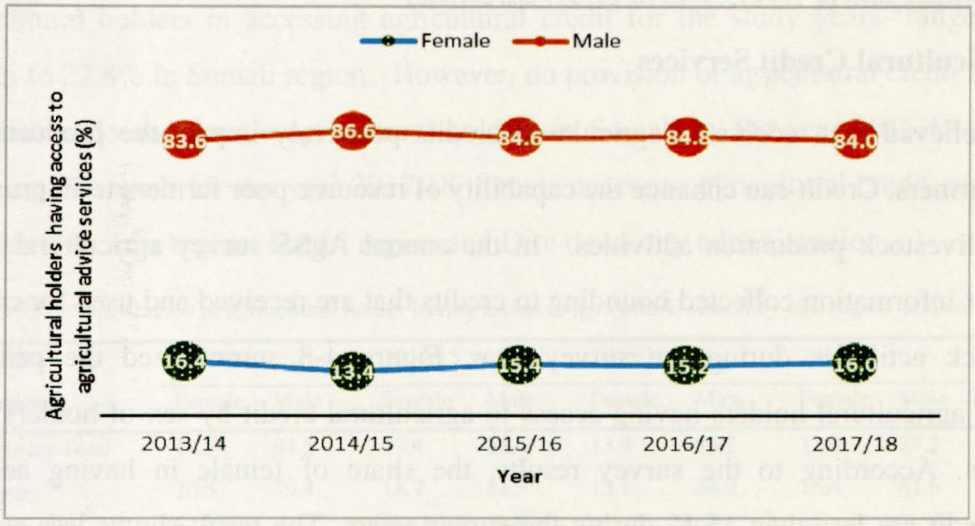
(Source, CSA, AgSS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

4.2. Access to Agricultural Services

Agricultural Advisory services

Farmer's access to timely agricultural advisory service is very important for increasing the production, productivity and efficiency of small holder agriculture. However due to so many socio-economic and other impeding factors farmers access to these services differs between different groups and actors in the sector. Figure 4-7 summarizes the distribution of agricultural holders who receive agricultural advice by sex of the holder at national level for the last five years. The result of the AgSS for the last five years shows that among the agricultural holders who reported have access to agricultural services on average only 15 % of them are female. The result reveals that female have less access to agricultural advices that are very crucial for improving their productivity.

Figure 4-7: Distribution of agricultural holders having access to agricultural advice services by sex and survey years, Country Level



(Source, CSA, AgSS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

Table 4-6 shows the regional percentage distribution of male and female agricultural holder to access of advisory service for the five survey years. As shown in the table on average a higher proportion of female agricultural holders are reported in Gambela (25.8%) and Tigray regions (21.4%), compared to other regions. For the other regions the proportion of female having access to the agricultural service on average for the five years' ranges from 10.3 in Dire dewa City administration to 18.1% SNNP region.

Table 4-6: Distribution of agricultural holder having access to agricultural advice services by sex and region and survey years

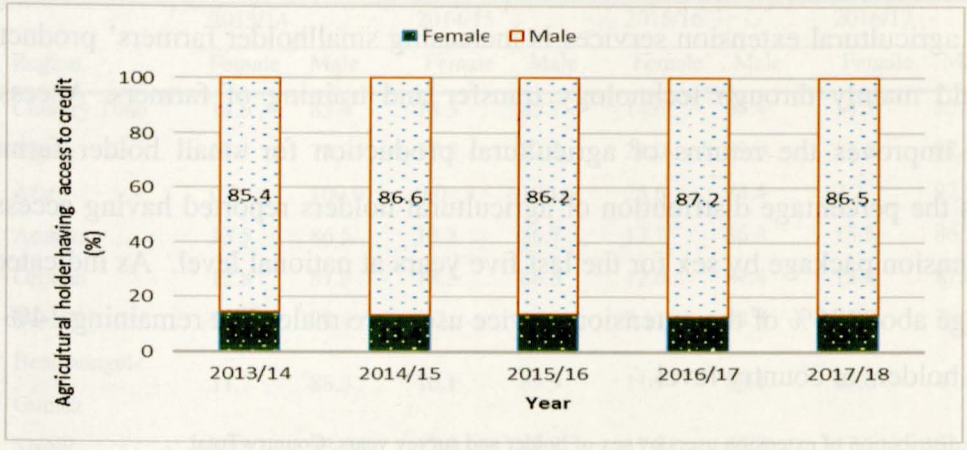
Region	2013/14		2014/15		2015/16		2016/17		2017/18	
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
Country Total	16.4	83.6	13.4	86.6	15.4	84.6	15.2	84.8	16.0	84.0
Tigray	23.4	76.6	18.7	81.3	20.8	79.2	21.5	78.5	22.7	77.3
Afar	20.7	79.3	0.0	100.0	36.3	63.7	19.0	81.0	12.8	87.2
Amhara	15.7	84.3	10.3	89.7	14.1	85.9	14.8	85.2	15.1	84.9
Oromia	14.6	85.4	12.4	87.6	13.2	86.8	13.0	87.0	13.8	86.2
Somali	22.1	77.9	8.5	91.5	27.2	72.8	10.7	89.3	1.7	98.3
Benishangul–Gumuz	19.4	80.6	11.3	88.7	17.8	82.2	18.1	81.9	18.7	81.3
SNNP	18.3	81.7	17.3	82.7	18.6	81.4	17.3	82.7	19.2	80.8
Gambela	27.4	72.6	22.7	77.3	17.9	82.1	26.8	73.2	34.2	65.8
Harari	11.5	88.5	8.7	91.3	13.1	86.9	7.3	92.7	17.6	82.4
Dire Dawa	12.2	87.8	13.8	86.2	11.9	88.1	7.7	92.3	5.8	94.2

(Source, CSA, AgSS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

Access to Agricultural Credit Services

It is widely believed that, access to agricultural credits positively impact the productivity of small holder farmers. Credit can enhance the capability of resource poor farmers to improve their cropping and livestock production activities. In the annual AgSS survey agricultural holders access to credit information collected bounding to credits that are received and used for cropping and/or livestock activities during the survey year. Figure 4-8 summarized the percentage distribution of agricultural holders having access to agricultural credit by sex of holders for the last five years. According to the survey results, the share of female in having access to agricultural credit are less than 15 % during the survey years. The result shows less access of female agricultural holders to agricultural credit services at national level.

Figure 4-8: Distribution of agricultural holder having access to credit by sex and survey years, Country Total



(Source, CSA, AgSS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

Table 4-7 presents the regional distribution of male and female agricultural holders who have access to agricultural credit for the last five years. The average percentage share of female agricultural holders in accessing agricultural credit for the study years' ranges from 6.3% in Harari to 22.8% in Somali region. However, no provision of agricultural credit services is found for both male and female agricultural holders in Somali by the year 2015/16 production year. Looking the result for the year 2017/18, female access to agricultural credit service reported to zero level in Afar region, Harari region and Dire dewa city administration.

Table 4-7: Distribution of agricultural holder having access to agricultural credit by sex, region and survey years

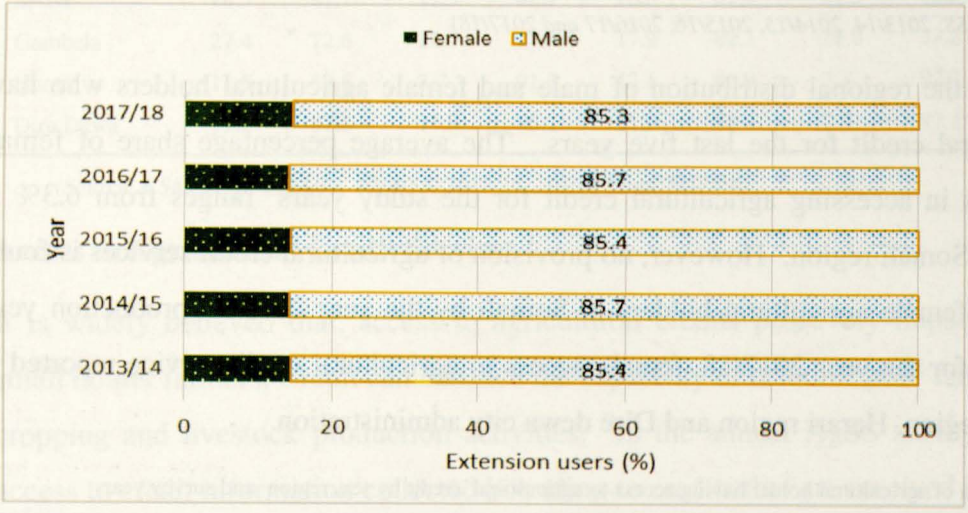
Region	2013/14		2014/15		2015/16		2016/17		2017/18	
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
Country Total	14.6	84.5	13.4	86.6	13.8	86.2	12.8	87.2	13.5	86.5
Tigray	20.6	79.4	18.7	81.3	15.1	84.9	18.4	81.6	21.5	78.5
Afar	28.3	71.7	0.0	100.0	4.2	95.8	26.9	73.1	0.0	100.0
Amhara	11.3	88.7	10.3	89.7	10.4	89.6	10.0	90.0	11.0	89.0
Oromia	13.3	86.7	12.4	87.6	13.8	86.2	11.0	89.0	11.2	88.8
Somali	15.9	84.1	8.5	91.5	-	-	37.7	62.3	29.1	70.9
Benishangul-Gumuz	13.6	86.4	11.3	88.7	8.8	91.2	12.1	87.9	9.4	90.6
SNNP	18.2	81.8	17.3	82.7	19.1	80.9	16.3	83.7	18.7	81.3
Gambela	19.4	80.6	14.8	85.2	10.2	89.8	23.0	77.0	31.6	68.4
Harari	14.8	85.2	8.7	91.3	8.1	91.9	0.0	100.0	0.0	100.0
Dire Dawa	22.6	77.4	13.8	86.2	0.0	100.0	37.9	62.1	0.0	100.0

(Source, CSA, AgSS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

Agricultural Extension Services

The main focus of agricultural extension services is increasing smallholder farmers' production and improving yield mainly through technology transfer and training of farmers. Access to extension services improves the returns of agricultural production for small holder farmers. Figure 4.9 presents the percentage distribution of agricultural holders reported having access to the agricultural extension package by sex for the last five years at national level. As indicated in the figure on average about 86% of the extension service users are male. The remaining 14% are female agricultural holders at country level.

Figure 4-9: Percentage distribution of extension users by sex of holder and survey years, Country Total



(Source, CSA, AgSS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

The regional distributions of agricultural holders having access to extension services by sex for the five survey periods are presented in Table 4-8. According to the survey result, Tigray and SNNP regional states accounted a higher percentage of female extension users, 19.3% and 17.8% on average in their respective orders.

Table 4-8: Percentage distribution of extension users by sex of holder, region and survey years

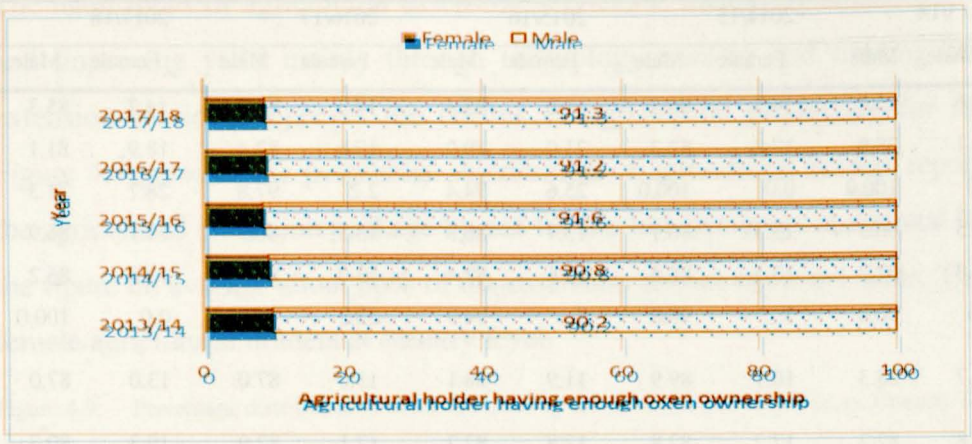
Region	2013/14		2014/15		2015/16		2016/17		2017/18	
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
Country Total	14.6	85.4	14.3	85.7	14.6	85.4	14.3	85.7	14.7	85.3
Tigray	21.1	78.9	17.8	82.2	21.0	79.0	17.6	82.4	18.9	81.1
Afar	0.0	100.0	0.0	100.0	25.6	74.4	2.2	97.8	28.7	71.3
Amhara	13.5	86.5	13.3	86.7	13.7	86.3	13.5	86.5	13.1	86.9
Oromia	12.8	87.2	13.5	86.5	12.6	87.4	13.0	87.0	13.8	86.2
Somali	9.6	90.4	3.2	96.8	5.1	94.9	23.2	76.8	0.0	100.0
Benishangul-Gumuz	11.7	88.3	10.1	89.9	11.9	88.1	13.0	87.0	13.0	87.0
SNNP	17.8	82.2	17.2	82.8	17.8	82.2	17.1	82.9	19.3	80.7
Gambela	0.0	100.0	4.3	97.7	8.6	91.4	32.2	67.8	7.6	92.4
Harari	11.3	88.7	14.4	85.6	13.0	87.0	10.1	89.9	10.8	89.2
Dire Dawa	10.6	89.4	13.1	86.9	14.4	85.6	2.9	97.1	0.0	100.0

(Source, CSA, AgSS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

Oxen Ownership

The ownership of oxen has to do with a good farm management practices in rural subsistence farming in Ethiopia. Farmers with access to at least two oxen can perform their agricultural farm land preparation and plough timely. Figure 4.10 summarizes the distribution agricultural holders having enough oxen for the last five survey years at national level. The survey result shows among the agricultural holder who reported having enough oxen, females constitute on average less than 10 percent. Almost the majority of the agricultural holders reported owning at least two oxen are male agriculture holders. The result reveals less access of oxen for female agricultural holders.

Figure 4-10: Percentage distribution of agricultural holder having enough oxen ownership by sex of holder and survey years, Country Total



(Source, CSA, AgSS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

The regional distribution of agricultural holders who have enough oxen by sex for the five survey years are presented on Table 4.9. according to the survey result, among the agricultural holder who reported having enough oxen female on average constitutes highest in Afar (11.2%) followed by Oromia (10.6 %) and the least is in Dire Dawa (1.5%).

Table 4-9: Percentage distribution of agricultural holder having enough oxen ownership by sex of holder, region and survey years

	2013/14		2014/15		2015/16		2016/17		2017/18	
Region	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
Country Total	9.8	90.2	9.2	90.8	8.4	91.6	8.8	91.2	8.7	91.3
Tigray	9.3	90.7	7.4	92.6	8.0	92.0	8.9	91.1	10.2	89.8
Afar	10.9	89.1	11.1	88.9	3.6	96.4	26.8	73.2	3.5	96.5
Amhara	6.8	93.2	5.7	94.3	6.1	93.9	5.4	94.6	5.4	94.6
Oromia	11.3	88.7	11.2	88.8	9.7	90.3	10.6	89.4	10.0	90.0
Somali	11.9	88.1	9.8	90.2	9.4	90.6	5.1	94.9	6.5	93.5
Benishangul-Gumuz	8.5	91.5	5.7	94.3	6.9	93.1	8.2	91.8	9.9	90.1
SNNP	13.2	86.8	13.5	86.5	10.0	90.0	9.3	90.7	11.5	88.5
Gambela	8.8	91.2	6.1-	93.9	3.5	96.5	8.6	91.4	0.0	100.0
Harari	7.4	92.6	8.5	91.5	4.0	96.0	4.2	95.8	0.0	100.0
Dire Dawa	1.7	98.3	0.6	99.4	0.0	100.0	0.0	100.0	4.9	95.1

(Source, CSA, AgSS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

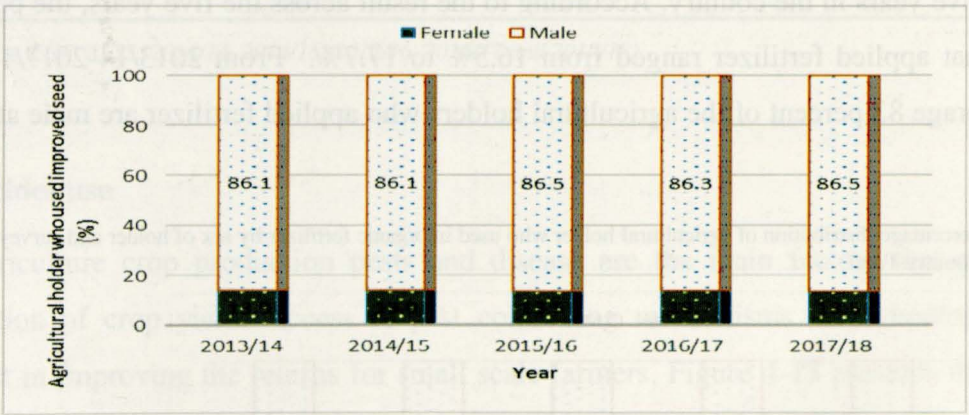
4.3. Access to Inputs

Farmers access to inputs increase their efficiency of increasing farm returns in small holder agriculture. The existence of gender disparity in accessing these agricultural inputs hinder the performance of agricultural holder in agricultural production. In this section, the agricultural holder access and use of inputs (Improved Seed, Fertilizer and Pesticides) and their distribution at national and regional level presented based on the result of the AgSS for the last five years.

Improved Seed

Access to and use of improved seed is critical factors for the ability of small holder farmers to increase agricultural production and productivity, ensuring food security and livelihoods. Figure 4-11 presents the national distribution of agricultural holders who used improved seed by sex for the last five survey years. As indicated in the figure almost the majority of small holder farmers (>86%) who reported having access and used improved seed in the last five years are male. The study reveals that limited access and use of improved seed are reported for female agricultural holders. From the last five AgSS result, on average about 14 percent of agricultural holders who used improved seed are female.

Figure 4-11: Percentage distribution of agricultural holder who used improved seed by sex of holder and survey years, Country Total



(Source, CSA, AgSS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

Table 4-10 shows the regional percentage distribution of agricultural holders who have used improved seed by sex for the last five years. Regionally, Afar (24.9 %), Tigray (19.4 %), SNNP (16.8 %) and Somali (15.3 %) accounted on average a little higher percentage of female user of improved seed than the other regions in their respective order. However, the regional distribution of female in the use of improved seed is minimal than male.

Table 4-10: Percentage distribution of agricultural holder who used improved seed by sex of holder, region and survey years

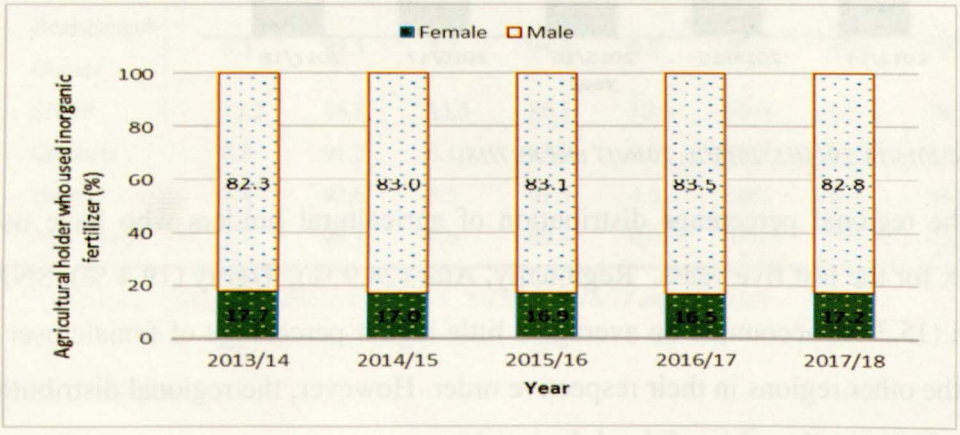
Region	2013/14		2014/15		2015/16		2016/17		2017/18	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Country Total	86.1	13.9	86.1	13.9	13.5	86.5	13.7	86.3	13.5	86.5
Tigray	23.0	77.0	17.1	82.9	17.0	83.0	22.9	77.1	17.0	83.0
Afar	14.3	85.7	25.0	75.0	25.5	74.5	34.0	66.0	25.5	74.5
Amhara	12.3	87.7	12.8	87.2	12.9	87.1	11.8	88.2	12.9	87.1
Oromia	12.3	87.7	12.9	87.1	11.4	88.6	12.7	87.3	11.4	88.6
Somali	7.6	92.4	11.9	88.1	14.9	85.1	27.3	72.7	14.9	85.1
Benishangul-Gumuz	13.7	86.3	5.8	94.2	6.9	93.1	13.9	86.1	6.9	93.1
SNNP	16.9	83.1	17.1	82.9	17.4	82.6	15.3	84.7	17.4	82.6
Gambela	18.3	81.7	11.9	88.1	5.6	94.4	54.0	46.0	5.6	94.4
Harari	18.2	81.8	14.5	85.5	12.1	87.9	12.7	87.3	12.1	87.9
Dire Dawa	17.9	82.1	8.5	91.5	10.3	89.7	14.0	86.0	10.3	89.7

(Source, CSA, AgSS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

Fertilizer Use

Fertilizer is one of the inputs that improves the productivity of crop. Farmers access and use of inorganic fertilizer increase their efficiency of getting higher returns from their crop production. Figure 4.12 presents the distribution of agricultural holders applying inorganic fertilizer by sex for the last five years in the country. According to the result across the five years, the percentage of female that applied fertilizer ranged from 16.5% to 17.7%. From 2013/14-2017/18 survey years on average 83 percent of the agricultural holders who applied fertilizer are male at national level.

Figure 4-12: Percentage distribution of agricultural holder who used in organic fertilizer by sex of holder and survey years, Country Total



(Source, CSA, AgSS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

Table 4-11 shows the regional distribution of agricultural holders applied fertilizer by sex and survey years. According to the result across the five years, the percentage of female that applied fertilizer is very small compared to male agricultural holders. Moreover, the percentages of female agricultural holders who used inorganic fertilizers are highest on average in Tigray (22.6 %) and lowest in Somali (8.3 %).

Table 4-11: Percentage distribution of agricultural holder who used inorganic fertilizer by sex of holder, region and survey years

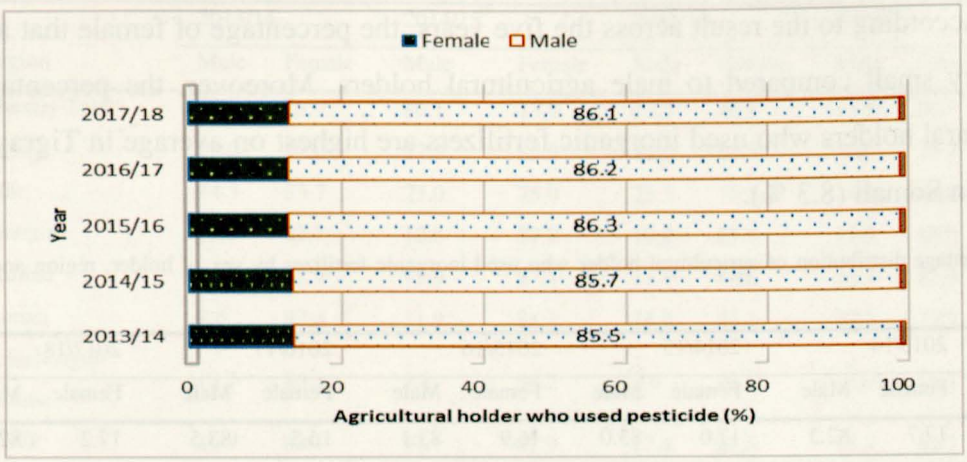
Region	2013/14		2014/15		2015/16		2016/17		2017/18	
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
Country Total	17.7	82.3	17.0	83.0	16.9	83.1	16.5	83.5	17.2	82.8
Tigray	23.5	76.5	21.7	78.3	22.5	77.5	22.4	77.6	23.1	76.9
Afar	20.8	79.2	9.5	90.5	2.7	97.3	57.2	42.8	3.2	96.8
Amhara	15.8	84.2	14.9	85.1	15.4	84.6	15.7	84.3	15.7	84.3
Oromia	16.2	83.8	16.1	83.9	15.5	84.5	14.8	85.2	15.5	84.5
Somali	6.0	94.0	3.4	96.6	7.1	92.9	9.2	90.8	16.0	84.0
Benishangul-Gumuz	15.9	84.1	15.0	85.0	17.1	82.9	17.0	83.0	18.0	82.0
SNNP	20.7	79.3	19.4	80.6	19.1	80.9	18.6	81.4	21.1	78.9
Gambela	20.8	79.2	12.6	87.4	4.5	95.5	12.4	87.6	23.9	76.1
Harari	12.1	87.9	15.9	84.1	14.9	85.1	11.6	88.4	14.0	86.0
Dire Dawa	14.5	85.5	8.3	91.7	11.3	88.7	10.1	89.9	13.7	86.3

(Source, CSA, AgSS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

Pesticides use

In agriculture crop production pests and disease are the main factors that contribute to the reduction of crop yield. Access to pest controlling mechanisms or technologies has a great impact in improving the returns for small scale farmers. Figure 4-13 presents the distribution of agricultural holders that reported applying pesticides by sex for the last five years at national level. On average 85 percent of agricultural household who applied pesticides for the last five survey years are male. While on average about 14 % of agricultural holders who used pesticides are female.

Figure 4-13: Percentage distribution of Agricultural holder who used pesticide by sex of holder and Survey years, Country Total



(Source, CSA, AgSS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

Regional results also show more men than female are found applying pesticide during the survey years. The regional distribution of agricultural folders applying pesticides by survey year is indicated on Table 4-12. As shown in the table the result varies across region. Extreme results are observed in Afar and Somali regions, in Afar no single female agricultural holders reported during 2013/14 and 2015/16 to 100 % males' users by the year 2017/18. While for Somali region the result ranges from 100% male domination for the year 2013/14 to none of the agricultural holders use of pesticides from the year 2014/15-2017/19. On average during the last five years a higher percentage of female agricultural holders applying pesticides is observed in Dire Dawa, SNNP, Tigray and Oromia, 23.3%, 20.8%, 14.9 % and 14.2% in their respective orders.

Table 4-12: Percentage distribution of agricultural holder who used pesticide by sex of holder, region and survey years

Region	2013/14		2014/15		2015/16		2016/17		2017/18	
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
Country Total	14.5	85.5	14.3	85.7	13.7	86.3	13.8	86.2	13.9	86.1
Tigray	14.5	85.5	13.7	86.3	16.6	83.4	15.1	84.9	14.7	85.3
Afar	-	-	5.8	94.2	0.0	100.0	4.2	95.8	0.0	100.0
Amhara	9.9	90.1	9.5	90.5	9.7	90.3	10.4	89.6	9.3	90.7
Oromia	14.4	85.6	15.0	85.0	13.4	86.6	13.8	86.2	14.2	85.8
Somali	0.0	100.0	-	-	-	-	-	-	-	-
Benishangul-Gumuz	14.8	85.2	11.5	88.5	7.1	92.9	8.8	91.2	7.1	92.9
SNNP	21.3	78.7	20.5	79.5	20.3	79.7	19.1	80.9	22.8	77.2
Gambela	5.2	94.8	3.8-	96.2	2.5	97.5	10.2	89.8	15.9	84.1
Harari	4.9	95.1	11.3	88.7	13.2	86.8	8.1	91.9	2.1	97.9
Dire Dawa	10.8	89.2	33.3	66.7	35.0	65.0	0.0	100.0	37.2	62.8

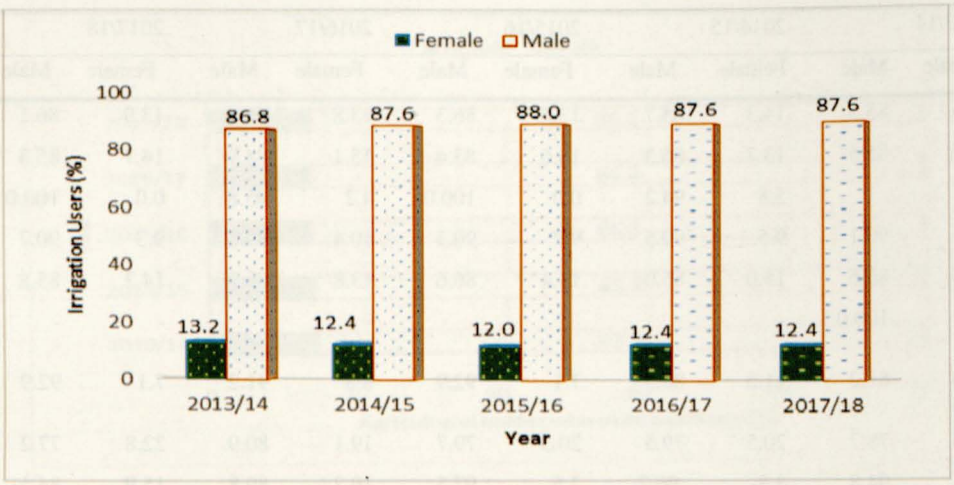
(Source, CSA, AgSS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

Agricultural Practice

Irrigation

Figure 4-14 shows the percentage distribution of irrigation users of small holder farmers by sex from 2013/14 to 2017/18 AgSS periods. Hence, at the country level the average annual male irrigation users are much higher (87.5 %) during the last five years as compared to female irrigation users (12.5%). It is also observed that the percentage distribution of female irrigation users for the last five years shows fluctuating trends. The highest proportion of female irrigation users observed in the year 2013/14 (13.2%) then decreased and kept almost constant until the recent production period of 2017/18.

Figure 4-14: Percentage distribution of irrigation users by sex of holder and survey years, Country Level



(Source, CSA, AgSS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

Regionally, the highest number of female irrigation users during the last five years is observed in Tigray and Afar regions. As shown in Table 4-13, the average annual female's irrigation users in these two regions were about 18.9 percent. However, the lowest average annual female's irrigation users found in Gambela region (4.3%). Generally, the proportion of male irrigation users much higher than female irrigation users across all over the regions of Ethiopia.

Table 4-13: Percentage distribution of irrigation users by sex of holder, region and survey years

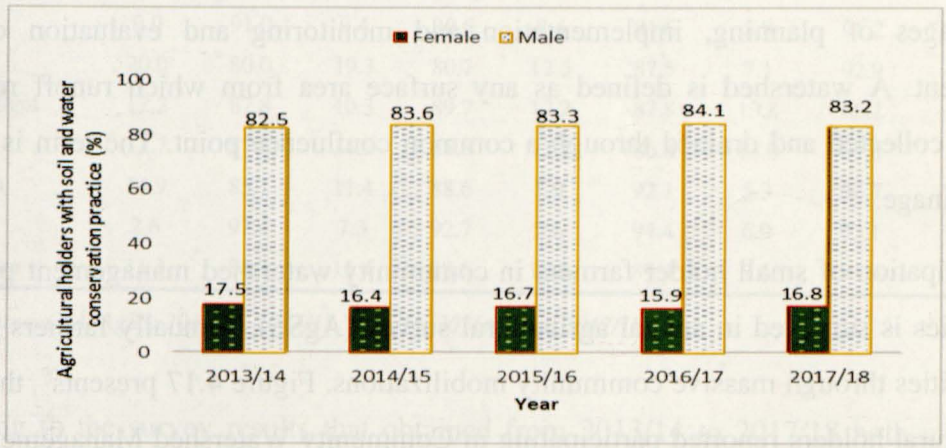
	2013/14		2014/15		2015/16		2016/17		2017/18	
Region	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
Country Total	13.2	86.8	12.4	87.6	12.0	88.0	12.4	87.6	12.4	87.6
Tigray	17.8	82.2	16.5	83.5	18.6	81.4	20.9	79.1	20.9	79.1
Afar	15.4	84.6	15.2	84.8	20.5	79.5	21.6	78.4	21.6	78.4
Amhara	11.5	88.5	11.2	88.8	11.6	88.4	11.7	88.3	11.7	88.3
Oromia	12.4	87.6	12.4	87.6	9.5	90.5	9.1	90.9	9.1	90.9
Somali	11.7	88.3	7.6	92.4	15.3	84.7	16.1	83.9	16.1	83.9
Benishangul-Gumuz	18.5	81.5	14.4	85.6	12.1	87.9	17.8	82.2	17.8	82.2
SNNP	16.2	83.8	13.5	86.5	12.2	87.8	10.6	89.4	10.6	89.4
Gambela	3.8	96.2	1.9	98.1	0.0	100.0	8.0	92.0	8.0	92.0
Harari	12.4	87.6	8.7	91.3	12.7	87.3	5.1	94.9	5.1	94.9
Dire Dawa	20.1	79.9	9.3	90.7	14.3	85.7	11.0	89.0	11.0	89.0

(Source, CSA, AgSS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

Soil and Water Conservation Practice

Farmers use different soil and water conservation measures on their agricultural land holding to minimize soil and nutrient loss by erosion. Figure 4-15 describes male and female agricultural holders with soil and water conservation practice of the country. The survey result shows that, during the last five years' soil and water conservation practice widely practiced by male as compared to female agricultural holders. Regarding females' agricultural holders, soil and water conservation practices is higher in the 2013/14 agricultural sample survey period then it was decreased and kept almost a constant trend from 2014/15 to 2017/18 surveys.

Figure 4-15: Distribution of agricultural holders with soil and water conservation practice by sex and survey years, country level



(Source, CSA, AgSS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

Table 4-14: Distribution of agricultural holders with soil and water conservation practice by sex, region and survey years

	2013/14		2014/15		2015/16		2016/17		2017/18	
Region	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
Country Total	17.5	82.5	16.4	83.6	16.7	83.3	15.9	84.1	16.8	83.2
Tigray	24.2	75.8	22.9	77.1	23.8	76.2	23.4	76.6	24.2	75.8
Afar	17.3	82.7	9.0	91.0	13.2	86.8	31.6	68.4	2.7	97.3
Amhara	16.5	83.5	15.2	84.8	15.8	84.2	16.2	83.8	16.2	83.8
Oromia	15.8	84.2	15.1	84.9	14.9	85.1	14.1	85.9	14.8	85.2
Somali	19.9	80.1	10.1	89.9	12.4	87.6	9.8	90.2	10.3	89.7
Benishangul-Gumuz	15.7	84.3	13.4	86.6	14.3	85.7	18.9	81.1	18.6	81.4
SNNP	21.0	79.0	20.2	79.8	20.0	80.0	17.4	82.6	20.7	79.3
Gambela	6.2	93.8	6.7	93.3	7.2	92.8	8.8	91.2	4.2	95.8
Harari	13.8	86.2	16.8	83.2	15.2	84.8	11.2	88.8	14.9	85.1
Dire Dawa	15.1	84.9	10.8	89.2	15.5	84.5	11.8	88.2	12.9	87.1

(Source, CSA, AgSS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

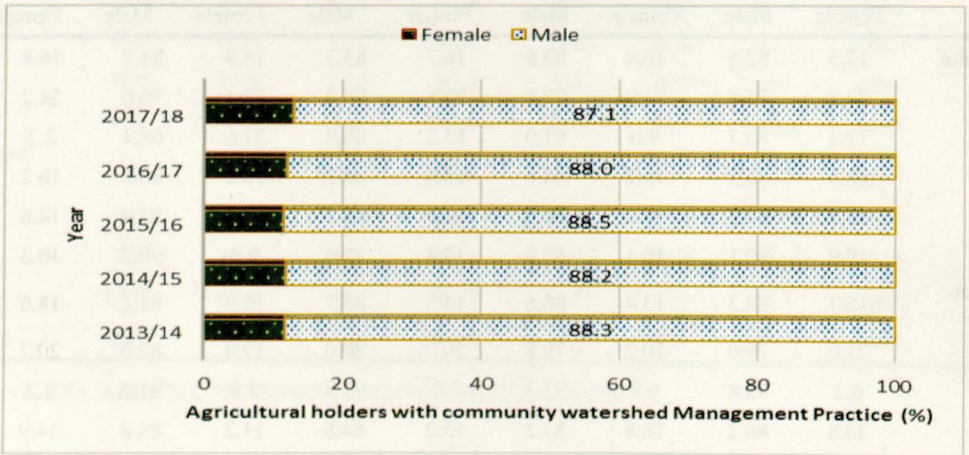
At the regional level soil and water conservation practices are most widely used by male than female. With regard to female small holders, large proportion of average annual soil and water conservation practices observed in Tigray region (23.7%) during the last five years. On the other hands the lowest average annual soil and water conservation practices by females is observed in Gambela region (6.6%).

Participation in Community Watershed Management Practices

Watershed management is an approach that uses collective action by a group of people reliant on a watershed area to proactively manage the resources and natural community assets within the area. **Community watershed management** is the involvement of communities and households in the stages of planning, implementation and monitoring and evaluation of watershed development. A watershed is defined as any surface area from which runoff resulting from rainfall is collected and drained through a common confluence point. The term is synonymous with a drainage.

The participation of small holder farmers in community watershed management practice in the communities is surveyed in annual agricultural survey (AgSS). Annually farmers participate in such activities through massive community mobilizations. Figure 4.17 presents the distribution of agricultural holders reported participating in Community Watershed Management Practice in their community by Sex of holders and years at national level.

Figure 4-16: Distribution of agricultural holders with community watershed management practice participation by sex and years, Country level



(Source, CSA, AgSS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

Based on the annual Agricultural Sample Surveys results, the participation of male small holder in community watershed management practices much higher than their female counterpart

(Figure 4-16). Over the last five years the participation of female in community watershed management practice shows slight fluctuating trends. High proportion of female participation in community watershed management practice observed in the recent survey of 2017/18 (12.9%).

Table 4-15: Distribution of agricultural holders with community watershed management practice participation by sex, region and years

Region	2013/14		2014/15		2015/16		2016/17		2017/18	
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
Country Total	11.7	88.3	11.8	88.2	11.5	88.5	12.0	88.0	12.9	87.1
Tigray	20.7	79.3	19.4	80.6	20.5	79.5	20.7	79.3	20.2	79.8
Afar	31.1	68.9	13.0	87.0	9.6	90.4	34.5	65.5	10.6	89.4
Amhara	12.1	87.9	11.1	88.9	11.8	88.2	12.1	87.9	12.4	87.6
Oromia	9.0	91.0	9.4	90.6	8.4	91.6	8.8	91.2	10.1	89.9
Somali	20.0	80.0	19.3	80.7	12.5	87.5	7.1	92.9	0.0	100.0
Benishangul	12.2	87.8	10.3	89.7	12.2	87.8	13.8	86.2	13.6	86.4
SNNP	12.7	87.3	14.2	85.8	13.2	86.8	13.0	87.0	16.7	83.3
Gambela	14.9	85.1	11.4	88.6	7.9	92.1	5.3	94.7	9.1	90.9
Harari	2.6	97.4	7.3	92.7	5.6	94.4	6.9	93.1	9.4	90.6
Dire Dawa	11.3	88.7	11.4	88.6	10.6	89.4	8.6	91.4	12.2	87.8

(Source, CSA, AgSS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

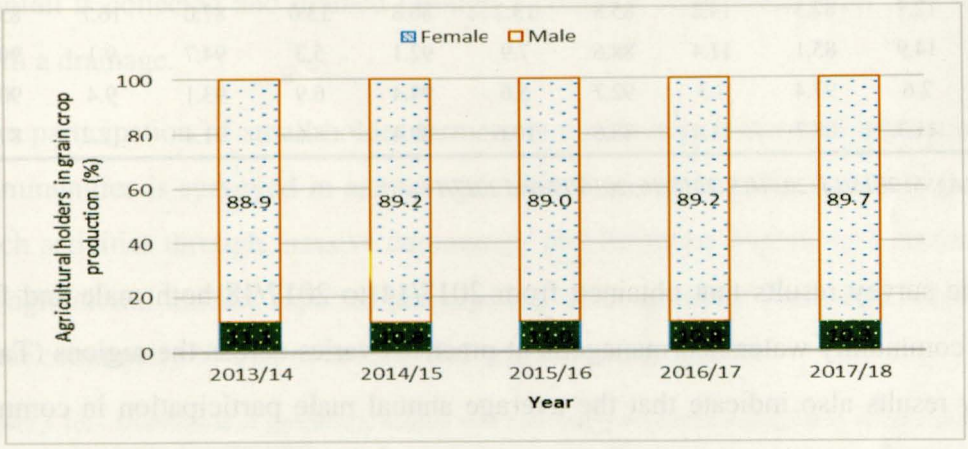
According to the survey results that obtained from 2013/14 to 2017/18 both male and female participation in community watershed management practices varies across the regions (Table 4-15). The survey results also indicate that the average annual male participation in community watershed management practices across all the regions much higher over the last five years as compared to female participation. Particularly, the dominant proportion of male participation in community watershed management practices observed in Harari region. The average annual participation of male in this region is about 96.3 % whereas the average annual participation of female is only about 6.4 %. Regarding female, the highest average annual participation of female in community watershed management practices observed in Tigray (20.3%) and Afar regions (19.8%), followed by SNNP (14%).

4.4. Crop Production

Grain Crop Production

Grain crop production accounted more than half of the annual agricultural production in Ethiopia. The majority of these crops are produced by private small holder farmers. Figure 4-17 presents the percentage distribution of agricultural holders producing grain crops by sex for the last five years. According to the survey result, about 11% of the agricultural holders who report produced grain crops are found female agricultural holders. About 89% of the agricultural holders produced grain crops are male agricultural holders. Looking the trend of the grain crop producing agricultural holders a constant percentage share of participation of both sexes are observed.

Figure 4-17: Percentage distribution of agricultural holders in grain crop production by Sex of holders, and survey years, country level



(Source, CSA, AgSS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

Table 4-16 shows the regional distribution of agricultural holders growing grain crops by sex from 2013/14 to 2017/18. The result indicates that a higher percentage of female agricultural holders growing grain crops in Gambela region (18.8%), followed by SNNP (15.9%) and Afar (13%). Equal average percentage participation of female is found in Oromia and Harari regions (11.5%). The lowest average percentage of female agricultural holders are found in Amhara region (8.1%).

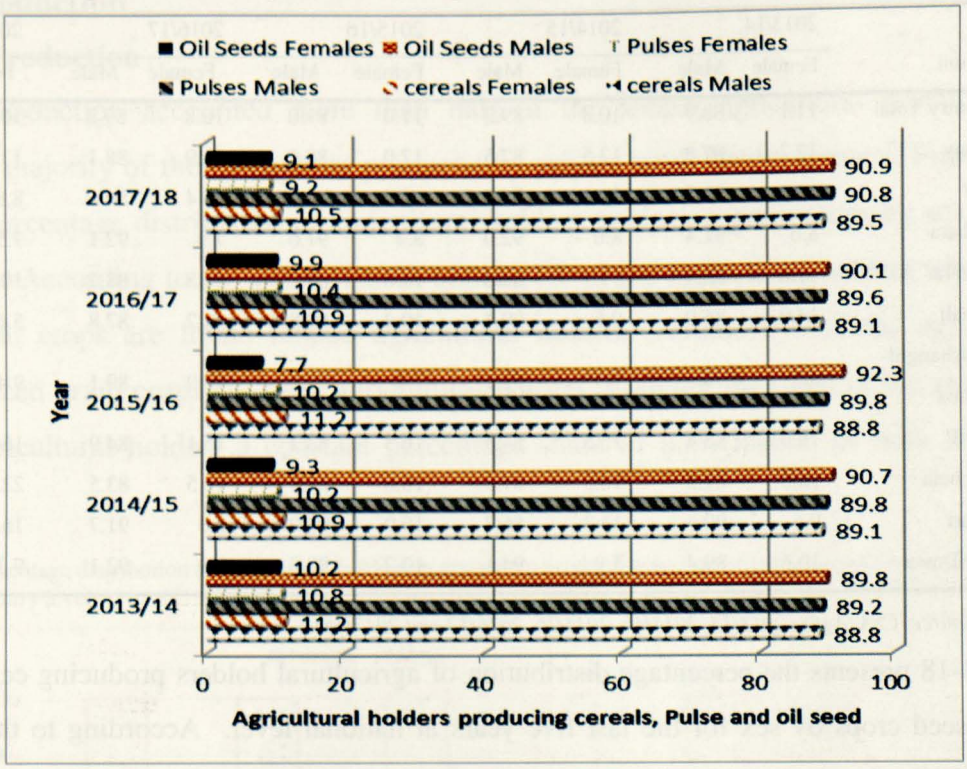
Table 4-16: Percentage Distribution of agricultural holders in grain crop production by sex of holders, region and survey years

Region	2013/14		2014/15		2015/16		2016/17		2017/18	
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
Country Total	11.1	88.9	10.8	89.2	11.0	89.0	10.8	89.2	10.3	89.7
Tigray	12.2	87.8	12.5	87.5	12.0	88.0	11.9	88.1	13.5	86.5
Afar	10.8	89.2	11.6	88.4	18.4	81.6	15.4	84.6	8.8	91.2
Amhara	8.6	91.4	8.0	92.0	8.4	91.6	7.9	92.1	7.5	92.5
Oromia	11.6	88.4	11.7	88.3	11.8	88.2	11.8	88.2	10.8	89.2
Somali	14.0	86.0	9.6	90.4	10.2	89.8	12.2	87.8	5.6	94.4
Benishangul-Gumuz	9.5	90.5	7.9	92.1	7.4	92.6	10.9	89.1	9.4	90.6
SNNP	16.6	83.4	15.5	84.5	16.3	83.7	15.1	84.9	16.1	83.9
Gambela	18.5	81.5	18.5	81.5	18.6	81.4	16.5	83.5	22.1	77.9
Harari	9.6	90.4	13.3	86.7	10.0	90.0	8.3	91.7	16.2	83.8
Dire Dawa	10.6	89.4	5.9	94.1	10.2	89.8	7.9	92.1	9.3	90.7

(Source, CSA, AgSS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

Figure 4-18 presents the percentage distribution of agricultural holders producing cereals, pulse and oil seed crops by sex for the last five years at national level. According to the result on average 89% of agricultural holders who produced cereals are male. The majority of agricultural holders that reported producing pulse and oil seeds are male, 89.9% and 90.8% for pulses and oils Seeds, respectively. Nationally a domination of male agricultural holders is observed in the production of cereals, pulses and oil seeds crop production.

Figure 4-18: Percentage distribution of agricultural holders producing cereals, pulse and oil seed crops by sex



(Source, CSA, AgSS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

The regional percentage distribution of agricultural holders producing cereals production for the last five years by sex of the holder are presented in Table 4-17. According to the survey result the overall share of female agricultural holders in the productions of cereals is much less than male across regions. The result indicates that a higher percentage of female agricultural holders growing cereals crops, on average, was found in SNNP (15.9 %) followed by Gambela region (15.2%). The lowest average percentage of female agricultural holders producing cereals are found in Amhara region (8.2%).

Table 4-17: Percentage distribution of agricultural production in cereals production by sex of holders, region and survey years

Region	2013/14		2014/15		2015/16		2016/17		2017/18	
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
Country Total	11.2	88.8	10.9	89.1	11.2	88.8	10.9	89.1	10.5	89.5
Tigray	12.3	87.7	12.6	87.4	12.2	87.8	11.9	88.1	13.6	86.4
Afar	10.8	89.2	11.6	88.4	18.5	81.5	15.5	84.5	8.9	91.1
Amhara	8.5	91.5	8.2	91.8	8.6	91.4	7.9	92.1	7.7	92.3
Oromia	11.8	88.2	11.7	88.3	12.0	88.0	11.9	88.1	11.0	89.0
Somali	13.7	86.3	9.8	90.2	10.1	89.9	12.4	87.6	5.3	94.7
Benishangul-Gumuz	9.4	90.6	8.5	91.5	7.3	92.7	10.9	89.1	10.1	89.9
SNNP	16.5	83.5	15.3	84.7	16.5	83.5	15.1	84.9	16.2	83.8
Gambela	18.5	81.5	18.6	81.4	18.7	81.3	16.6	83.4	22.1	77.9
Harari	9.4	90.6	13.5	86.5	10.3	89.7	8.9	91.1	15.0	85.0
Dire Dawa	10.7	89.3	5.8	94.2	9.9	90.1	8.1	91.9	9.3	90.7

(Source, CSA, AgSS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

Table 4.18 shows the regional percentage distribution of agricultural holders producing pulses by sex for the last five years. Regionally, SNNP (16.0%), Tigray (15.5%), and Somali (14.7%) accounted a little higher percentage of female, on average, in producing pulses than the other regions in their respective order. However, the regional distribution of female agricultural holders involved in producing pulses are much less than that of male agricultural holders.

Table 4-18: Percentage distribution of agricultural holders in pulses production by sex of holder, region and years

Region	2013/14		2014/15		2015/16		2016/17		2017/18	
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
Country Total	10.8	89.2	10.2	89.8	10.2	89.8	10.4	89.6	9.2	90.8
Tigray	15.5	84.5	13.4	86.6	14.6	85.4	15.5	84.5	18.4	81.6
Afar	0.0	100.0	0.0	100.0	0.0	100.0	0.0	100.0	-	-
Amhara	9.1	90.9	6.9	93.1	7.7	92.3	7.7	92.3	6.7	93.3
Oromia	10.7	89.3	11.0	89.0	10.7	89.3	10.7	89.3	9.4	90.6
Somali	12.3	87.7	29.0	71.0	13.5	86.5	0.0	100.0	18.9	81.1
Benishangul-Gumuz	8.6	91.4	4.9	95.1	9.0	91.0	10.6	89.4	4.7	95.3
SNNP	17.5	82.5	17.0	83.0	15.6	84.4	14.9	85.1	15.2	84.8
Gambela	11.5	88.5	8.2	91.8	5.0	95.0	17.6	82.4	8.2	91.8
Harari	11.0	89.0	1.8	98.2	0.0	100.0	0.0	100.0	0.0	100.0
Dire Dawa	8.7	91.3	6.8	93.2	15.9	84.1	2.3	97.7	13.7	86.3

(Source, CSA, AgSS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

Table 4.19 shows the regional percentage distribution of male and female agricultural holder involved in the production oilseed for the five survey years. As shown in the table on average a higher proportion of female agricultural holders involved in oilseed production are reported in Harari (11.5%) and Somali regions (11.4%), compared to other regions. No female agricultural holder was found in production of oilseed in Afar region.

Table 4-19: Percentage distribution of agricultural holders in oilseed production by Sex of holders, regions and survey year

Region	2013/14		2014/15		2015/16		2016/17		2017/18	
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
Country Total	10.2	89.8	9.3	90.7	7.7	92.3	9.9	90.1	9.1	90.9
Tigray	8.3	91.7	9.6	90.4	6.8	93.2	9.5	90.5	9.4	90.6
Afar	0.0	100.0	0.0	100.0	0.0	100.0	0	0	0.0	100.0
Amhara	9.9	90.1	7.9	92.1	7.0	93.0	7.1	92.9	6.3	93.7
Oromia	10.4	89.6	10.9	89.1	8.6	91.4	11.9	88.1	10.7	89.3
Somali	23.9	76.1	1.0	99.0	11.5	88.5	6.0	94.0	14.7	85.3
Benishangul-Gumuz	11.3	88.7	6.0	94.0	6.6	93.4	11.1	88.9	8.0	92.0
SNNP	6.4	93.6	7.4	92.6	6.6	93.4	8.5	91.5	14.3	85.7
Gambela	32.8	67.2	6.5	83.5	0.2	99.8	1.1	98.9	-	-
Harari	10.0	90.0	11.7	88.3	8.4	91.6	5.0	95.0	22.7	77.3
Dire Dawa	10.6	89.4	4.6	95.4	11.9	88.1	7.2	92.8	2.3	97.7

(Source, CSA, AgSS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

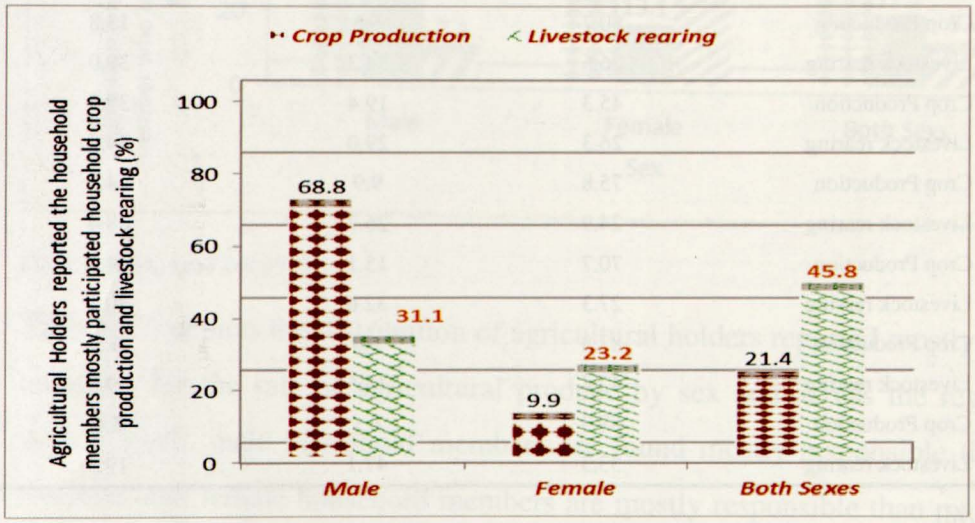
4.5. Women Participation in Agricultural Activities and Decision Making

The annual AgSS of CSA collects information directly related to gender on agricultural indicators, like household's time devotion on crop production and livestock rearing, sale of crop products, livestock and livestock products, and decision-making on the use of income from agricultural products, both at country and regional levels. The main objective of the gender section in annual Agss is to inform data users and policy makers on the participation of female in agricultural activities and decision making. The 2015/16 AgSS survey analyzes female participation in different agricultural activities in their households. During the survey each agricultural holder was asked to give his/her perceptions or thought by identifying their household member who is most responsible or participates in crop production, livestock rearing, purchasing of agriculture inputs and sale of agriculture product.

Figure 4.19 shows the distribution of agricultural holders reported household member mostly responsible or participate in crop production and livestock rearing activities of the households. At national level, 68.8% of the agricultural holders reported that males mostly responsible for the household crop production activity. While 21% of the respondents replied that both sexes (female and male) jointly participate in crop production in their household, only 9.9 percent of the respondent reported female are mostly participated in crop production in their households.

Furthermore, the survey reveals that household's livestock rearing activity were reported that (about 46%) jointly performed by both sexes (female and male household members). About 31.1 percent of the respondent answered, male is mostly responsible for livestock rearing activities in their households. Females' role in livestock rearing activity are reported by 23.2 percent of the surveyed agricultural holders.

Figure 4-19: Percentage distribution of agricultural holders reported household members mostly participated household crop production and livestock rearing by sex, main season 2015/16



(Source, CSA, AgSS, 2015/16)

Table 4.20 summarizes the percentage distribution of agricultural holders reported the household members mostly participated household crop production and livestock rearing by sex of the household member, agricultural type and region, 2015/16. According to the survey result for most of the regions, it is observed that male is mostly responsible for the crop production activities. While for the livestock rearing, most of the agricultural holders responded both male and female household members were jointly participated. The result at regional level were found consistent to the result at national level. It is revealed that, the absence of much difference

between female and male household members on the contribution of livestock rearing agricultural activities (Table 4.20).

Table 4-20: Percentage distribution of agricultural holders reported the household members mostly participated household in crop production and livestock rearing by sex, agricultural type and region, 2015/16

Region	Agriculture Activity	Household Members		
		Male	Female	Both Sexes/Jointly
Country Total	Crop Production	68.8	9.9	21.4
	Livestock rearing	31.1	23.2	45.8
Tigray	Crop Production	54.0	19.0	27.1
	Livestock rearing	36.9	26.0	37.2
Afar	Crop Production	82.1	7.8	10.2
	Livestock rearing	48.9	24.2	26.9
Amhara	Crop Production	63.3	10.2	26.5
	Livestock rearing	35.6	17.5	46.9
Oromia	Crop Production	69.9	8.0	22.2
	Livestock rearing	31.6	23.7	44.7
Somali	Crop Production	80.7	5.6	13.8
	Livestock rearing	26.6	34.3	39.0
Benshangul-Gumuz	Crop Production	45.3	19.4	35.3
	Livestock rearing	26.3	29.0	44.7
SNNP	Crop Production	75.8	9.9	14.3
	Livestock rearing	24.9	26.7	48.4
Gambela	Crop Production	70.7	15.1	14.1
	Livestock rearing	27.3	32.6	40.1
Harari	Crop Production	87.8	5.9	6.3
	Livestock rearing	42.4	18.5	39.0
Dire Dawa	Crop Production	88.3	6.1	5.6
	Livestock rearing	33.3	47.1	19.5

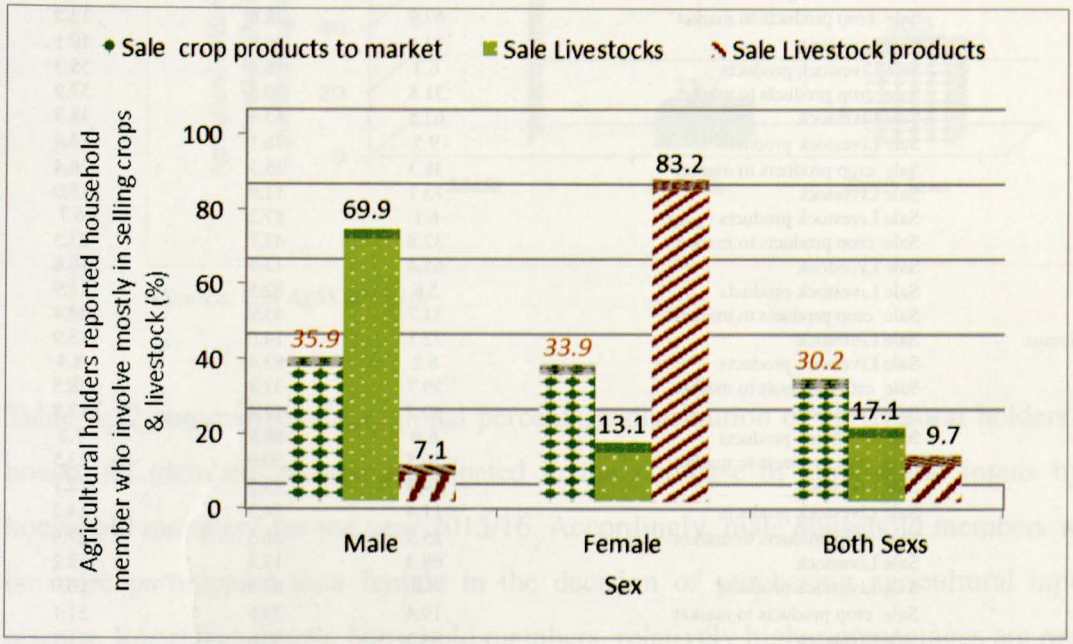
(Source: CSA AgSS 2015/16)

Sale of agricultural produce

Figure 4.21 describes the percentage distribution of agricultural holders that reported household members mostly decides on the sale of household crop and livestock by sex of the household member, at national level during 2015/16 production years. The survey result shows that 35.9%, 33.9% and 30.2% of agricultural holders respond that the sale of crop produce in their household is mainly the responsibility of male, female and both (male & female) household members, respectively. These shows that the absence of much difference in the role that male and female household members play in sale of crop in the market. However, from the result of the survey

about 70 % of the respondent replied that the decision on sale of live animals is mainly the task of male household members. The survey also revealed that 83% of the respondents answered the decision on the sale of livestock products is mainly the role of female household members in their household.

Figure 4-20: Percentage distribution of agricultural holders reported household member who involve mostly in selling crops & livestock, 2015/16



(Source: CSA, AgSS 2015/16)

Table 4-21 depicts the distribution of agricultural holders reported mostly responsible household members for the sale of agricultural produce by sex and across the region. According to the survey result, male household members are found mostly responsible than female for sale of livestock and female household members are mostly responsible than male for sale of livestock products across all regions. With respect to sale of crop products, while male household members are mostly responsible than female in Afar, Oromia and SNNP regions, female household members are found to be mostly responsible than males in Tigray, Somali, Benshangul- Gumuz, Gambela, Harari and Dire Dawa.

Table 4-21: Percentage distribution of agricultural holders reported responsible mostly household members for the sale of agricultural produce by sex and region , 2015/16

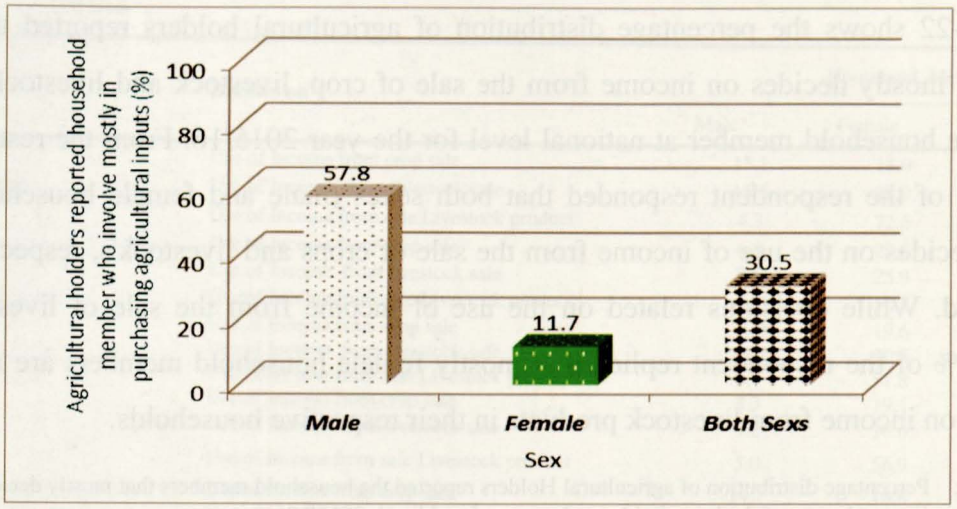
Region	Decision on	Household Members		
		Male	Female	Both Sexes/Jointly
Tigray	Sale crop products to market	35.9	33.9	30.2
	Sale Livestock	69.9	13.1	17.1
	Sale Livestock products	7.1	83.2	9.7
Afar	Sale crop products to market	20.8	49.8	29.4
	Sale Livestock	60.0	20.5	19.5
	Sale Livestock products	8.1	73.0	18.8
Amhara	Sale crop products to market	67.9	18.6	13.5
	Sale Livestock	73.1	16.8	10.1
	Sale Livestock products	6.3	58.4	35.3
Oromia	Sale crop products to market	31.8	30.3	37.9
	Sale Livestock	67.8	13.4	18.8
	Sale Livestock products	9.5	76.1	14.4
Somali	Sale crop products to market	38.3	35.3	26.4
	Sale Livestock	73.1	11.9	15.0
	Sale Livestock products	6.1	87.2	6.7
Benshangul- Gumuz	Sale crop products to market	32.8	43.7	23.5
	Sale Livestock	65.4	17.9	16.6
	Sale Livestock products	5.6	82.5	11.9
SNNP	Sale crop products to market	31.7	43.9	24.4
	Sale Livestock	72.1	14.0	13.9
	Sale Livestock products	8.2	83.4	8.4
Gambela	Sale crop products to market	39.7	31.8	28.5
	Sale Livestock	69.7	12.4	17.8
	Sale Livestock products	6.0	86.8	7.2
Harari	Sale crop products to market	26.5	50.0	23.5
	Sale Livestock	54.3	23.5	22.1
	Sale Livestock products	11.4	74.3	14.2
Dire Dawa	Sale crop products to market	25.5	46.5	27.9
	Sale Livestock	68.3	13.4	18.2
	Sale Livestock products	4.3	84.8	10.9
	Sale crop products to market	19.4	29.5	51.1
	Sale Livestock	58.2	30.6	11.2
	Sale Livestock products	2.1	83.9	14.1

(Source: CSA AgSS 2015/16)

Decision on Purchasing Agricultural input

Figure 4-21 presents the percentage distribution of agricultural holders that reported household members mostly participated in purchasing agricultural inputs by sex of household member at national level. According to the result about 58% of the respondent reported that the purchase of agricultural inputs is the role of male household members. In another hand about 31% and 12 % of the respondent reported the purchasing of agricultural inputs is mainly the responsibility of both sexes (male and female household members) and females in their household, respectively.

Figure 4-21: Percentage distribution of agricultural holders reported household member who involve mostly in purchasing agricultural inputs, Country Level 2015/16



(Source: CSA AgSS 2015/16)

Table 4.22 summarizes the regional percentage distribution of agricultural holders reported the household members mostly participated in the purchase of agricultural inputs by sex of the household member for the year 2015/16. Accordingly, male household members were found to be more participated than female in the decision of purchasing agricultural input across all regions. Regarding female household members, relatively higher percentages are participated for the purchase of inputs in Dire Dawa (23.0 %) and Tigray (29.4 %).

Table 4-22: Percentage distribution of agricultural holders reported responsible household members for purchasing agricultural inputs by sex and region, 2015/16

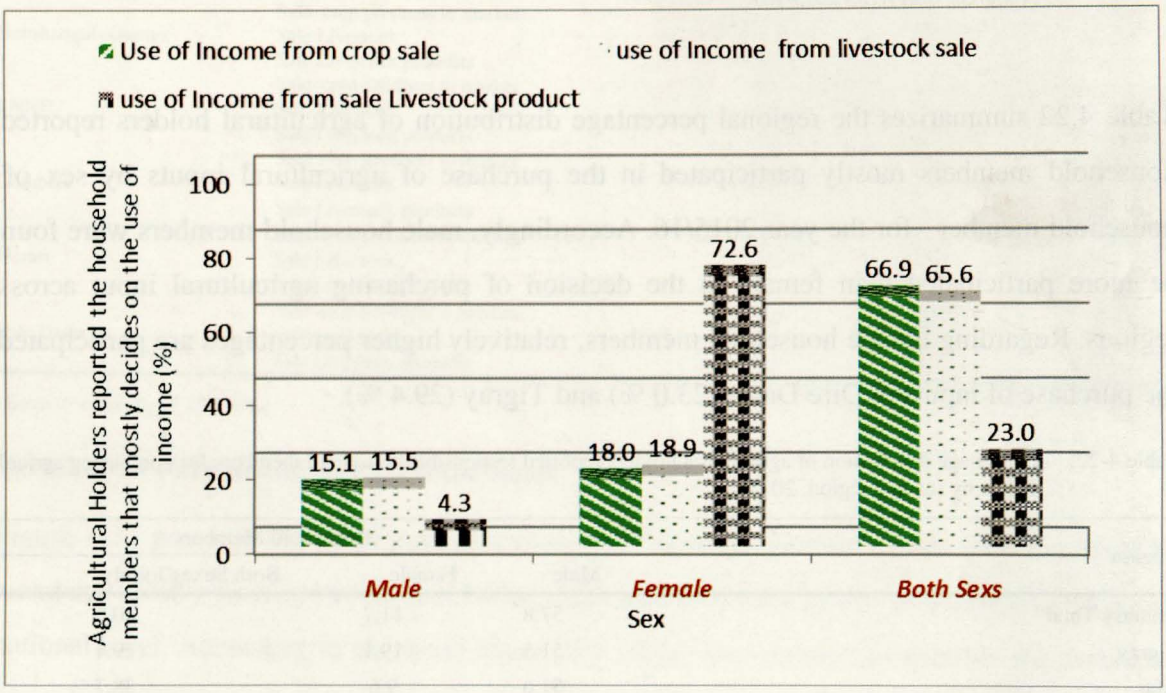
Region	Household Members		
	Male	Female	Both Sexes/Jointly
Country Total	57.8	11.7	30.5
Tigray	51.5	19.1	29.4
Afar	51.6	9.6	38.7
Amhara	55.6	11.4	33.0
Oromia	61.5	10.4	28.1
Somali	42.8	13.1	44.0
Benshangul- Gumuz	36.2	5.8	58.1
SNNP	57.7	12.5	29.9
Gambela	36.0	12.8	51.3
Harari	70.9	12.0	17.1
Dire Dawa	32.6	23.0	44.4

(Source: CSA, AgSS 2015/16)

Decision on the use of Income from agriculture

Figure 4-22 shows the percentage distribution of agricultural holders reported the household members mostly decides on income from the sale of crop, livestock and livestock products by sex of the household member at national level for the year 2015/16. From the result about 67% and 66% of the respondent responded that both sexes (male and female household members) jointly decides on the use of income from the sale of crops and livestock's, respectively in their household. While decisions related on the use of income from the sale of livestock product, about 73% of the respondent replied that mostly female household members are responsible in deciding on income from livestock products in their respective households.

Figure 4-22: Percentage distribution of agricultural Holders reported the household members that mostly decides on the use of income by sex of the household member at national level, 2015/16



(Source: CSA, AgSS 2015/16)

The regional distribution of agricultural holders reported the household members mostly decides on income from the sale of crop, livestock and livestock products by sex of the household member for 2015/16 survey year are presented in Table 4.23. According to the survey result, female household members are found mostly responsible than male for use of income from the sale of livestock products across all region. Whereas the decision on the use of income from sale of crops and livestock is dominated by both sexes (female and male household members jointly) across all regions.

Table 4-23: Percentage distribution of agricultural holders reported the household members that mostly decides on the use income from the sale of crop, livestock and livestock products by sex of the household member and region, 2015/16

Region	Decides on	Household Members		
		Male	Female	Both Sexes/Jointly
Country Total	Use of Income from crop sale	15.1	18.0	66.9
	Use of Income from livestock sale	15.5	18.9	65.6
	Use of Income from sale Livestock product	4.3	72.6	23.0
Tigray	Use of Income from crop sale	6.8	29.6	63.6
	Use of Income from livestock sale	9.6	25.9	64.5
	Use of Income from sale Livestock product	4.2	56.5	39.3
Afar	Use of Income from crop sale	31.3	19.6	49.1
	Use of Income from livestock sale	26.7	30.5	42.8
	Use of Income from sale Livestock product	4.7	51.8	43.5
Amhara	Use of Income from crop sale	8.3	19.1	72.6
	Use of Income from livestock sale	9.2	18.6	72.1
	Use of Income from sale Livestock product	5.0	56.9	38.1
Oromia	Use of Income from crop sale	14.1	16.8	69.1
	Use of Income from livestock sale	14.1	18.0	67.9
	Use of Income from sale Livestock product	3.4	81.6	15.1
Somali	Use of Income from crop sale	22.2	14.5	63.3
	Use of Income from livestock sale	33.6	21.2	45.1
	Use of Income from sale Livestock product	2.1	77.0	20.9
Benshangule-Gumze	Use of Income from crop sale	15.0	20.9	64.1
	Use of Income from livestock sale	16.4	18.8	64.8
	Use of Income from sale Livestock product	6.6	65.4	28.0
SNNP	Use of Income from crop sale	24.2	16.2	59.7
	Use of Income from livestock sale	23.9	18.7	57.4
	Use of Income from sale Livestock product	5.0	79.5	15.5
Gambela	Use of Income from crop sale	28.9	20.7	50.3
	Use of Income from livestock sale	28.0	20.5	51.5
	Use of Income from sale Livestock product	16.7	61.2	22.1
Harari	Use of Income from crop sale	14.9	12.3	72.8
	Use of Income from livestock sale	13.6	14.4	71.8
	Use of Income from sale Livestock product	2.7	82.0	15.1
Dire Dawa	Use of Income from crop sale	10.7	18.9	70.4
	Use of Income from livestock sale	14.5	30.0	55.5
	Use of Income from sale Livestock product	3.1	77.0	19.9

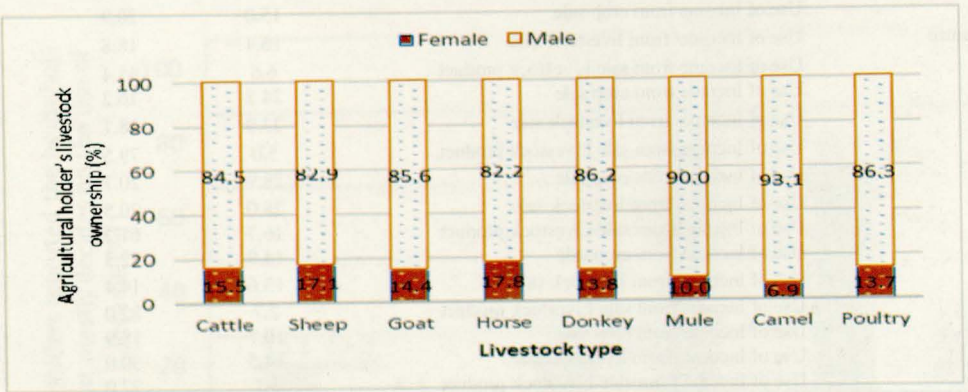
(Source: CSA AgSS 2015/16)

4.6. Livestock Production

Livestock is the most important capital asset of the rural people and contribute to the household's food security largely. They support and have a significant role in small holder agriculture directly and indirectly. Directly through contributing as a source of food to household members and provision drought power, and indirectly livestock support crop production through draft power and inorganic fertilizer supply.

Figure 4-23 presents the percentage distribution of agricultural holder's livestock ownership by sex of the holder and livestock type for 2011/12 survey year. According to the result of the survey male agricultural holders have more livestock than female across all the livestock categories. Female holdings of livestock are more observed for horses (17.8%) and sheep (17.1%) than camels (6.9%), in the same year.

Figure 4-23: Percentage distribution agricultural holder's livestock ownership by sex of agricultural holders, Country Total, ESS 2011/12



(Source, CSA, ESS,2011/12)

Table 4-24 presents the regional sex-disaggregated distribution of agricultural holder's livestock ownership for the year 2011/12. As indicated in the table regionally it is observed the high percentage ownership of male in holding livestock than female across all the regions.

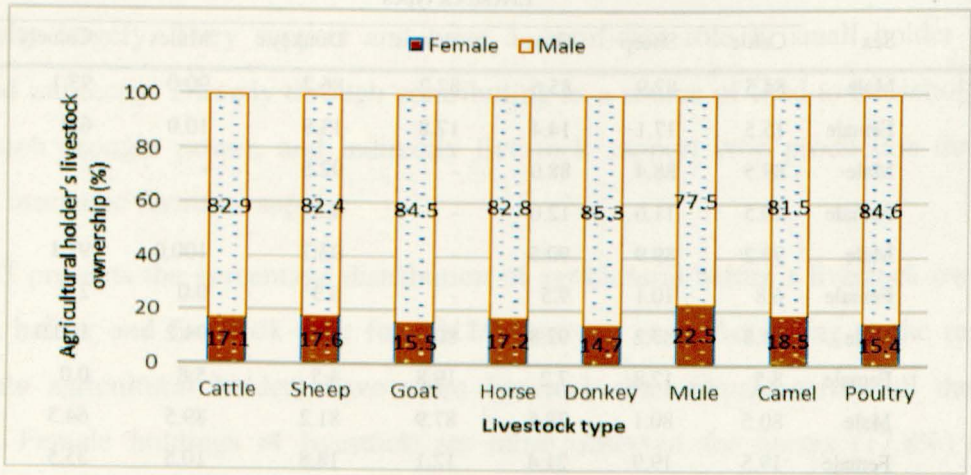
Table 4-24: Percentage distribution of agricultural holders livestock's ownership by type of livestock, Sex of agricultural holders and Region, ESS 2011/12

Region	Sex	Livestock types							
		Cattle	Sheep	Goats	Horses	Donkeys	Mules	Camels	Poultry
Country Total	Male	84.5	82.9	85.6	82.2	86.2	90.0	93.1	86.3
	Female	15.5	17.1	14.4	17.8	13.8	10.0	6.9	13.7
Tigray	Male	89.5	88.4	88.0	-	92.5	-	-	82.9
	Female	10.5	11.6	12.0	-	7.5	-	-	17.1
Afar	Male	93.2	89.9	90.5	-	93.7	100.0	97.1	67.5
	Female	6.8	10.1	9.5	-	6.3	0.0	2.9	32.5
Amhara	Male	91.5	87.2	92.8	80.2	95.5	94.2	100.0	89.0
	Female	8.5	12.8	7.2	19.8	4.5	5.8	0.0	11.0
Oromia	Male	80.5	80.1	78.6	87.9	81.2	89.5	64.5	86.0
	Female	19.5	19.9	21.4	12.1	18.8	10.5	35.5	14.0
Somali	Male	84.0	82.4	84.7	-	85.7	100.0	95.8	67.8
	Female	16.0	17.6	15.3	-	14.3	0.0	4.2	32.2
Benishangul-Gumuz	Male	94.8	91.8	88.4	-	100.0	-	-	94.9
	Female	5.2	8.2	11.6	-	0.0	-	-	5.1
S.N.N.P	Male	81.3	78.3	88.0	72.3	83.9	87.9	100.0	81.9
	Female	18.7	21.7	12.0	27.7	16.1	12.1	0.0	18.1
Gambella	Male	90.9	65.9	96.5	-	100.0	-	-	78.6
	Female	9.1	34.1	3.5	-	0.0	-	-!	21.4
Harari	Male	85.3	85.8	81.9	-	83.6	-	100.0	89.8
	Female	14.7	14.2	18.1	-	16.4	-	0.0	10.2
Dire Dawa	Male	86.4	90.8	89.6	-	91.5	-	96.8	91.1
	Female	13.6	9.2	10.4	-	8.5	-	3.2	8.9

(Source, CSA, ESS,2011/12)

Figure 4-24 presents the country level statistics by sex on the livestock of agricultural holders in the year 2013/14 at national level. Male agricultural holders have more livestock than female over all the livestock type categories. The survey reveals that more than 80% of the agricultural holder who owns a specific livestock type is male. A higher percent of female is observed among the agricultural holder who owns mules (22.5%) and Camels (18.5%).

Figure 4-24: Distribution of agricultural holders livestock's ownership by type of livestock and Sex of agricultural holders , Country Total, ESS 2013/14



(Source, CSA, ESS, 2013/14)

Table 4-25 presents the regional sex-disaggregated statistics on the distribution of agricultural holder's livestock ownership by type of livestock for the year 2013/14. According to the survey result male agricultural holder found to own more livestock in all livestock types than female across all regions. However, the share of females' livestock ownership varies across regions, more female are found holding mules in Somali (31.9%) and SNNP (21.1%), and camels in Oromia (36%). Females also found relatively maintain more goats (47.3%) and sheep (36.1%) in Gambela region.

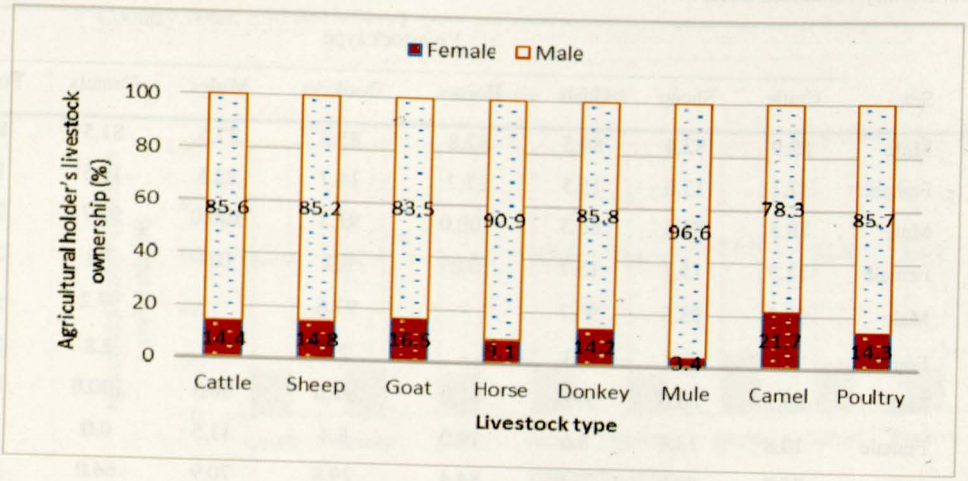
Table 4-25: Distribution of agricultural holders livestock ownership by type of livestock, Sex agricultural holders and Region, Country Total, ESS 2013/14

Region	Sex	Livestock type							
		Cattle	Sheep	Goats	Horses	Donkeys	Mules	Camels	Poultry
Country Total	Male	82.9	82.4	84.5	82.8	85.3	77.5	81.5	84.6
	Female	17.1	17.6	15.5	17.2	14.7	22.5	18.5	15.4
Tigray	Male	88.5	84.3	86.3	100.0	91.3	100.0	92.7	79.9
	Female	11.5	15.7	13.7	0.0	8.7	0.0	7.3	20.1
Afar	Male	93.3	93.5	93.7	-	97.6	-	97.2	40.3
	Female	6.7	6.5	6.3	-	2.4	-	2.8	59.7
Amhara	Male	89.2	86.6	91.4	81.0	91.6	88.5	100.0	85.0
	Female	10.8	13.4	8.6	19.0	8.4	11.5	0.0	15.0
Oromia	Male	77.7	80.8	78.0	84.4	79.8	70.9	64.0	84.6
	Female	22.3	19.2	22.0	15.6	20.2	29.1	36.0	15.4
Somali	Male	84.8	77.4	81.8	100.0	85.8	68.1	81.4	52.9
	Female	15.2	22.6	18.2	0.0	14.2	31.9	18.6	47.1
Benishangul-Gumuz	Male	91.6	94.8	92.0	100.0	100.0	100.0	100.0	88.6
SNNP	Female	8.4	5.2	8.0	0.0	0.0	0.0	0.0	11.4
	Male	84.2	78.7	91.6	78.8	88.3	78.9	100.0	88.4
	Female	15.8	21.3	8.4	21.2	11.7	21.1	0.0	11.6
Gambella	Male	72.7	63.9	52.7	-	-	-	-	82.1
	Female	27.3	36.1	47.3	-	-	-	-	17.9
Harari	Male	89.2	100.0	88.7	-	91.4	-	92.6	84.7
	Female	10.8	0.0	11.3	-	8.6	-	7.4	15.3
Addis Ababa	Male	0.0	0.0	-	-	-	-	-	-
	Female	100.0	100.0	-	-	-	-	-	-
Dire Dawa	Male	88.2	87.5	83.8	-	92.6	100.0	100.0	85.8
	Female	11.8	12.5	16.2	-	7.4	0.0	0.0	14.2

(Source, CSA, ESS,2013/14)

Figure 4-25 presents the country level statistics by sex on the livestock holders in the year 2015/16. From the survey results its observed that among male agricultural holders owns relatively higher mules, horses and goats are 96.6%, 90.9% and 78.3%, respectively than other livestock. On the other hand, a higher percentage of female holdings of livestock are observed for camels (21.7%) than the other livestock types for the 2015/16.

Figure 4-25: Distribution of agricultural holders' livestock ownership by type of livestock and Sex of agricultural holders, Country Total, ESS 2015/16



(Source, CSA, ESS, 2015/16)

Table 4-26 presents the regional sex-disaggregated statistics on the holders of livestock in the year 2015/16. The result shows compared to male, female agricultural holders found owning less livestock's for all type of livestock's in all regions. Compared to the other region more female are found holding sheep in Somali (20.8%), Tigray (19.3%) and Afar (19.2%) regions. Moreover, the percentage of female agricultural holders having goats are relatively higher in Dire Dawa (24.5 %), Oromia (22.8%) and Benishangul-Gumuz (20.8%). In Dire Dawa Administration, the poultry ownership by female agricultural holders is also commendable (34.3%) as compared to the other regions.

Table 4-26: Distribution of agricultural holders by type of livestock, Sex and Region, ESS 2015/16

Region	Sex	Livestock Type							
		Cattle	Sheep	Goats	Horses	Donkeys	Mules	Camels	Poultry
Country Total	Male	85.6	85.2	83.5	90.0	85.8	96.6	78.3	85.7
	Female	14.4	14.8	16.5	9.1	14.2	3.4	21.7	14.3
Tigray	Male	88.5	80.7	89.5	100.0	90.2	100.0	100.0	81.3
	Female	11.5	19.3	10.5	0.0	9.8	0.0	0.0	18.7
Afar	Male	82.0	80.8	84.2	100.0	82.6	100.0	83.2	81.1
	Female	18.0	19.2	15.8	0.0	17.4	0.0	16.8	18.9
Amhara	Male	89.7	88.4	91.3	93.8	90.2	94.0	93.1	88.4
	Female	10.3	11.6	8.7	6.2	9.8	6.0	6.9	11.6
Oromia	Male	82.9	86.4	77.2	89.9	84.1	100.0	47.2	85.3
	Female	17.1	13.6	22.8	10.1	15.9	0.0	52.8	14.7
Somali	Male	82.7	79.2	80.8	100.0	81.6	100.0	86.1	77.5
	Female	17.3	20.8	19.2	0.0	18.4	0.0	13.9	22.5
Benishangul-Gumuz	Male	91.1	100.0	79.2	-	92.6	100.0	-	92.3
	Female	8.9	0.0	20.8	-!	7.4	0.0	-	7.7
S.N.N.P	Male	86.3	81.1	89.9	89.8	82.0	96.3	100.0	84.9
	Female	13.7	18.9	10.1	10.2	18.0	3.7	0.0	15.1
Gambela	Male	90.2	100.0	96.5	100.0	-	100.0	-	83.4
	Female	9.8	0.0	3.5	0.0	-	0.0	-	16.6
Harari	Male	92.9	94.9	89.3	-	93.2	-	86.7	91.3
	Female	7.1	5.1	10.7	-	6.8	-	13.3	8.7
Addis Ababa	Male	-	-	-	-	-	-	-	-
	Female	-	-	-	-	-	-	-	-
Dire Dawa	Male	84.4	83.7	75.5	-	88.8	-	100.0	74.4
	Female	15.6	16.3	24.5	-	11.2	-	0.0	25.6

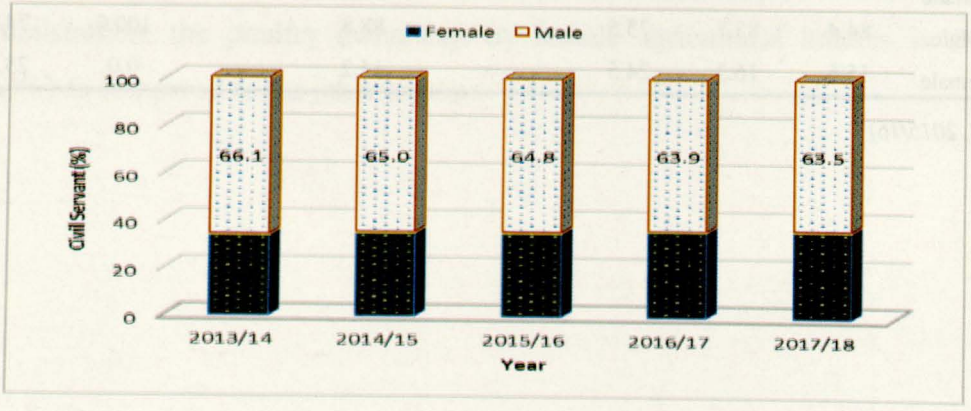
(Source, CSA, ESS, 2015/16)

5. Power and Decision Making

With respect to power and decision-making, one should understand that both women and men participate in political and/or public life in a number of ways. Their participation includes holding some position/office as political representative to exercising citizenship rights such as voting, and taking part in community and voluntary organizations. From decision-making perspective, holding leadership positions at different levels of government are mostly visible; those holding senior/managerial positions in a wide range of public and private sector organizations exercise power and influence in shaping society too. This section attempts to reveal women and men differences in the context of power and decision-making opportunities in political and public life. Data for this analysis are majorly obtained from administrative data base of various institutions like National Election Board, Federal Police, Federal Attorney, and Civil Services Commission.

Accordingly, Figure 5-1 presents the statistics of civil servants at country level by sex, for the last five years (2013/14 to 2017/18). With respect to the gender representation in the civil services, female reported to be less representing the country, as compared to their male counterpart, across the last five years. However, there appeared to be a consistently growing pattern (though minor) in their representation in civil services from 33.9% in 2013/14 to 36.5% in 2017/18.

Figure 5-1: Percentage of civil servant by sex and year, Country Level



(Source, CSC: 2013/14, 2014/15, 2015/16. 2016/17, 2017/18)

Table 5-1 depicts the regional statistics of civil servants by sex over the last five years (2013/14 to 2017/18). Accordingly, male as civil servants, though with varying patterns, is more compared to female across all the regions except in Addis Ababa City Administration in all reporting years. A gradually decreasing trend in male as civil servants, between 2013/14 and 2017/18, appeared in Tigray (60.9% to 56.3%), Amhara (63.3% to 60%), Oromia (69.2% to 66.4%), Somali (82.8% to 77.3%), SNNP (70.7% to 69.6%), Gambela (71.8% to 66.6%) regions and Addis Ababa (49% to 45.9%) City Administration. On contrary, female is observed to be commanding increasing share as civil servants in these regions, though remain less in numbers than male, during the same period. Moreover, in Addis Ababa City Administration alone the trend (over 50%) of female civil servants exceeding male in the last five years. In 2017/18 regions like Somali (22.7%), Afar (29.3%) and SNNP (30.4%) report less than one-third of female as civil servant.

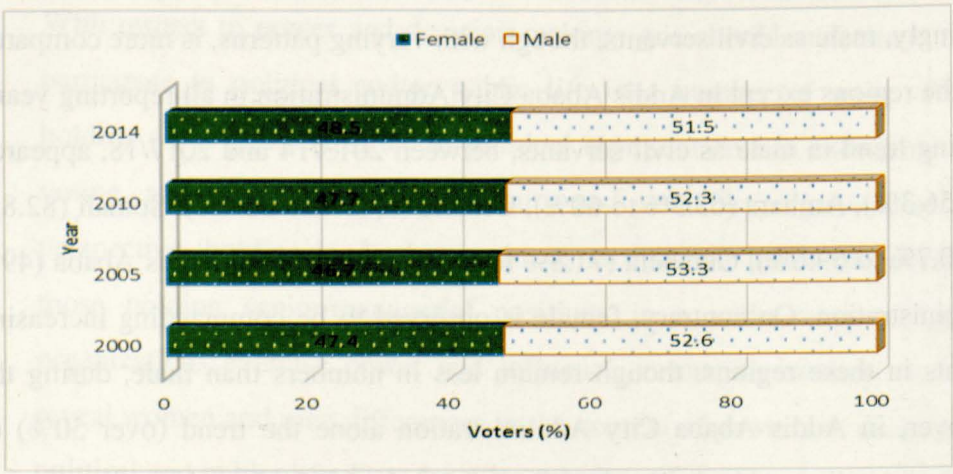
Table 5-1: Percentage of civil servant by sex, region and year

	2013/14		2014/15		2015/16		2016/17		2017/18	
Region	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
Country Total	33.9	66.1	35.0	65.0	35.2	64.8	36.1	63.9	36.5	63.5
Tigray	39.1	60.9	40.2	59.8	41.5	58.5	42.7	57.3	43.7	56.3
Afar	29.3	70.7	31.0	69.0	31.6	68.4	38.6	61.4	29.3	70.7
Amhara	36.7	63.3	37.8	62.2	38.1	61.9	39.1	60.9	40.0	60.0
Oromia	30.8	69.2	31.6	68.4	32.4	67.6	33.4	66.6	33.6	66.4
Somali	17.2	82.8	20.6	79.4	20.7	79.3	22.5	77.5	22.7	77.3
Benishangul-Gumuz	26.8	73.2	33.6	66.4	34.3	65.7	34.6	65.4	35.5	64.5
SNNP	29.3	70.7	29.3	70.7	29.4	70.6	29.7	70.3	30.4	69.6
Gambela	28.2	71.8	28.3	71.7	31.3	68.7	33.1	66.9	33.4	66.6
Harari	43.9	56.1	45.4	54.6	42.8	57.2	44.0	56.0	44.0	56.0
Addis Ababa	51.0	49.0	51.7	48.3	51.2	48.8	53.3	46.7	54.1	45.9
Dire Dawa	37.7	62.3	39.4	60.6	38.9	61.1	39.6	60.4	39.2	60.8

(Source, CSC: 2013/14, 2014/15, 2015/16. 2016/17, 2017/18)

Similar pattern has been witnessed with respect to both sexes participations in voting process across the reported (four) election years (2000, 2005, 2010 and 2014), however, female participation, as compared to male, in the voting process has been increased from 47.4% in the 2000 to 48.5% in 2014 (Figure 5-2).

Figure 5-2: Percentage of voters by sex and election year, Country Total



(Source, NEBE: 2000, 2005, 2010 and 2014)

Table 5-2 describes the percentage of voters participated across the regions by sex in the last four elections (2000, 2005, 2010 and 2014). Accordingly, female participation as registered voter increased gradually between the years 2000 and 2014 in Oromia region (45.8% to 47.7%), SNNP region (45.9% to 49.4%), and Dire Dawa Administration (46.9% to 49.7%). Moreover, female being voters (51.8%) exceeded male (48.2%) alone in Tigray region, across all the reported elections years, and reached close to male in SNNP region (49.4%) and Amhara region (49.3%), and Dire Dawa (49.7%) Administration in 2014 elections.

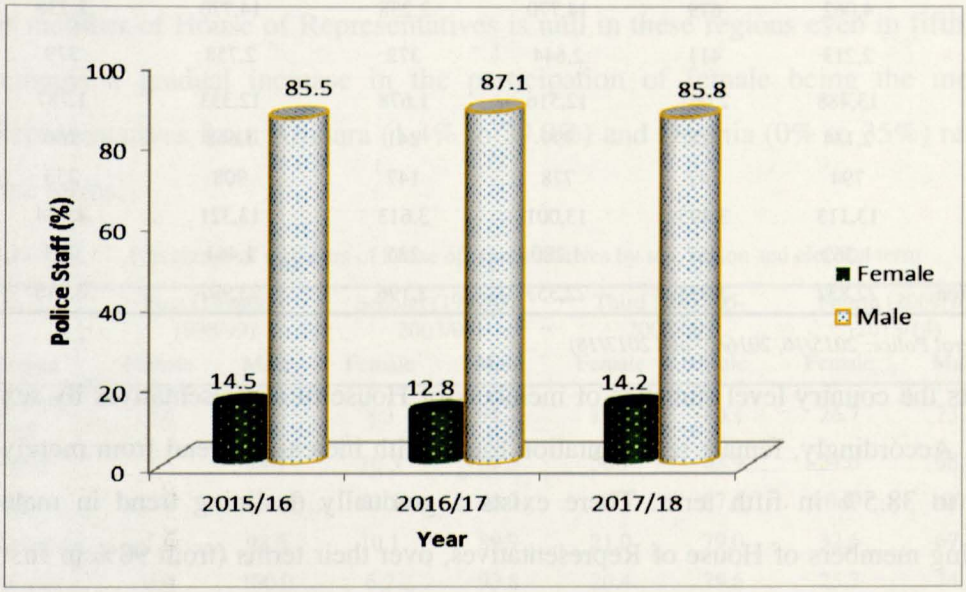
Table 5-2: Percentage of voters by sex, region and election year

	2000		2005		2010		2014	
Region	Female	Male	Female	Male	Female	Male	Female	Male
Country Total	47.4	52.6	46.7	53.3	47.7	52.3	48.5	51.5
Tigray	56.6	43.4	51.3	48.7	52.3	47.7	51.8	48.2
Afar	36.9	63.1	36.3	63.7	40.9	59.1	44.2	55.8
Amhara	49.2	50.8	48.2	51.8	48.7	51.3	49.3	50.7
Oromia	45.8	54.2	46.6	53.4	47.1	52.9	47.7	52.3
Somali	46.5	53.5	42.2	57.8	44.5	55.5	46.1	53.9
Benishangul-Gumuz	46.1	53.9	46.1	53.9	46.8	53.2	46.7	53.3
SNNP	45.9	54.1	46.9	53.1	49.2	50.8	49.4	50.6
Gambela	50.7	49.3	25.5	74.5	37.5	62.5	41.2	58.8
Harari	51.0	49.0	49.3	50.7	46.7	53.3	48.2	51.8
Addis Ababa	49.3	50.7	47.2	52.8	47.6	52.4	48.7	51.3
Dire Dawa	46.9	53.1	47.6	52.4	48.3	51.7	49.7	50.3

(Source, NEBE: 2000, 2005, 2010 and 2014)

Figure 5-3 illustrates the statistics of police staff at country level by sex, for the last three years (2015/16, 2016/17 and 2017/18). With respect to the gender representation in the police services/staff, female reported to be less representing the country, compared to male, over the reported years. Moreover, a minor decline in female representation as police staff is observed, being 14.5 % in 2015/16 to 14.2 % in 2017/18.

Figure 5-3: Percentage of police staff by sex and year, Country Level



(Source, Federal Police: 2015/16, 2016/17 and 2017/18)

Table 5-3 depicts the regional statistics of police staff by sex over the last three years (2015/16, 2016/17 and 2017/18). The country total includes both the police staffs in all regions and in Federal Police Commission. Accordingly, male representation as police staff, though with varying patterns, appeared to be much higher (as compared to female) across all the regions and reporting years. However, while a gradually increasing trend, between 2015/16 and 2017/18, in male representation is observed in Oromia (84.4% to 87.3%) and Benishangul-Gumuz (84.3% to 87.9%) regions, a declining trend is witnessed in male police staff in Addis Ababa City Administration (79% to 76.8%), and in Federal Police Commission (88.2% to 85.9%) during the same time period. On contrary, female police staff is observed increasing in these regions, though still remain less in numbers (below one-fourth) than male police staff, over the last three years (2015/16 to 2017/18).

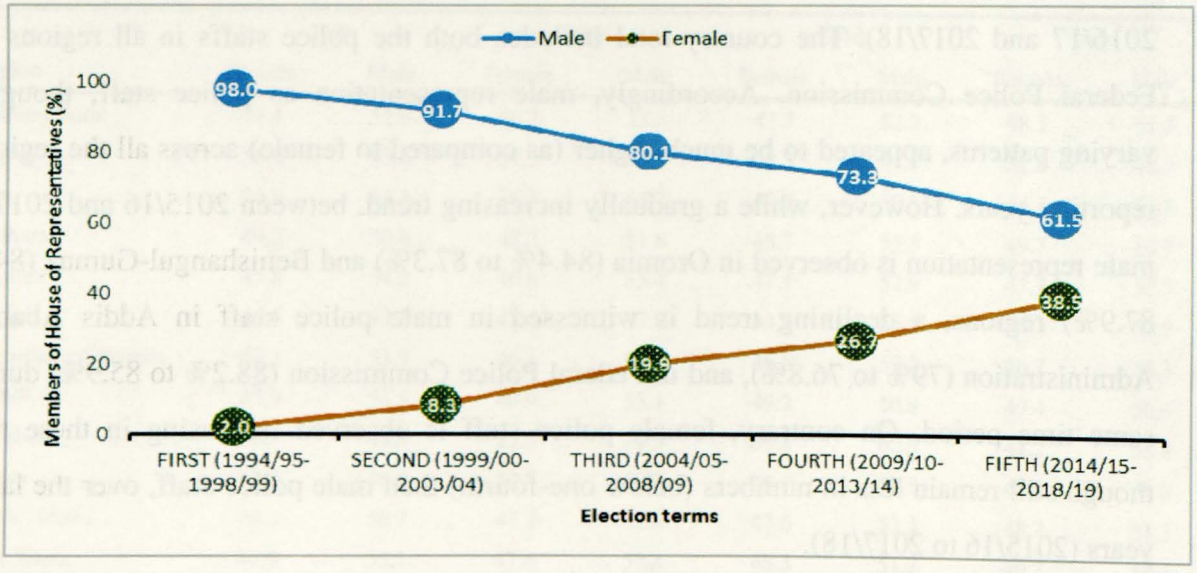
Table 5-3: Number of police staff by sex, region and year

Region	2015/16		2016/17		2017/18	
	Male	Female	Male	Female	Male	Female
Country Total	102,432	17,321	115,900	16,988	120,621	19,973
Tigray	3,984	644	4,719	730	5,081	791
Afar	3,266	271	4,105	221	4,123	236
Amhara	12,773	1,812	12,423	1,129	13,592	1,881
Oromia	22,411	4,158	26,512	3,188	26,609	3,867
Somali	4,062	679	14,770	2,238	14,770	2,238
Benishangul-Gumuz	2,213	411	2,644	372	2,758	379
SNNP	13,488	2,061	12,516	1,678	12,333	1,787
Gambela	2,134	328	799	241	1,668	266
Harari	794	147	778	147	908	253
Addis Ababa	13,113	3,495	13,001	3,613	13,321	4,034
Dire Dawa	1,362	257	1,280	235	1,461	293
Federal Police Commission	22,832	3,058	22,353	3,196	23,997	3,948

(Source, Federal Police: 2015/16, 2016/17 and 2017/18)

Figure 5-4 presents the country level statistics of members of House of Representatives by sex and election term. Accordingly, female representation found with increasing trend from merely 2% in first term to 38.5% in fifth term. There exists a gradually declining trend in male representation, being members of House of Representatives, over their terms (from 98% in first to 61.5% in fifth).

Figure 5-4: Percentage of members of house of representatives by sex & election term, Country Total



(Source: HPR)

Similarly, Table 5-4 displays the regional trends and member representation in the House of Representatives by sex and election term. Accordingly, corresponding data are found unavailable for the first and second terms for some regions like Afar, Somali, Benishangul-Gumuz, SNNP, Gambela and Addis Ababa City Administration. While in the first term, no female representation is observed from Oromia and Harari regions; others like Gambela, Harari and Addis Ababa city administration maintain similar trend in the fifth term too. In other words, female representation as member of House of Representatives is null in these regions even in fifth term. Though there remains a gradual increase in the participation of female being the member of House of Representatives from Amhara (1.4% to 39.9%) and Oromia (0% to 35%) regions, across all the five terms.

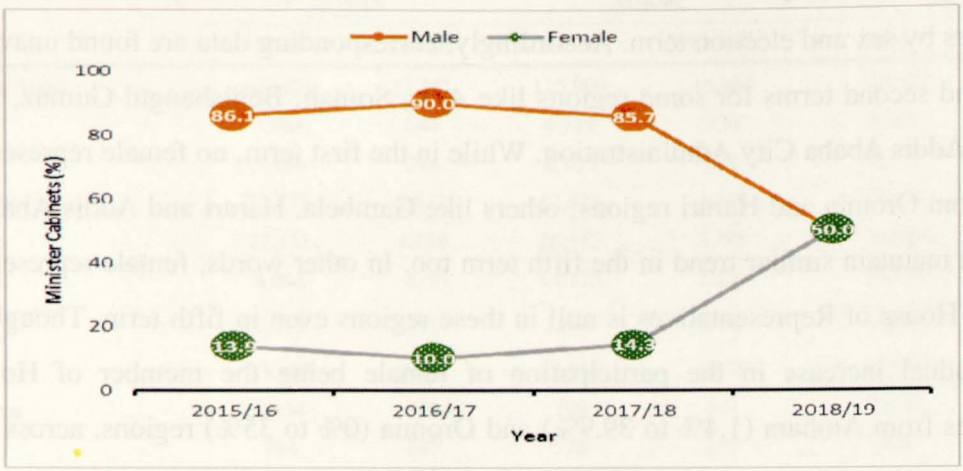
Table 5-4: Percentage of members of house of representatives by sex, region and election term

	First (1994/95-1998/99)		Second (1999/00-2003/04)		Third (2004/05-2008/09)		Fourth (2009/10-2013/14)		Fifth (2014/15-2018/19)	
Region	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
Country Total	2.0	98.0	8.3	91.7	19.9	80.1	26.7	73.3	38.5	61.5
Tigray	5.3	94.7	10.5	89.5	36.1	63.9	31.6	68.4	36.8	63.2
Afar	-	-	53.3	46.7	12.5	87.5	0.0	100.0	25.0	75.0
Amhara	1.4	98.6	10.1	89.9	21.0	79.0	32.6	67.4	39.9	60.1
Oromia	0.0	100.0	6.2	93.8	20.4	79.6	25.7	74.3	35.0	65.0
Somali	-	-	0.0	100.0	4.3	95.7	0.0	100.0	60.9	39.1
Benishangul-Gumuz	-	-	-	-	0.0	100.0	22.2	77.8	44.4	55.6
SNNP	-	-	4.8	95.2	22.3	77.7	28.5	71.5	40.7	59.3
Gambela	-	-	0.0	100.0	0.0	100.0	0.0	100.0	0.0	100.0
Harari	0.0	100.0	0.0	100.0	0.0	100.0	0.0	100.0	0.0	100.0
Addis Ababa	-	-	0.0	100.0	0.0	100.0	0.0	100.0	0.0	100.0
Dire Dawa	13.0	87.0	13.0	87.0	8.1	91.9	27.3	72.7	39.1	60.9

(Source: HPR)

Figure 5-5 shows the country level statistics of minister cabinets by gender from 2008 to 2010. Accordingly, female representation in minister cabinets increased from 13.9% in 2015/16 to 50 % by 2017/18. There exists a gradually declining trend in men representation in minister cabinets over the stated time (from 86.1% in 2015/16 to 50 % by 2017/18).

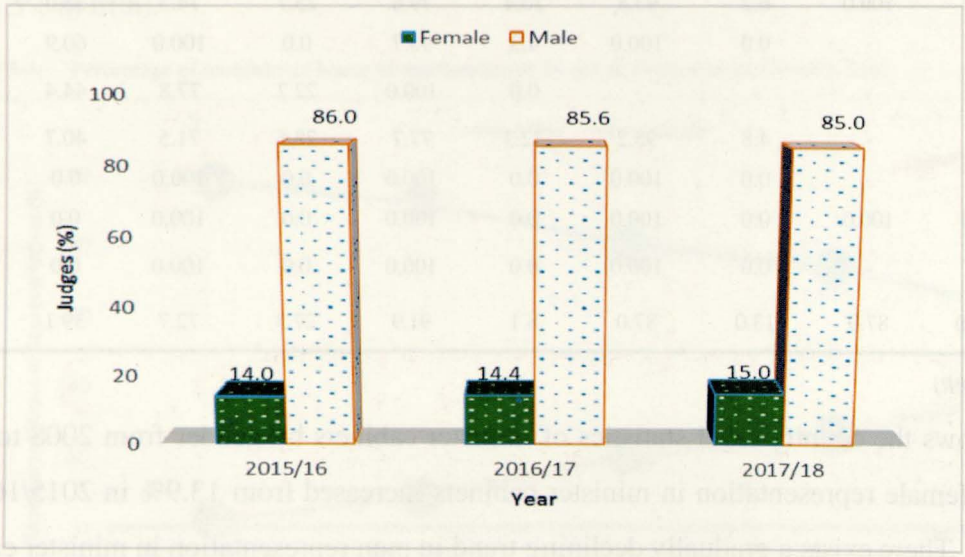
Figure 5-5: Percentage of minister cabinets by sex and year, Country Total



(Source: HPR)

Figure 5-6 describes the country level statistics for the judges by gender over the last three years (2015/16 to 2017/18). Accordingly, male is more than female in holding the position of judges in the Ethiopian courts, though a minor decline in their percentage is observed from 86% in 2015/16 to 85% in 2017/18. Opposite to this, women representation in the position of judge increased from 14% to 15% between 2015/16 and 2017/18.

Figure 5-6: Percentage of judges by sex and year, Country Total



(Source, Federal Supreme Court/Regions; 2015/16, 2016/17 and 2017/18)

Similarly, Table 5-5 highlights the sex-disaggregated statistics for judges in the country between 2015/16 and 2017/18 by region. The country total includes the judges in all regions and in Federal Supreme Court. Accordingly, female representation is majorly seen growing almost in every region. In 2017/18, Addis Ababa City Administration (40.4%) appeared to be a leading

other regions in female participation as judge. However, female representation as judge remained challenging/lower in the regions like Somali (4.6%), and Oromia (9.5%), as compared to men in 2017/18.

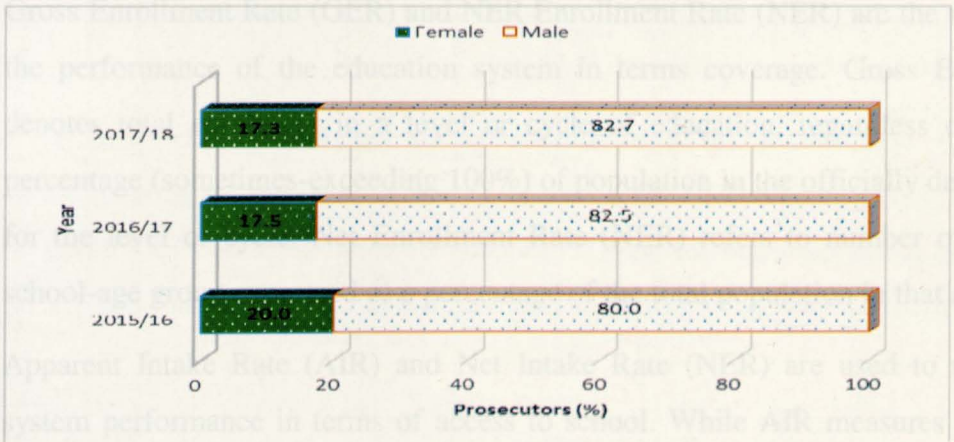
Table 5-5: Number of judges by sex, region and year

Region	2015/16		2016/17		2017/18	
	Female	Male	Female	Male	Female	Male
Country Total	744	4,555	859	5,094	931	5,291
Tigray	-	-	78	331	82	377
Afar	17	142	18	146	18	146
Amhara	353	1,239	341	1,176	356	1,249
Oromia	155	1,671	153	1,870	204	1,954
Somali	15	411	15	411	15	311
Benishangul-Gumuz	1	16	3	19	3	19
SNNP	98	784	108	790	114	878
Gambela	21	95	21	90	23	112
Harari	8	27	8	35	8	35
Addis Ababa	15	21	20	26	19	28
Dire Dawa	1	7	0	7	0	7
Federal Supreme Court	60	142	94	193	89	175

(Source, Federal Supreme Court/Regions; 2015/16, 2016/17 and 2017/18)

Figure 5-7 draws the country level statistics of prosecutors by gender from 2015/16 to 2017/18. Accordingly, women are less than men being prosecutors, there exists a gradually declining trend in women representation over the last three years (e.g., from 20% in 2015/16 to 17.3% in 2017/18).

Figure 5-7: Percentage of prosecutors by sex and year, Country Total



(Source, Federal Attorney/Regions; 2015/16, 2016/17 and 2017/18)

Table 5-6 illustrates the gender-disaggregated statistics for prosecutors in the country between 2015/16 and 2017/18 by region. The country total includes both prosecutors in all regions and in Attorney General. Accordingly, female representation as prosecutors increased by 2017/18, majorly, in Dire Dawa Administration (30%), Addis Ababa City Administration (27.1%), Tigray (25.1%), Harari (25%) and Benishangul-Gumuz (24%) regions, and remained lower in Somali (7.9%), Afar (8.9%), Oromia (11.8 %) and SNNP (13.9%) during the same year. However, there appeared to be a declining trend in women participation as prosecutors at Federal Attorney level in the last three years (between 2015/16 and 2017/18).

Table 5-6: Percentage of prosecutors by sex, region and year

	2015/16		2016/17		2017/18	
Region	Female	Male	Female	Male	Female	Male
Country Total	1,254	5,013	1,161	5,491	1,229	5,856
Tigray	109	324	92	336	107	319
Afar	12	88	16	124	13	133
Amhara	293	941	280	980	272	1,025
Oromia	327	1,588	278	1,760	263	1,963
Somali	22	399	27	482	31	360
Benishangul-Gumuz	35	110	35	105	36	114
SNNP	193	1,197	185	1,233	183	1,129
Gambela	16	64	16	64	-	-
Harari	14	34	14	34	13	39
Addis Ababa	-	-	-	-	89	240
Dire Dawa	3	8	3	8	3	7
Attorney General	230	260	215	365	219	527

(Source, Attorney General/Regions; 2015/16, 2016/17 and 2017/18)

6. Education

Education can be considered as an important domain that guides socio-economic development. The significance of the education can be seen as it influences one's attitudes and opportunities. Education associates itself with improving capability on one hand, and other socio-economic variables like income, value, lifestyle etc., on the other. In simple terms, education makes us what we are, and should be made available to the individuals as formal and affordable.

Education is at the center of the government's policies targeted at achieving middle income country status in the next decade. The education sector must provide capable citizens with core literacy and numeracy skills and with the middle- and higher-level capacities needed by the emerging productive sectors.

This chapter presents the analysis on gender differences with respect to educational attainment in education across different levels (primary, secondary, tertiary and TVET). An abstract dealing with large volume of gender disaggregated statistics of educational sector is published annually by the Ministry of Education (MoE) to understand trends across the above stated levels. For the purpose of analysis, data are obtained from MoE's EMIS datasets. The chapter presented education related gender indicators listed in UN minimum gender indicators, along with the gender indicators proposed in GTP and SDGs, and Ethiopia's Education Sustainable Development Plan.

6.1. Education Access and Coverage

Gross Enrollment Rate (GER) and NER Enrollment Rate (NER) are the two indicators to reveal the performance of the education system in terms coverage. Gross Enrollment Rate (GER) denotes total enrolment in a level or cycle of education, regardless of age, expressed as a percentage (sometimes-exceeding 100%) of population in the officially defined school-age group for the level or cycle. Net Enrollment Rate (NER) refers to number of pupils in the official school-age group expressed as a percentage of the total population in that age-group.

Apparent Intake Rate (AIR) and Net Intake Rate (NER) are used to measure the education system performance in terms of access to school. While AIR measures the percentage of new entrants (irrespective of the age) compared against the population of official school admission

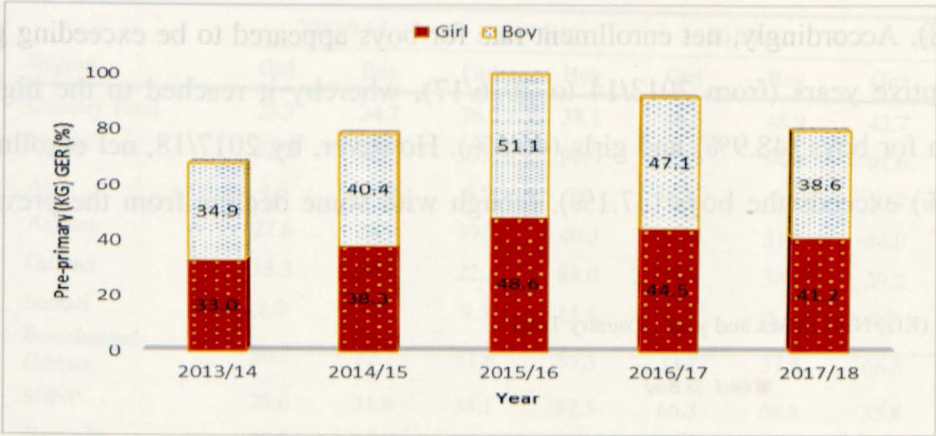
age (age of 7 in Ethiopia), NER only looks at those children who are of the correct age to enter grade 1.

This section highlights the gender analysis pertaining to country and regions for the education sector indicators like gross enrollment rate (total enrollment in a given year, expressed as a percentage of the official school-age population), net enrollment rate (ratio of official school-age children enrolled to the total population of children of official school-age), and apparent and net intake ratio, for pre-primary (KG), first-cycle (grade 1-4), second cycle (grade 5-8), secondary (grade 9-10) and preparatory (grade 11-12). For the purpose, gender-disaggregated data from the EMIS have been used.

Pre-school programs, known as pre-primary education, are delivered through three modalities in Ethiopia: Kindergarten, non-formal pre-school service and O-class. The first, kindergarten, are predominantly operated by non-governmental organizations (NGOs), communities, private institutions, and faith-based organizations. The second, non-formal pre-school service is being delivered mainly through child-to-child initiatives. The third is the most widespread response of local governments and that has been the setting up of O- class. O-Class is a one-year reception class (nine-month program) based in government primary schools for children aged 6 years, before formal schooling starts at age 7. The importance of early childhood care and education is articulated in the Education Sector Development Program (ESDP V). Early childhood care and education is one of the priorities for the education sector because it is one of the inputs to the overall improvement of the quality of education and may lead to the reduction of drop out and repetition rates in primary grades. Early childhood care and education also leads to higher enrolment in primary education, particularly for girls.

Accordingly, Figure 6-1 depicts the gross enrollment rate for pre-primary (KG) level by sex, over the last five years (2013/14 to 2017/18). The gross enrollment rate for girls in the pre-primary level remains lower than that for boys, consecutively for four years (from 2013/14 to 2016/17). However, by 2017/18 gross enrollment rate for girls (41.2%) exceeded that for boys (38.6%).

Figure 6-1: Pre-primary (KG) GER by sex and years, Country Total



(Source, MOE, EMIS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

Moreover, in order to understand the regional patterns regarding gross enrollment rates for pre-primary (KG), Table 6-1 presents the regional statistics by sex, for the last five years (2013/14 to 2017/18). In general, except for some regions and reporting years, one can see relatively higher enrollment of boys than girls in pre-primary (KG) level. However, an increasing trend has been observed in the pre-primary gross enrollment rate for both boys and girls between 2013/14 and 2017 /18, across all the regions, except in Addis Ababa city administrations and Dire Dawa administration. Moreover, during 2015/16, in the Tigray region, the gross enrollment rate for both sexes appeared to be over 100%.

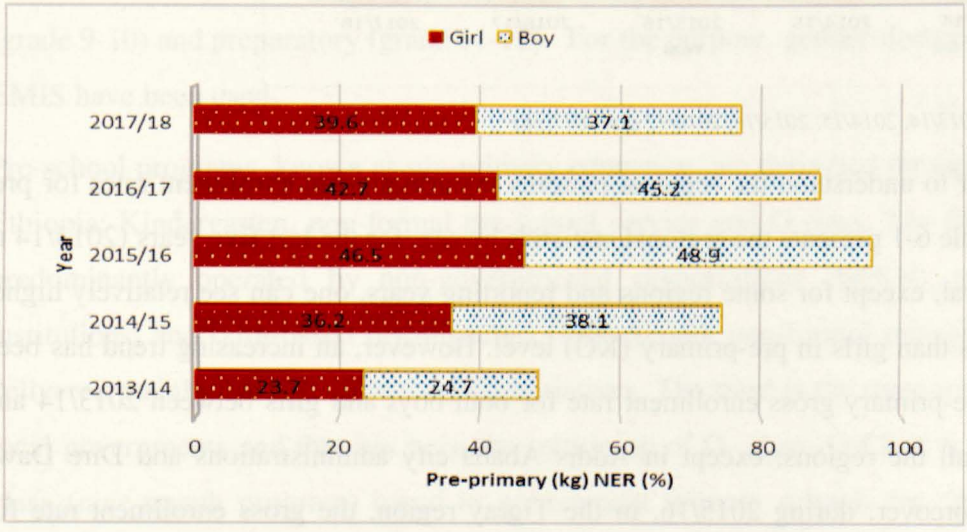
Table 6-1: Pre-primary (KG) GER by sex, region and years

	2013/14		2014/15		2015/16		2016/17		2017/18	
Region	Girl	Boy	Girl	Boy	Girl	Boy	Girl	Boy	Girl	Boy
Country Total	33.0	34.9	38.3	40.4	48.6	51.1	44.5	47.1	41.2	38.6
Tigray	78.3	81.2	99.3	98.5	101.0	102.5	92.9	93.5	86.7	87.0
Afar	5.0	4.9	7.9	8.8	8.3	7.8	11.7	11.8	12.0	16.5
Amhara	41.3	42.4	40.5	41.6	51.5	53.1	44.6	45.6	48.6	44.7
Oromia	19.2	20.5	23.4	25.4	36.7	40.1	30.5	33.3	30.8	28.4
Somali	3.8	4.4	11.2	13.6	4.9	5.8	7.0	7.8	4.0	4.9
Benishangul-Gumuz	26.8	30.4	55.0	59.1	34.6	38.5	69.6	74.9	41.2	36.8
SNNP	44.6	48.6	36.4	39.8	68.6	71.3	37.8	42.4	70.9	65.5
Gambela	17.5	17.8	24.8	25.8	51.4	57.6	25.0	26.8	41.9	40.9
Harari	73.7	76.7	80.3	86.3	79.7	84.8	88.4	91.9	88.9	87.4
Addis Ababa	93.8	96.8	88.6	91.5	91.8	96.2	91.4	93.4	91.8	95.4
Dire Dawa	42.4	45.7	35.4	37.5	40.6	41.1	53.2	54.5	44.2	42.0

(Source, MOE, EMIS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

Figure 6-2 reveals the net enrollment rate for the pre-primary (KG) by sex, for the last five years (2013/14 to 2017/18). Accordingly, net enrollment rate for boys appeared to be exceeding girls for the four consecutive years (from 2013/14 to 2016/17), whereby it reached to the highest during 2015/16 both for boys (48.9%) and girls (46.5%). However, by 2017/18, net enrollment rate for girls (39.6%) exceeds the boys (37.1%), though with some decline from the previous year.

Figure 6-2: Pre-primary (KG) NER by sex and years, Country Total



(Source, MOE, EMIS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

Table 6-2 highlights the gender-disaggregated statistics of pre-primary (KG) net enrollment rate for last five years (2013/14 to 2017/18). Consequently, there appeared to be relatively high net enrollment rate for boys as compared to girls in Tigray region and Addis Ababa city administration, for all the specified years. Moreover, increasing trend has been witnessed in the pre-primary net enrollment rate for both sexes between 2013/14 and 2017/18, across all the regions. The net enrollment rate, in 2015/16, has reached to the highest for both sexes in the Amhara, Oromia and Gambela regions.

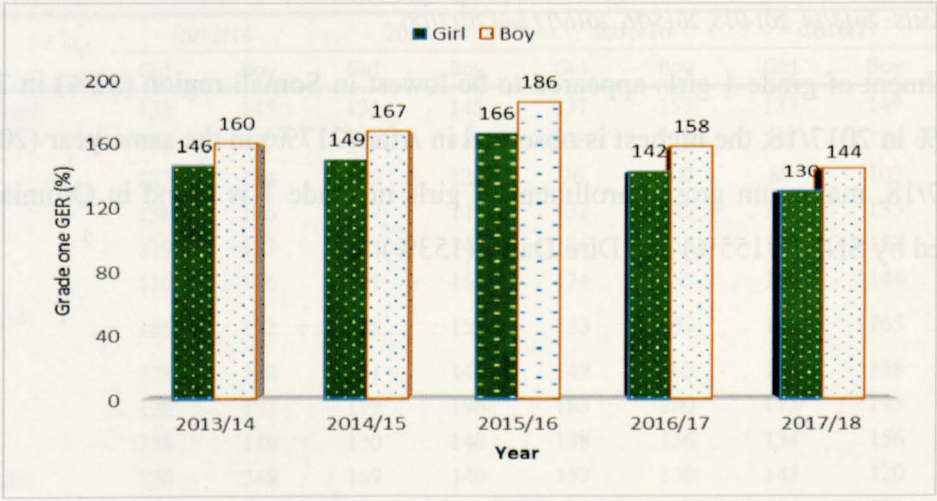
Table 6-2: Pre-primary (KG) NER by sex, region and years

Region	2013/14		2014/15		2015/16		2016/17		2017/18	
	Girl	Boy	Girl	Boy	Girl	Boy	Girl	Boy	Girl	Boy
Country Total	23.7	24.7	36.2	38.1	46.5	48.9	42.7	45.2	39.6	37.1
Tigray	62.2	63.3	97.8	96.9	92.9	94.4	91.6	92.3	85.5	85.7
Afar	4.8	4.2	6.9	7.3	6.8	7.3	10.7	10.7	10.7	15.2
Amhara	27.6	28.9	39.3	40.3	50.4	51.9	44.0	45.0	48.1	44.1
Oromia	13.3	14.1	22.1	24.0	35.4	38.5	29.2	32.0	29.4	27.2
Somali	1.2	1.1	9.5	11.4	4.7	5.6	4.7	5.1	2.7	3.3
Benishangul-Gumuz	20.7	22.7	51.8	55.5	33.7	37.5	66.8	71.7	39.6	35.5
SNNP	29.0	31.8	34.1	37.5	66.3	68.8	35.8	40.3	68.5	63.2
Gambela	22.3	22.7	24.6	25.5	40.6	42.7	21.3	22.8	36.2	35.0
Harari	51.4	60.6	71.1	75.6	69.0	74.9	78.4	83.0	79.2	76.5
Addis Ababa	94.4	102.4	72.4	75.0	77.8	81.1	79.7	81.7	81.1	84.0
Dire Dawa	29.0	29.0	29.7	32.1	35.0	35.2	45.3	46.9	37.2	35.0

(Source, MOE, EMIS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

Figure 6-3 exhibits the gross enrollment rate for grade 1 by sex over the last five years (2013/14 to 2017/18), as taken from the EMIS. Thus, gross enrollment rate in grade 1 is appeared to be over 100% (and reaching to the top in 2015/16) for both sexes, for boys' it is more than that of girls, across all the years. In other words, girls' enrollment in grade 1 is less as compared to boys.

Figure 6-3: Grade 1 gross enrolment rate (%) by sex and years, Country Total



(Source, MOE, EMIS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

With respect to sex-disaggregated gross enrollment rate by region over the last five years (2013/14 to 2017/18), statistics from Table 6-3 reveals that relatively more boys are enrolled in grade 1 than girls across the regions except in Addis Ababa City Administration and time period. However, a gradual declining trend has been seen in the grade 1 gross enrollment rate for girls (compared to boys), between 2013/14 and 2017/18, in Afar (217% to 55%) and Amhara (146% to 104%) regions.

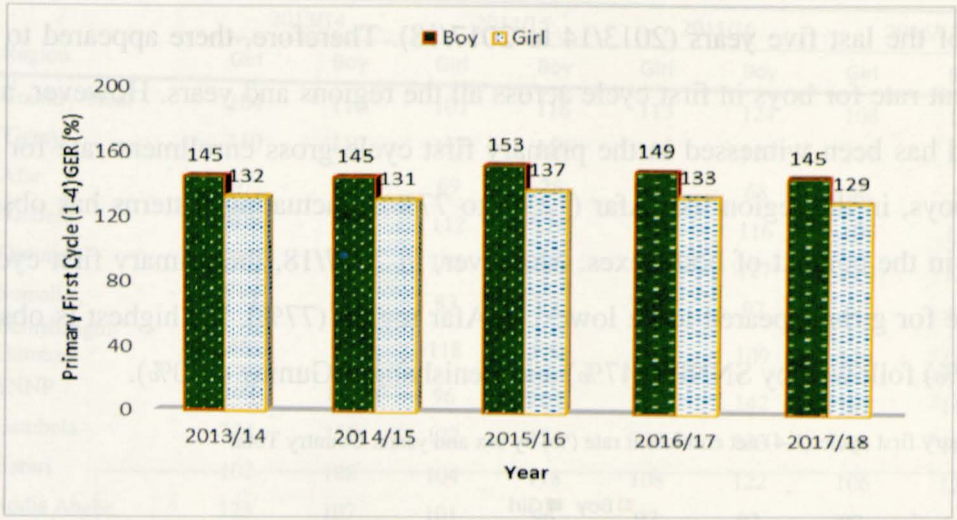
Table 6-3: Grade 1 gross enrolment rate (%) by sex, region and years

	2013/14		2014/15		2015/16		2016/17		2017/18	
Region	Girl	Boy	Girl	Boy	Girl	Boy	Girl	Boy	Girl	Boy
Country Total	146	160	149	167	166	186	142	158	130	144
Tigray	132	140	141	153	134	148	128	141	120	130
Afar	217	208	70	85	116	137	80	92	55	60
Amhara	146	159	136	145	130	147	106	118	104	118
Oromia	148	166	152	172	186	209	159	178	159	178
Somali	32	35	146	198	67	86	73	95	4	5
Benishangul-Gumuz	140	159	174	194	184	210	182	196	146	154
SNNP	165	183	155	168	209	232	146	162	155	171
Gambela	131	141	181	207	211	242	168	192	112	123
Harari	177	187	162	191	197	221	154	175	145	166
Addis Ababa	112	100	97	87	152	126	123	105	74	70
Dire Dawa	110	111	84	84	145	149	156	163	153	166

(Source, MOE, EMIS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

The gross enrollment of grade 1 girls appeared to be lowest in Somali region (32%) in 2013/14 and remained 4% in 2017/18, the highest is observed in Afar (217%) in the same year (2013/14). Though in 2017/18, maximum gross enrollment of girls in grade 1 is found in Oromia region (159%), followed by SNNP (155%) and Dire Dawa (153%).

Figure 6-4: Primary first cycle (1-4) gross enrolment rate (%) by sex and years, Country Total



(Source, MOE, EMIS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

Figure 6-4 depicts the gross enrollment rate for the primary first cycle (grade 1-4) by sex over the last five years (2013/14 to 2017/18). Consequently, gross enrollment rate in first cycle (grade 1-4) for girls remain less as compared to boys. Gross enrollment rate for both sexes is appeared to be over 100% for the first cycle (and reaching to the top in 2015/16), while boys' gross enrollment exceeds the girls across all the reported years (2013/14 to 2017/18).

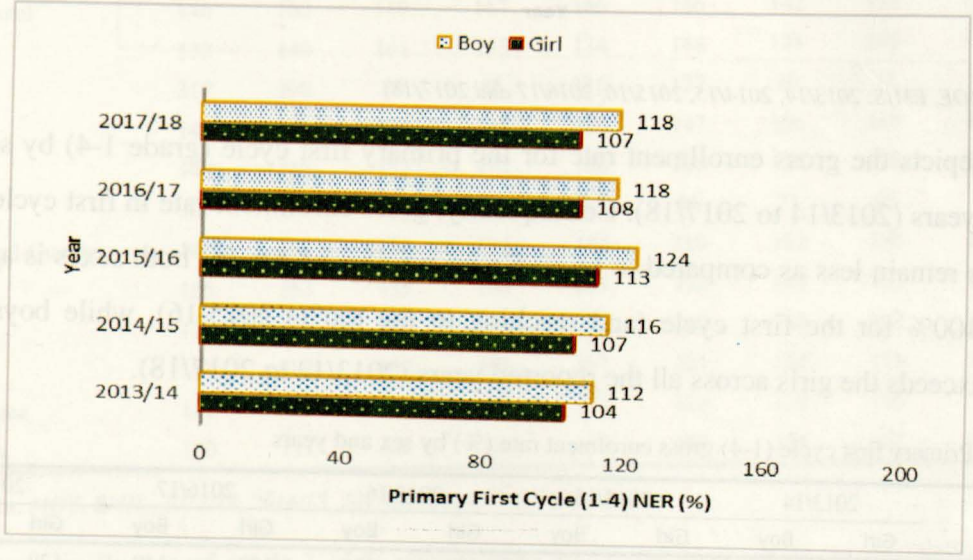
Table 6-4: Primary first cycle (1-4) gross enrolment rate (%) by sex and years

	2013/14		2014/15		2015/16		2016/17		2017/18	
Region	Girl	Boy	Girl	Boy	Girl	Boy	Girl	Boy	Girl	Boy
Country Total	132	145	131	145	137	153	133	149	129	145
Tigray	196	147	127	135	128	139	127	139	124	135
Afar	123	134	105	122	96	109	89	102	77	89
Amhara	136	146	137	149	132	145	123	135	111	123
Oromia	119	137	123	140	136	155	134	153	136	154
Somali	110	116	131	156	124	155	107	144	107	142
Benishangul-Gumuz	185	192	138	152	133	152	149	165	140	155
SNNP	128	138	131	148	149	165	138	158	147	162
Gambela	120	133	177	196	183	200	175	193	166	183
Harari	134	149	130	148	138	156	134	156	132	155
Addis Ababa	220	248	169	140	157	130	143	120	135	117
Dire Dawa	120	126	84	84	88	89	124	135	129	140

(Source, MOE, EMIS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

Table 6-4 exhibits the regional gender-disaggregated primary first cycle (1-4) gross enrollment rate statistics of the last five years (2013/14 to 2017/18). Therefore, there appeared to be high gross enrollment rate for boys in first cycle across all the regions and years. However, a gradual declining trend has been witnessed in the primary first cycle gross enrollment rate for girls, as compared to boys, in the region like Afar (123% to 77%), fluctuating patterns has observed in other regions, in the context of both sexes. Moreover, in 2017/18, the primary first cycle gross enrollment rate for girls appeared to be lowest in Afar region (77%), the highest is observed in Gambela (166%) followed by SNNP (147%) and Benishangul-Gumuz (140%).

Figure 6-5: Primary first cycle (1-4) net enrolment rate (%) by sex and years, Country Total



(Source, MOE, EMIS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

Figure 6-5 portrays the net enrollment rate for the primary first cycle (grade 1-4) by sex over the last five years (2013/14 to 2017/18). Thus, net enrollment rate in first cycle (grade 1-4) for girls remain less as compared to boys. The net enrollment rate for both sexes is appeared to be over 100% for the first cycle (and reaching to the top in 2015/16 for sexes).

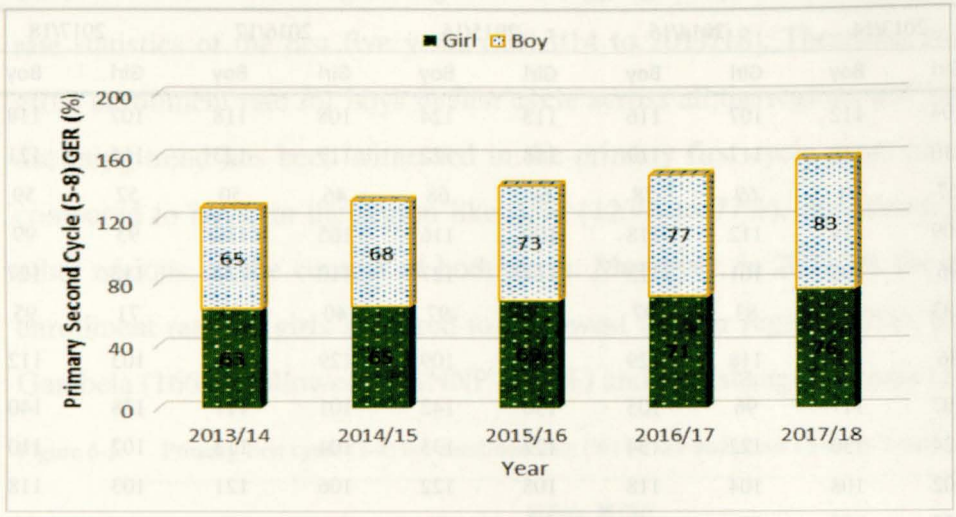
Table 6-5: Primary first cycle (1-4) net enrolment rate (%) by sex, region and years

Region	2013/14		2014/15		2015/16		2016/17		2017/18	
	Girl	Boy	Girl	Boy	Girl	Boy	Girl	Boy	Girl	Boy
Country Total	104	112	107	116	113	124	108	118	107	118
Tigray	110	110	117	119	118	122	117	123	115	121
Afar	67	71	69	78	64	68	46	50	52	59
Amhara	109	114	112	118	109	116	105	112	93	99
Oromia	96	106	101	113	114	127	110	124	113	127
Somali	133	152	83	97	78	97	40	53	71	95
Benishangul-Gumuz	86	97	118	129	100	109	129	141	103	112
SNNP	107	117	96	105	130	142	101	111	128	140
Gambela	124	130	122	134	122	133	104	113	102	110
Harari	102	108	104	118	108	122	106	121	103	118
Addis Ababa	125	107	101	96	97	92	92	88	90	87
Dire Dawa	84	86	62	62	66	68	95	104	99	108

(Source, MOE, EMIS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

Table 6-5 demonstrates the regional gender-disaggregated primary first cycle (1-4) net enrollment rate statistics of the last five years (2013/14 to 2017/18). As a result, a gradual declining trend has been witnessed in the primary first cycle net enrollment rate for girls, as compared to boys, in the regions like Afar (67 % to 52%), fluctuating patterns (showing both increase for a year and decline in another) has emerged in other regions, in the context of both sexes. Moreover, in 2017/18, while the primary first cycle net enrollment rate for girls appeared to be lowest in Afar region (52%), the highest is observed in SNNP (128%) followed by Tigray (115%) and Oromia (113%). In general, there appeared to be high net enrollment rate for boys in first cycle in the majority of the regions except Addis Ababa City Administration across all survey years.

Figure 6-6 : Primary second Cycle (5-8) gross enrolment rate (%) by sex and years, Country Total



(Source, MOE, EMIS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

Figure 6-6 outlines the gross enrollment rate for the primary second cycle (grade 5-8) by sex over the last five years (2013/14 to 2017/18). Accordingly, while gross enrollment rate for both sexes is appeared to be less than 100% for the second cycle, and reaching the top in 2017/18, boys' gross enrollment marginally exceeds that of girls in all the reported years (2013/14 till 2017/18). Therefore, gross enrollment rate in second cycle (grade 5-8) for girls remain less than boys showing consistent growth being 63% in 2013/14 to 76% in 2017/18.

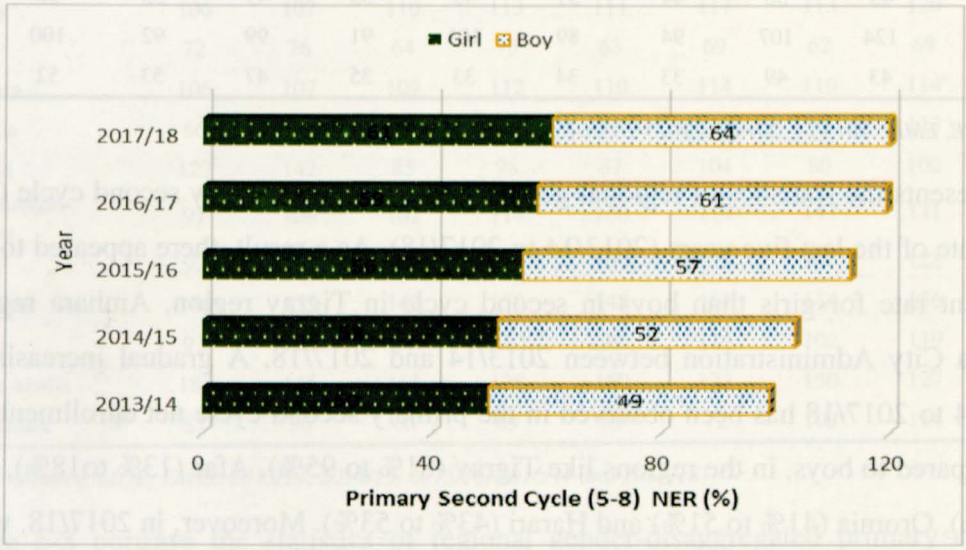
Table 6-6: Primary second cycle (5-8) gross enrolment rate (%) by sex, region and years

	2013/14		2014/15		2015/16		2016/17		2017/18	
Region	Girl	Boy	Girl	Boy	Girl	Boy	Girl	Boy	Girl	Boy
Country Total	63	65	65	68	69	73	71	77	76	83
Tigray	179	146	93	91	94	95	99	101	104	107
Afar	23	23	22	28	23	27	28	30	27	31
Amhara	76	67	80	73	86	80	92	88	97	96
Oromia	62	79	53	60	57	66	59	69	62	74
Somali	64	76	32	37	37	43	37	45	46	53
Benishangul-Gumuz	106	116	66	75	65	85	70	81	78	99
SNNP	57	67	63	83	69	79	70	91	74	85
Gambela	51	56	108	122	110	121	111	120	112	119
Harari	65	72	57	70	61	75	64	78	69	85
Addis Ababa	37	45	157	136	163	135	156	133	156	135
Dire Dawa	91	86	49	53	49	53	68	77	74	83

(Source, MOE, EMIS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

Table 6-6 reveals the regional sex-disaggregated primary second cycle (5-8) gross enrollment rate statistics of the last five years (2013/14 to 2017/18). Accordingly, there appeared to be high gross enrollment rate for boys in second cycle in the majority of the regions except Amhara region (2013/14-2017/18) and Addis Ababa City Administration between 2014/15 and 2017/18. A gradual increasing trend has been observed in the primary second cycle gross enrollment rate for girls as compared to boys in the Gambela region. Moreover, the primary second cycle gross enrollment rate for girls appeared to be lowest in Afar region (27%), the highest is observed in Addis Ababa (156%) followed by Gambela (112%) and Tigray (104%) in 2017/18.

Figure 6-7: Primary second cycle (5-8) net enrolment rate (%) by sex and years, Country Total



(Source, MOE, EMIS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

Figure 6-7 displays the net enrollment rate for the primary second cycle (grade 5-8) by sex over the last five years (2013/14 to 2017/18). Accordingly, while net enrollment rate for both sexes is appeared to be less than 100% for the second cycle and reaching to the top in 2017/18, boys' net enrollment rate exceeds the girls in the past, except in the years 2013/14 and 2014/15. Therefore, net enrollment rate in second cycle (grade 5-8) for girls remain less, as compared to boys, though with consistent increase from 50% in 2013/14 to 61% in 2017/18.

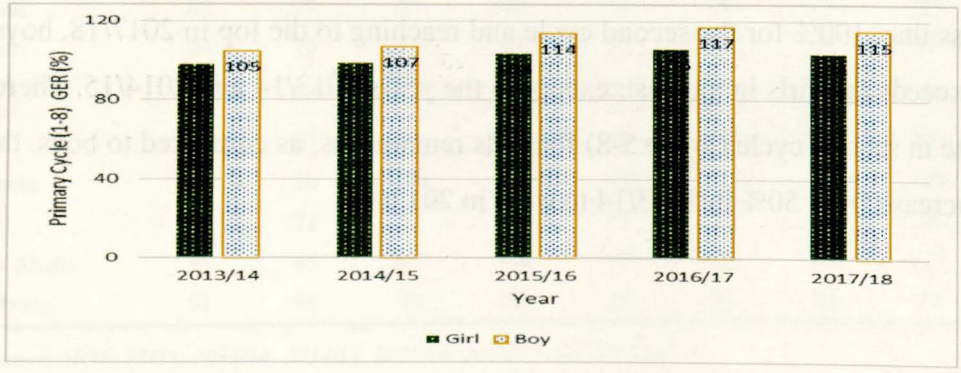
Table 6-7: Primary second cycle (5-8) net enrolment rate (%) by sex, region and years

Region	2013/14		2014/15		2015/16		2016/17		2017/18	
	Girl	Boy	Girl	Boy	Girl	Boy	Girl	Boy	Girl	Boy
Country Total	50	49	52	52	56	57	59	61	61	64
Tigray	81	71	84	77	86	80	90	86	95	92
Afar	13	12	13	16	15	15	18	18	18	19
Amhara	58	49	62	53	68	60	75	68	76	71
Oromia	41	43	43	46	47	52	48	55	51	59
Somali	24	30	20	23	24	27	24	28	30	34
Benishangul-Gumuz	38	43	56	61	41	47	60	68	50	56
SNNP	53	57	39	45	59	66	44	50	64	71
Gambela	59	66	60	69	57	64	53	57	57	60
Harari	43	50	44	51	45	53	49	55	53	60
Addis Ababa	124	107	94	89	101	91	99	92	100	93
Dire Dawa	43	49	33	34	33	35	47	53	52	57

(Source, MOE, EMIS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

Table 6-7 presents the statistics of regional gender-disaggregated primary second cycle (5-8) net enrollment rate of the last five years (2013/14 to 2017/18). As a result, there appeared to be high net enrollment rate for girls than boys in second cycle in Tigray region, Amhara region and Addis Ababa City Administration between 2013/14 and 2017/18. A gradual increasing trend from 2013/14 to 2017/18 has been observed in the primary second cycle net enrollment rate for girls, as compared to boys, in the regions like Tigray (81% to 95%), Afar (13% to18%), Amhara (58% to 76%), Oromia (41% to 51%) and Harari (43% to 53%). Moreover, in 2017/18, while the primary second cycle net enrollment rate for girls appeared to be lowest in Afar region (18%), the highest is in Addis Ababa (100%) followed by Tigray (95%) and Amhara (76%).

Figure 6-8: Primary cycle (1-8) gross enrolment rate (%) by sex and years, Country Total



(Source, MOE, EMIS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

Figure 6-8 outlines the gross enrollment rate for the complete primary cycle (grade 1-8) by sex over the last five years (2013/14 to 2017/18). Accordingly, gross enrollment rate for boys appeared to be over 100% across all the reported years (2013/14 to 2017/18), for the girls' gross enrollment rate reaches to the highest (106%) in 2016/17 and dropped to 104% in the following year (2017/18). Therefore, gross enrollment rate in overall primary cycle (grade 1-8) for girls even though remain less than boys, there exist some growing pattern in it till 2016/17.

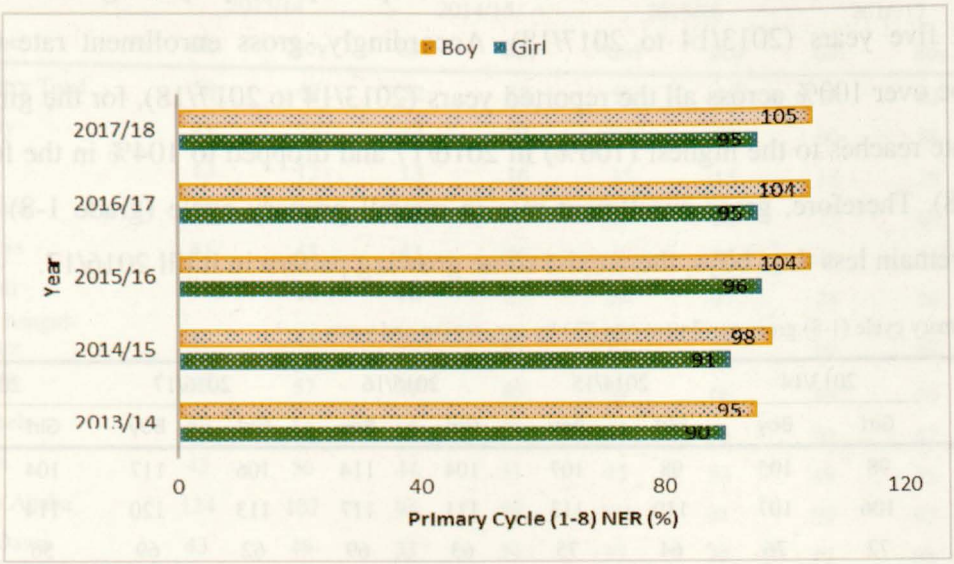
Table 6-8: Primary cycle (1-8) gross enrolment rate (%) by sex, region and years

	2013/14		2014/15		2015/16		2016/17		2017/18	
Region	Girl	Boy	Girl	Boy	Girl	Boy	Girl	Boy	Girl	Boy
Country Total	98	105	98	107	104	114	106	117	104	115
Tigray	106	107	110	113	111	117	113	120	114	121
Afar	72	76	64	75	63	69	62	69	56	63
Amhara	106	107	109	112	110	114	110	114	105	111
Oromia	86	96	89	101	97	111	99	113	100	115
Somali	127	142	85	98	87	104	80	102	85	106
Benishangul-Gumuz	91	109	102	114	100	119	117	131	110	128
SNNP	97	107	97	116	109	122	107	128	110	123
Gambela	146	155	143	159	148	161	144	156	140	151
Harari	93	103	94	110	99	116	102	119	101	120
Addis Ababa	187	146	163	138	160	133	150	127	144	125
Dire Dawa	87	96	66	69	69	72	103	114	101	111

(Source, MOE, EMIS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

Table 6-8 portrays the statistics of regional gender-disaggregated primary cycle (1-8) gross enrollment rate of the last five years (2013/14 to 2017/18). In general, there appeared to be high gross enrollment rate for boys in the primary cycle across all the regions, except Addis Ababa between 2013/14 and 2017/18, where girl enrollment rate is more than that of boys. A gradual increasing trend from 2013/14 to 2017/18 has been witnessed in the primary cycle gross enrollment rate for girls, as compared to boys, in the regions like Tigray (106% to 114%) and Oromia (86% to 100%). Moreover, in 2017/18, while the primary cycle (grade 1-8) gross enrollment rate for girls appeared to be lowest in Afar region (56%), the highest is observed in Addis Ababa (144%) followed by Gambela (140%) and Tigray (114%).

Figure 6-9: Primary cycle (1-8) net enrolment rate (%) by sex and years, Country Total



(Source, MOE, EMIS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

Figure 6-9 illustrates the country level net enrollment rate for the complete primary cycle (grade 1-8) by sex over the last five years (2013/14 to 2017/18). The net enrollment rate for boys appeared to be growing from 95% in 2013/14 to 105% in 2017/18, a parallel growth though less than that in the case of boys, has been observed in the net enrollment rate of girls too during this time (from 90% to 95%).

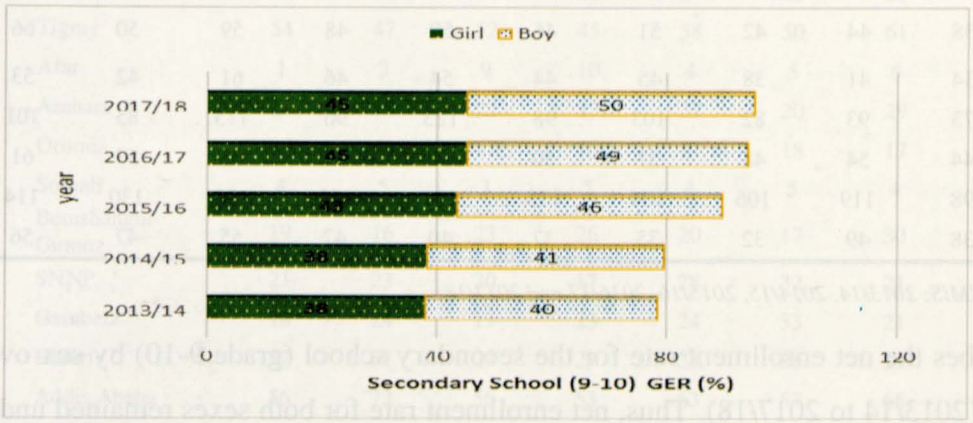
Table 6-9: Primary cycle (1-8) net enrolment rate (%) by sex, region and years

	2013/14		2014/15		2015/16		2016/17		2017/18	
Region	Girl	Boy	Girl	Boy	Girl	Boy	Girl	Boy	Girl	Boy
Country Total	90	95	91	98	96	104	95	104	95	105
Tigray	101	98	105	105	107	108	108	111	109	113
Afar	59	61	55	63	54	57	48	52	48	53
Amhara	98	97	100	101	101	103	102	105	94	98
Oromia	81	89	83	93	92	103	91	103	93	106
Somali	110	124	75	86	77	92	63	81	73	92
Benishangul-Gumuz	78	88	96	106	87	97	103	115	95	104
SNNP	90	99	84	94	103	114	90	101	105	115
Gambela	116	123	112	124	115	126	109	118	105	112
Harari	84	92	86	98	90	102	91	104	91	105
Addis Ababa	151	121	120	108	118	105	111	101	110	101
Dire Dawa	75	80	56	57	59	61	83	91	87	96

(Source, MOE, EMIS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

Table 6.9 highlights the regional sex-disaggregated primary cycle (1-8) net enrollment rate statistics for the last five years (2013/14 to 2017/18). There appeared to be high net enrollment rate for boys in the primary cycle in the majority of the regions except Tigray and Amhara in 2013/14 and Addis Ababa between 2013/14 and 2017/18. A gradual increasing trend from 2013/14 to 2017/18 has been seen in the primary cycle net enrollment rate for both sexes in Harari region. In addition, by 2017/18, while the primary cycle (grade 1-8) net enrollment rate for girls appeared to be lowest in Afar region (48%), the highest is observed in Addis Ababa City Administration (110%) followed by Tigray region (109%).

Figure 6-10: Secondary school (9-10) Gross Enrollment rate (%) by sex and years, Country Total



(Source, MOE, EMIS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

Figure 6-10 displays the gross enrollment rate for the secondary school (grade 9-10) by sex over the last five years (2013/14 to 2017/18). Accordingly, gross enrollment rate for both sexes remained under 100%, though boys appeared to be with better condition across all the reported years. However, there exists an increasing trend in gross enrollment of secondary school both for girls from 38% in 2013/14 to 45% in 2017/18 and for boys 40% to 50%, respectively.

Table 6-10 explores the statistics of regional gender-disaggregated secondary school (9-10) gross enrollment rate of the last five years (2013/14 to 2017/18). There appeared to be high gross enrollment rate for boys in the secondary school across all the regions, except Addis Ababa City Administration and Tigray and Amhara regions, between 2013/14 and 2017/18, where girl enrollment rate higher that of boys. A gradual increasing trend from 2013/14 to 2017/18 has been witnessed in the secondary school gross enrollment rate for girls, as compared to boys, in the regions like Benishangul-Gumuz (38% to 50%) and Harari (44% to 53%) and Addis Ababa City Administration (98% to 130%). Moreover, in 2017/18, while the secondary school (grade 9-10)

gross enrollment rate for girls appeared to be lowest in Afar region (13%), the highest is observed in Addis Ababa (130%).

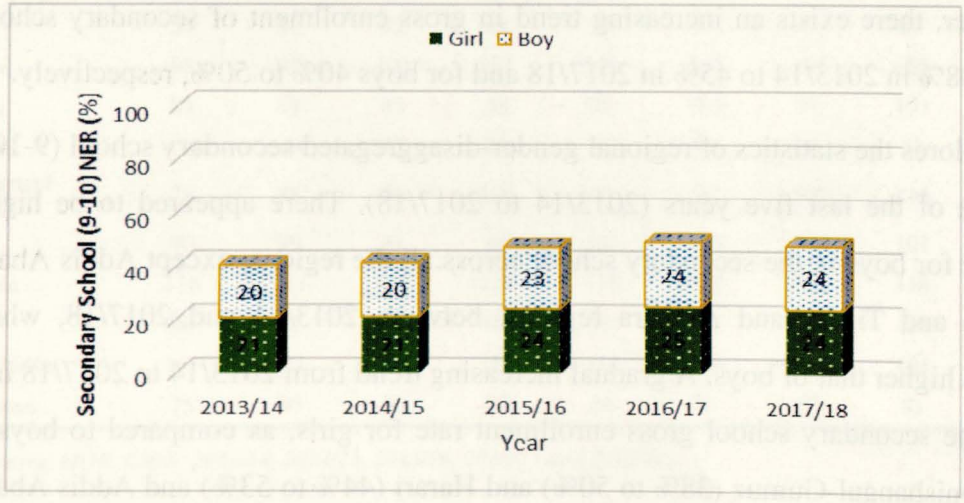
Table 6-10: Secondary school (9-10) Gross Enrollment rate (%) by sex, region and years

Region	2013/14		2014/15		2015/16		2016/17		2017/18	
	Girl	Boy	Girl	Boy	Girl	Boy	Girl	Boy	Girl	Boy
Country Total	38	40	38	41	43	46	45	49	45	50
Tigray	71	65	69	63	74	70	76	71	78	75
Afar	7	10	18	26	10	14	13	18	13	18
Amhara	46	41	45	41	53	47	56	50	58	52
Oromia	32	37	31	37	33	40	34	41	35	45
Somali	10	16	8	16	11	16	11	17	17	24
Benishangul-Gumuz	38	44	42	51	46	58	48	59	50	66
SNNP	34	41	38	45	44	54	46	61	42	53
Gambela	73	93	82	103	98	123	96	115	85	101
Harari	44	54	48	57	50	56	51	58	53	61
Addis Ababa	98	119	106	104	118	107	123	108	130	114
Dire Dawa	38	49	32	35	37	40	47	55	47	56

(Source, MOE, EMIS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

Figure 6-11 describes the net enrollment rate for the secondary school (grade 9-10) by sex over the last five years (2013/14 to 2017/18). Thus, net enrollment rate for both sexes remained under 100%, though girls NER is more than that of boys between 2013/14 to 2016/17. Specifically, there exists an increasing trend in net enrollment of secondary school both for the girls (from 21% in 2013/14 to 24% in 2017/18) and for boys (20% in 2013/14 to 24% in 2016/17).

Figure 6-11: Secondary School (9-10) Net Enrollment rate (%) by sex and years, Country Total



(Source, MOE, EMIS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

Table 6-11 exhibits the statistics of regional sex-disaggregated secondary school (9-10) net enrollment rate for the last five years (2013/14 to 2017/18). There appeared to be high net enrollment rate for girls in the secondary school in Tigray region, Harari region, and Addis Ababa City Administration between 2014/15 and 2017/18. A gradual increasing trend from 2013/14 to 2017/18 has been seen in the secondary school net enrollment rate for girls, as compared to boys, in the regions like Oromia (16% to 18%) and Addis Ababa (56% to 70%).

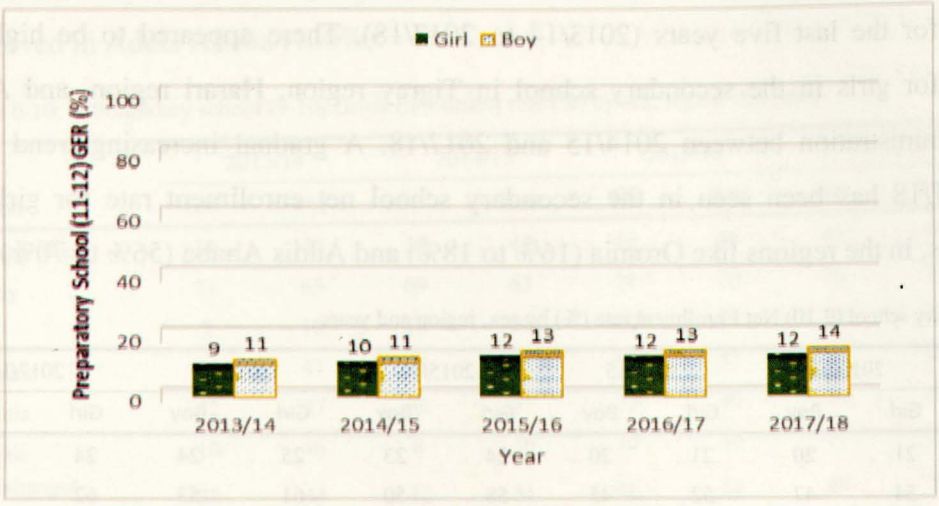
Table 6-11: Secondary school (9-10) Net Enrollment rate (%) by sex, region and years

	2013/14		2014/15		2015/16		2016/17		2017/18	
Region	Girl	Boy	Girl	Boy	Girl	Boy	Girl	Boy	Girl	Boy
County Total	21	20	21	20	24	23	25	24	24	24
Tigray	54	47	52	45	58	50	61	53	62	55
Afar	1	3	9	10	4	5	6	7	5	7
Amhara	22	18	22	17	27	20	29	22	28	21
Oromia	16	16	17	16	17	18	17	18	18	19
Somali	4	5	3	5	4	5	4	6	7	8
Benishangul-Gumuz	19	16	23	26	20	17	30	34	21	18
SNNP	21	23	20	17	28	32	21	18	25	29
Gambela	18	24	17	23	24	33	21	26	20	23
Harari	27	31	29	29	28	26	29	28	23	22
Addis Ababa	56	72	56	53	63	57	65	57	70	61
Dire Dawa	19	19	17	13	17	14	23	20	22	19

(Source, MOE, EMIS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

Figure 6-12 displays the gross enrollment rate for the preparatory school (grade 11-12) by sex over the last five years (2013/14 to 2017/18). Accordingly, gross enrollment rate for sexes is found increasing over the last five years (2013/14 to 2017/18). Specifically, gross enrollment rate for preparatory school for girls increased from 9% to 12% between 2013/14 and 2017/18, and for boys it increased from 11% to 14% during that time, respectively.

Figure 6-12: Preparatory school (11-12) Gross Enrollment Rate (%) by sex and years, Country Total



(Source, MOE, EMIS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

Table 6-12 presents the statistics of regional sex-disaggregated preparatory school (11-12) gross enrollment rate of the last five years (2013/14 to 2017/18). In general, there appeared to be high gross enrollment rate for boys in the preparatory school across all the regions, except Addis Ababa for the last five years. Moreover, gross enrollment rate for girls appeared to be lowest in Afar region (6%), the highest is observed in Addis Ababa (54%) followed by Amhara (16%) and Dire Dawa (14%) in 2017/18.

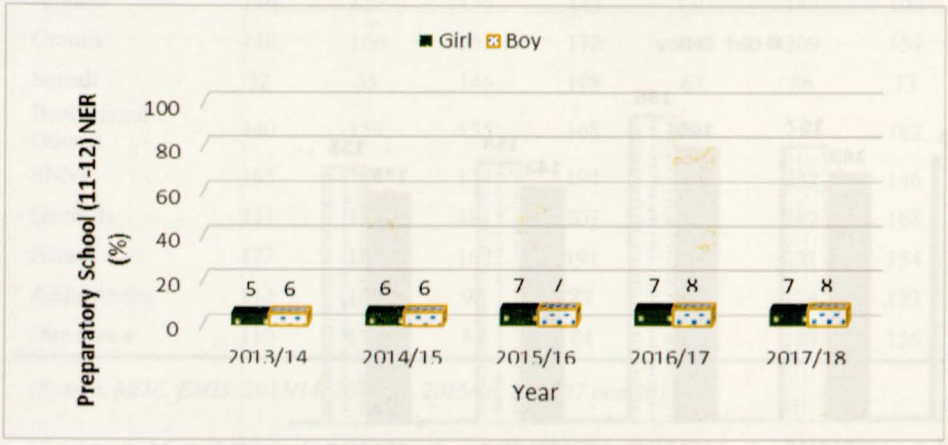
Table 6-12: Preparatory school (11-12) Gross Enrollment rate (%) by sex, region and years

	2013/14		2014/15		2015/16		2016/17		2017/18	
Region	Girl	Boy	Girl	Boy	Girl	Boy	Girl	Boy	Girl	Boy
Country Total	9	10	10	11	12	13	12	13	12	14
Tigray	15	14	16	16	17	19	13	16	13	17
Afar	3	3	5	8	4	6	7	10	6	7
Amhara	11	12	11	12	15	16	13	14	16	17
Oromia	6	8	7	8	8	10	9	11	8	11
Somali	5	9	8	12	7	10	7	10	8	11
Benishangul-Gumuz	9	12	8	10	9	11	12	15	12	14
SNNP	7	9	8	10	10	12	12	13	10	14
Gambela	9	33	12	35	16	50	11	39	11	35
Harari	14	16	17	19	19	19	16	16	14	15
Addis Ababa	53	51	53	50	54	53	50	47	54	49
Dire Dawa	13	16	11	13	14	16	15	19	14	16

(Source, MOE, EMIS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

Figure 6-13 depicts the net enrollment rate for the preparatory school (grade 11-12) by sex over the last five years (2013/14 to 2017/18). Accordingly, net enrollment rate for boys shows an increasing trend from 2013/14 (6%) to 2017/18 (8%), and no change is observed in the context of girls between 2015/16 and 2017/18 (being remained 7%).

Figure 6-13: Preparatory school (11-12) Net Enrollment rate (%) by sex and years, Country Total



(Source, MOE-EMIS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

Table 6-13 outlines the statistics of regional gender-disaggregated preparatory school (11-12) net enrollment rate of the last five years (2013/14 to 2017/18). In the year 2017/18 the highest NER of girls registered by Addis Ababa City Administration (37%) while the lowest recorded by Afar region (1%).

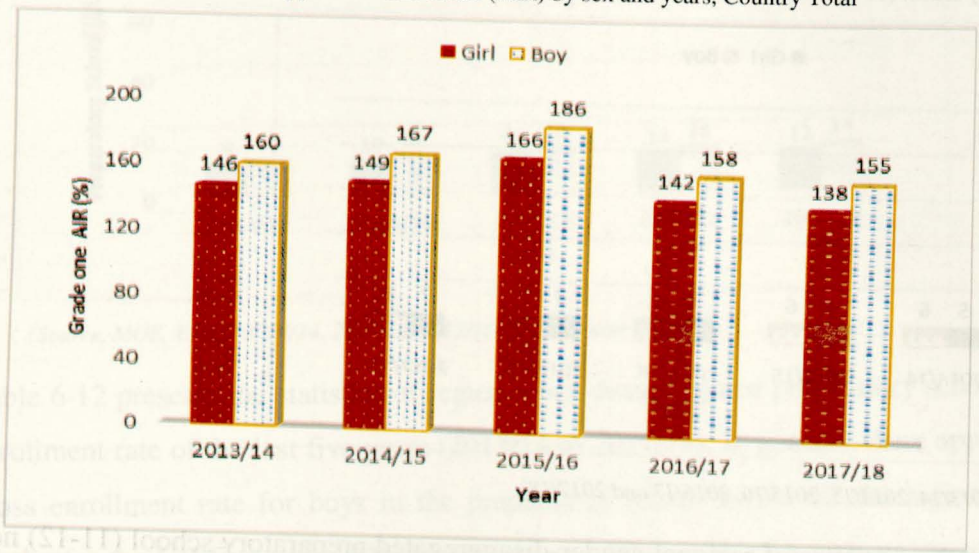
Table 6-13: Preparatory school (11-12) Net Enrollment Rate NER (%) by sex. region and years

	2013/14		2014/15		2015/16		2016/17		2017/18	
Region	Girl	Boy	Girl	Boy	Girl	Boy	Girl	Boy	Girl	Boy
Country Total	5	6	6	6	7	7	7	8	7	8
Tigray	11	10	12	12	13	14	10	11	10	12
Afar	1	1	3	3	2	2	3	3	2	3
Amhara	6	5	5	5	8	8	7	7	9	8
Oromia	3	3	4	4	5	5	5	6	5	6
Somali	2	4	3	5	2	3	3	4	3	4
Benishangul-Gumuz	5	6	6	6	7	6	8	10	7	6
SNNP	5	6	5	5	7	8	8	6	7	9
Gambela	4	8	3	11	6	14	4	8	4	9
Harari	10	11	12	13	12	12	13	12	11	11
Addis Ababa	36	30	34	31	36	34	34	32	37	34
Dire Dawa	7	9	7	7	8	7	9	9	8	8

(Source, MOE-EMIS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

Figure 6-14 reveals the apparent intake ratio (AIR) for grade 1 by sex for the last five years (2013/14 to 2017/18). Accordingly, AIR for boys in grade 1 remained higher than that for girls across all the reporting years. Moreover, AIR for both sexes has been fluctuating through years and reached highest in 2015/16.

Figure 6-14: Grade one Apparent Intake Ratio (AIR) by sex and years, Country Total



(Source, MOE, EMIS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

Similarly, Table 6-14 depicts the grade 1 AIR by sex and region, for the last five years (2013/14 to 2017/18). In general, the AIR across all the regions is found decreasing between 2013/14 and 2017/18, except in Oromia, Somali and Dire Dawa regions. The high AIR represents better access to education for the specific grade in a given region. However, in 2017/18 for both sexes, the lowest AIR is observed in Somali (89% for boys and 65% for girls) and Addis Ababa (72% for boys and 86% for girls) regions.

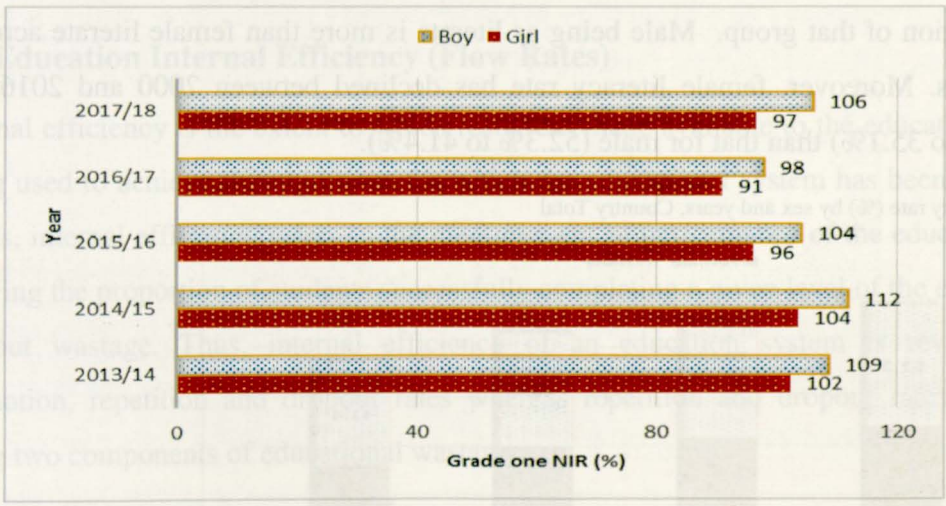
Table 6-14: Grade one Apparent Intake Ratio (AIR) by sex, Region and Years

Region	2013/14		2014/15		2015/16		2016/17		2017/18	
	Girl	Boy	Girl	Boy	Girl	Boy	Girl	Boy	Girl	Boy
Country Total	146	160	149	167	166	186	142	158	138	155
Tigray	132	140	141	153	134	148	128	141	121	132
Afar	217	208	70	85	116	137	80	92	91	105
Amhara	146	159	136	145	130	147	106	118	104	118
Oromia	148	166	152	172	186	209	159	178	167	187
Somali	32	35	146	198	67	86	73	95	65	89
Benishangul-Gumuz	140	159	155	168	184	210	182	196	147	156
SNNP	165	183	174	194	209	232	146	162	159	175
Gambela	131	141	181	207	211	242	168	192	135	152
Harari	177	187	162	191	197	221	154	175	145	166
Addis Ababa	112	100	97	87	152	126	123	105	86	72
Dire Dawa	110	111	84	84	145	149	156	163	153	166

(Source, MOE, EMIS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

Figure 6-15 exhibits the net intake ratio (NIR) for grade 1 by sex for the last five years (2013/14 to 2017/18). A high NIR indicates high degree of access to primary education for the official primary school-entrance age children. Accordingly, NIR for boys in grade 1 remained higher than that for girls across all the five reporting years (2013/14 to 2017/18). This shows that boys are relatively more accessible to the grade 1 education than girls.

Figure 6-15: Grade one Net Intake Ratio (NIR) by sex and years, Country Total



(Source, MOE, EMIS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

Similarly, Table 6-15 displays the NIR for grade 1 by sex and region, for the last five years (2013/14 to 2017/18). In 2017/18 SNNP region registered the highest NIR of girls while Somali region recorded the lowest.

Table 6-15: Grade one Net Intake Ratio (NIR) by sex, Region and Years

	2013/14		2014/15		2015/16		2016/17		2017/18	
Region	Girl	Boy	Girl	Boy	Girl	Boy	Girl	Boy	Girl	Boy
Country Total	102	109	104	112	96	104	91	98	97	106
Tigray	116	116	125	131	107	108	111	117	105	109
Afar	74	67	31	38	54	57	27	30	39	43
Amhara	116	121	108	110	101	103	83	88	87	95
Oromia	99	109	106	117	92	103	94	103	108	120
Somali	9	10	28	37	77	92	19	25	21	28
Benishangul-Gumuz	92	101	95	105	87	97	126	134	91	97
SNNP	116	127	127	138	103	114	49	52	121	132
Gambela	67	70	97	112	115	126	62	73	54	60
Harari	102	111	91	102	90	102	70	81	85	94
Addis Ababa	45	45	43	43	118	105	44	48	36	37
Dire Dawa	50	51	44	44	59	61	67	71	76	83

(Source, MOE, EMIS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

Figure 6-16 demonstrates the population literacy rate by gender, at the country level, as obtained through DHS surveys (2000, 2005, 2011 and 2016). Literacy rate is defined as the total number of literate persons (those who can write and read) in a given group expressed as a percentage of the total population of that group. Male being as literate is more than female literate across all the four surveys. Moreover, female literacy rate has declined between 2000 and 2016 more rapidly (50.8% to 35.1%) than that for male (52.3% to 41.4%).

Figure 6-16: Literacy rate (%) by sex and years, Country Total



(Source, CSA, DHS: 2000, 2005, 2011 and 2017/18)

Additionally, literacy rate across the regions, and by sex, is presented in Table 6-16, for the four DHS survey years (2000, 2005, 2011 and 2016). Accordingly, the majority of the literate persons are male than female across all the regions. An increase in the literacy rate for female has been reported between 2000 and 2016 in the Tigray (17% to 51%), Amhara (16% to 45%), Oromia (15.3% to 37.3%), Benishangul-Gumuz (17% to 38.7%), SNNP (17.4% to 35.3%), and Gambela (19.8% to 50%). Moreover, the highest literacy rate for both sexes has been observed in Addis Ababa (95.7% for male and 87.8% for female), followed by Dire Dawa (82.4% and 54.5%).

Table 6-16: Literacy rate (%) by sex, region and years

	2000		2005		2011		2016	
Region	Female	Male	Female	Male	Female	Male	Female	Male
Country Total	50.8	52.3	45.9	47.3	42.6	46.1	35.1	41.4
Tigray	17.0	47.5	33.7	67.5	45.1	71.8	51.0	79.9
Afar	12.7	23.9	15.6	27.0	20.4	52.5	23.7	50.8
Amhara	16.0	33.2	25.1	54.0	36.7	61.9	45.0	65.8
Oromia	15.3	32.5	29.5	61.5	38.1	67.2	37.3	68.5
Somali	9.2	16.0	9.8	22.0	19.8	51.2	12.4	56.8
Benishangul-Gumuz	17.0	41.4	23.2	47.4	29.5	62.2	38.7	69.7
SNNP	17.4	51.0	22.4	57.0	31.0	64.8	35.3	64.6
Gambela	19.8	62.7	22.8	57.5	36.4	73.3	50.0	82.2
Harari	38.4	54.3	54.9	78.4	54.0	82.1	54.6	81.0
Addis Ababa	68.0	87.3	80.0	93.6	80.0	94.5	87.8	95.7
Dire Dawa	49.8	71.8	53.0	76.6	51.2	78.6	54.5	82.4

(Source, CSA, DHS: 2000, 2005, 2011 and 2017/18)

6.2. Education Internal Efficiency (Flow Rates)

Internal efficiency is the extent to which resources made available to the educational system are being used to achieve the objectives for which the educational system has been set up. In other words, internal efficiency refers to the measurement of performance of the education system by showing the proportion of students successfully completing a given level of the education system without wastage. Thus, internal efficiency of an education system is revealed by grade promotion, repetition and dropout rates whereas repetition and dropout rates are considered being two components of educational wastage.

While dropout is leaving a school before completion of a given stage of education or some intermediate or non-terminal point in level of education, many students repeat a grade because they did not attend school frequently (if at all) the previous year, because of more serious health, nutrition problems or because their family requires them to assume work responsibilities. Since internal efficiency is calculated based on dropout, repetition and promotion rates, the higher the promotion and completion rates, the better the system's efficiency.

Therefore, before discussing this sub section, it is logical to understand some of the important indicators used in educational planning and policy/decision-making. These include:

Completion Rate- total number of students who successfully completed the final years grade of primary schools, expressed as percentage of the total population of the school leaving age.

Promotion Rate- percentage of pupils promoted to next grade in the following school year.

Repetition Rate- proportion of students who have remained in the same grade over one year and used additional resources (materials etc.) for the grade.

Survival Rate- percentage of a cohort of pupils, who enroll together in the first grade of primary education, which reaches a given grade (e.g. grade 5) or the final grade of an education cycle either with or without repeating a grade.

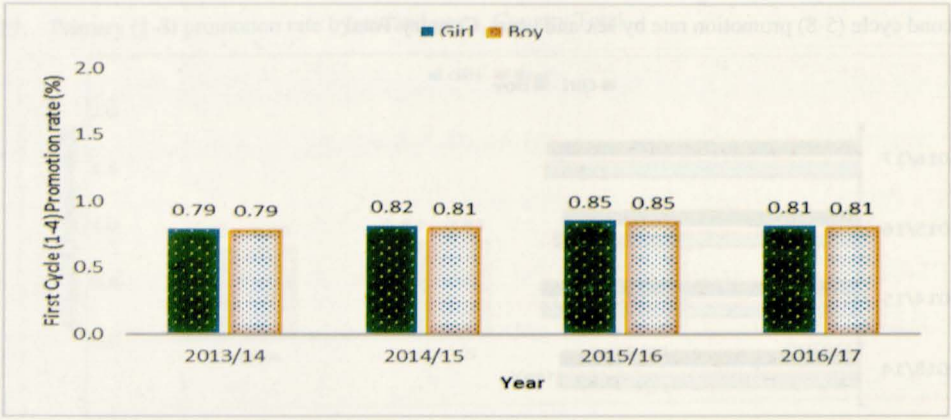
An attempt was made to extract gender-disaggregated data from EMIS, targeted to internal efficiency related indicators like promotion rate (successfully completed a grade), dropout rate (leave the system without completing the grade) and survival rate (expected to reach a successive grade).

Promotion Rate

Promotion rate measures proportion of pupils from a cohort enrolled in a given grade at a given school year who study in the next grade in the following school year. It helps to measure the performance of the education system in promoting pupils from a cohort from grade to grade, and its effect on the internal efficiency of educational systems. Ideally, a high rate reflects high internal efficiency of the educational system. When compared across grades, the patterns can indicate specific grades for which there is low promotion. This sub section highlights the gender analysis pertaining to country and regions for promotion rate in first-cycle (grade 1-4), second cycle (grade 5-8), secondary (grade 9-10) and preparatory (grade 11-12).

Accordingly, Figure 6-17 reveals the promotion rate in first cycle (grade 1-4) by sex for the last four years (2013/14 to 2016/17). Therefore, the promotion rate for both sexes appeared to be no differences.

Figure 6-17: First cycle (1-4) promotion rate by sex and years, Country Total



(Source, MOE, EMIS: 2013/14, 2014/15, 2015/16, and 2016/17)

Table 6-17 highlights the statistics of regional gender-disaggregated first cycle (grade 1-4) promotion rate of the last four years (2013/14 to 2016/17). In 2017/18, while the first cycle (grade 1-4) promotion rate for girls appeared being lowest in Afar (0.64%), the highest is observed in Addis Ababa (0.98%) followed by Tigray and Somali regions (each 0.95%).

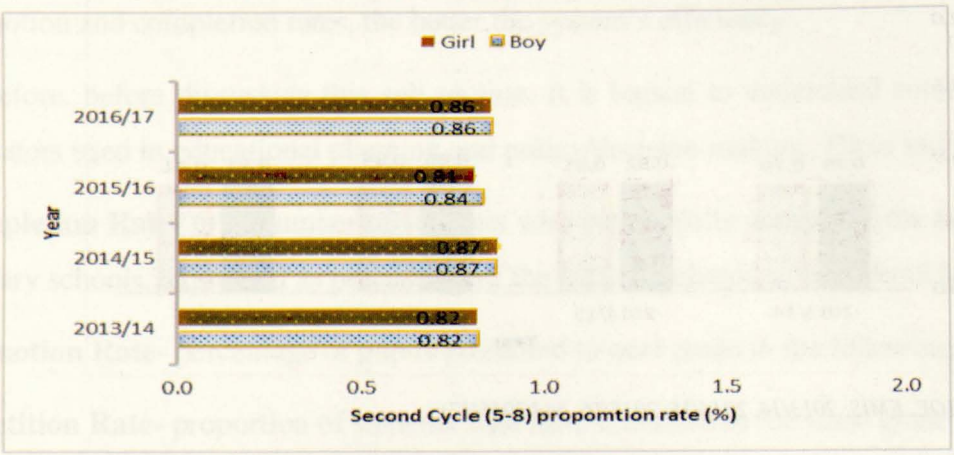
Table 6-17: First cycle (1-4) promotion rate by sex, region and Years

	2013/14		2014/15		2015/16		2016/17	
Region	Girl	Boy	Girl	Boy	Girl	Boy	Girl	Boy
Country Total	0.79	0.79	0.82	0.81	0.85	0.85	0.81	0.81
Tigray	0.95	0.93	0.94	0.93	0.96	0.95	0.95	0.93
Afar	0.83	0.97	0.48	0.44	0.76	0.75	0.64	0.66
Amhara	0.81	0.78	0.86	0.83	0.90	0.86	0.87	0.85
Oromia	0.75	0.75	0.80	0.80	0.82	0.82	0.77	0.78
Somali	0.85	0.86	0.67	0.70	0.86	0.92	0.95	0.91
Benishangul-Gumuz	0.80	0.80	0.72	0.72	0.75	0.76	0.74	0.75
SNNP	0.73	0.74	0.81	0.81	0.88	0.91	0.77	0.77
Gambela	0.75	0.79	0.80	0.79	0.87	0.88	0.76	0.74
Harari	0.67	0.69	0.70	0.69	0.77	0.79	0.76	0.78
Addis Ababa	0.85	0.97	0.93	0.92	1.02	0.96	0.98	0.99
Dire Dawa	0.77	0.77	0.76	0.78	0.98	0.98	0.79	0.81

(Source, MOE, EMIS: 2013/14, 2014/15, 2015/16, and 2016/17)

Figure 6-18 demonstrates the promotion rate for the second cycle (5-8 grades) by sex over the last four years (2013/14 to 2016/17). Accordingly, except 2015/16, whereby the promotion rate for boys remained higher than girls, there appeared to be no difference between the two sexes in this domain.

Figure 6-18: Second cycle (5-8) promotion rate by sex and years, Country Total



(Source, MOE, EMIS: 2013/14, 2014/15, 2015/16, and 2016/17)

Table 6-18 illustrates the statistics of regional sex-disaggregated second cycle (grade 5-8) promotion rate of the last four years (2013/14 to 2016/17). In 2017/18, the second cycle (5-8) promotion rate for girls appeared being lowest in Afar (0.72%), and the highest is observed in Addis Ababa (0.97%) followed by Tigray (0.94%) and Harari (0.91%) regions.

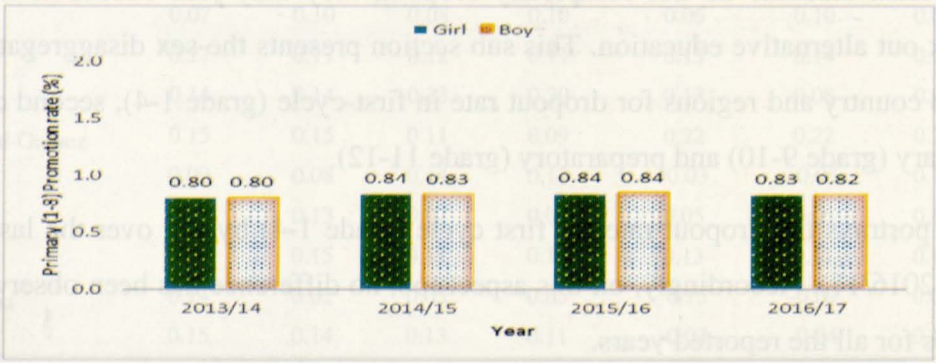
Table 6-18: Second cycle (5-8) promotion rate by sex, region and years

	2013/14		2014/15		2015/16		2016/17	
Region	Girl	Boy	Girl	Boy	Girl	Boy	Girl	Boy
Country Total	0.82	0.82	0.87	0.87	0.81	0.84	0.86	0.86
Tigray	0.91	0.91	0.93	0.93	0.95	0.95	0.94	0.92
Afar	1.03	1.36	0.52	0.53	0.94	0.95	0.72	0.80
Amhara	0.81	0.80	0.89	0.87	0.71	0.69	0.89	0.87
Oromia	0.81	0.79	0.86	0.88	0.88	0.89	0.82	0.84
Somali	0.81	0.81	0.59	0.60	0.73	0.80	0.91	0.90
Benishangul-Gumuz	0.81	0.84	0.85	0.82	0.99	1.02	0.86	0.84
SNNP	0.78	0.77	0.87	0.89	0.92	0.93	0.81	0.82
Gambela	0.85	0.90	0.91	0.91	0.91	0.95	0.82	0.84
Harari	0.90	0.91	0.92	0.90	1.05	1.00	0.91	0.92
Addis Ababa	0.79	0.83	0.97	0.93	1.04	1.00	0.97	0.98
Dire Dawa	0.81	0.80	0.87	0.87	1.10	1.08	0.88	0.86

(Source, MOE, EMIS: 2013/14, 2014/15, 2015/16, and 2016/17)

Figure 6-19 highlights the promotion rate for the complete primary cycle (1-8 grades) by sex over the last four years (2013/14 to 2016/17). Accordingly, pertaining to the promotion rate, there appeared to be no difference between the two sexes for the years 2013/14 and 2015/16. Girls out number boys marginally (0.01%) in both 2014/15 and 2016/17.

Figure 6-19: Primary (1-8) promotion rate by sex and years, Country Total



(Source, MOE, EMIS: 2013/14, 2014/15, 2015/16, and 2016/17)

Table 6-19 exhibits the statistics of regional sex-disaggregated primary cycle (grade 1-8) promotion rate of the last four years (2013/14 to 2016/17). Once again, there appeared to be high promotion rate for boys in the primary cycle across all the regions and reported years (2013/14 to 2016/17), except Tigray and Amhara regions. Moreover, in 2017/18, the primary cycle (1-8) promotion rate for girls appeared to be lowest in Afar (0.66%), the highest is observed in Addis Ababa (0.98%) followed by Tigray (0.95%) and Somali (0.94%) regions.

Table 6-19: Primary (1-8) promotion rate by sex, region and years

	2013/14		2014/15		2015/16		2016/17	
Region	Girl	Boy	Girl	Boy	Girl	Boy	Girl	Boy
Country Total	0.80	0.80	0.84	0.83	0.84	0.84	0.83	0.82
Tigray	0.93	0.92	0.94	0.93	0.95	0.95	0.95	0.93
Afar	0.87	1.06	0.49	0.46	0.79	0.80	0.66	0.70
Amhara	0.81	0.78	0.87	0.84	0.83	0.80	0.88	0.86
Oromia	0.77	0.76	0.82	0.83	0.83	0.84	0.79	0.80
Somali	0.84	0.85	0.65	0.67	0.83	0.88	0.94	0.91
Benishangul-Gumuz	0.80	0.81	0.76	0.76	0.81	0.82	0.78	0.78
SNNP	0.75	0.75	0.83	0.84	0.90	0.92	0.78	0.79
Gambela	0.79	0.84	0.84	0.84	0.89	0.91	0.78	0.78
Harari	0.74	0.76	0.76	0.76	0.85	0.86	0.81	0.83
Addis Ababa	0.82	0.89	0.95	0.93	1.03	0.98	0.98	0.98
Dire Dawa	0.78	0.78	0.80	0.82	1.02	1.02	0.83	0.83

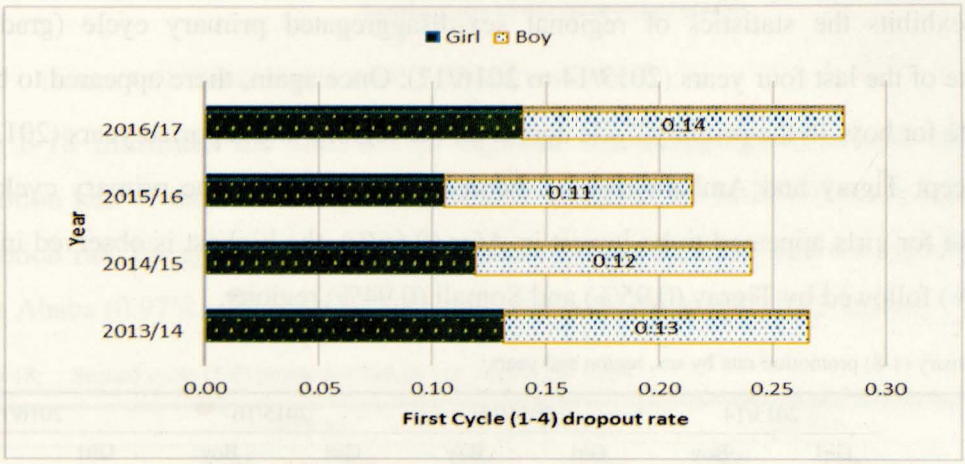
(Source, MOE, EMIS: 2013/14, 2014/15, 2015/16, and 2016/17)

Dropout Rate

The dropout rate is a measure, typically by grade, of those who left formal schooling the previous year. In most cases, it is calculated as the remainder of students after subtracting those who have repeated and those who have been promoted to the next grade. As many countries have discovered, often students do not completely dropout, they may join education several years later, or seek out alternative education. This sub section presents the sex disaggregated statistics pertaining to country and regions for dropout rate in first-cycle (grade 1-4), second cycle (grade 5-8), secondary (grade 9-10) and preparatory (grade 11-12).

Figure 6-20 portrays the dropout rate for first cycle (grade 1-4) by sex over the last four years (2013/14 to 2016/17). Accordingly, on this aspect too, no difference has been observed between the two sexes for all the reported years.

Figure 6-20: First Cycle (1-4) dropout rate by sex and years, Country Total



(Source, MOE, EMIS: 2013/14, 2014/15, 2015/16, and 2016/17)

Table 6-20 presents the sex-disaggregated statistics of first cycle (grade 1-4) dropout rate for the last four years (2013/14 to 2016/17). There appeared to be relatively higher dropout rate for boy students in the primary first cycle (1-4), across all the regions and reported years except in Oromia and Harari regions. In 2017/18, in the primary first cycle (1-4) the least dropout rate for girls is appeared in Addis Ababa (0.01%) City Administration, and the highest dropout rate is observed in Afar (0.29%) followed by Oromia (0.17%). Drop out becomes negative regions in Afar in 2013/14, SNNP in 2015/16, and in Addis Ababa City Administration and Dire Dawa Administrations in 2015/16. This may be happened due to double registration (a student may register in two nearby schools) and data quality problems in roster and attendance sheets.

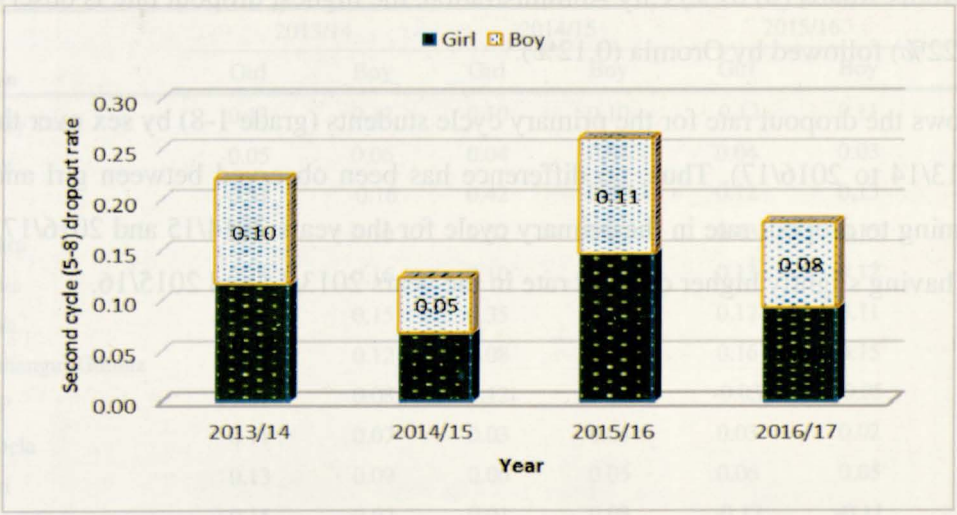
Table 6-20: First cycle (1-4) dropout rate by sex, region and years

	2013/14		2014/15		2015/16		2016/17	
Region	Girl	Boy	Girl	Boy	Girl	Boy	Girl	Boy
Country Total	0.13	0.13	0.12	0.12	0.11	0.11	0.14	0.14
Tigray	0.05	0.06	0.04	0.05	0.04	0.04	0.04	0.05
Afar	0.04	-0.08	0.43	0.49	0.16	0.17	0.29	0.27
Amhara	0.07	0.10	0.08	0.10	0.06	0.10	0.09	0.10
Oromia	0.17	0.17	0.12	0.11	0.15	0.14	0.17	0.16
Somali	0.14	0.14	0.33	0.30	0.13	0.08	0.05	0.09
Benishangul-Gumuz	0.15	0.15	0.11	0.09	0.22	0.22	0.13	0.13
SNNP	0.09	0.08	0.14	0.13	-0.03	-0.05	0.14	0.14
Gambela	0.16	0.13	0.07	0.09	0.05	0.05	0.16	0.19
Harari	0.19	0.15	0.11	0.10	0.13	0.11	0.16	0.13
Addis Ababa	0.14	0.02	0.05	0.05	-0.15	-0.09	0.01	0.00
Dire Dawa	0.15	0.14	0.13	0.11	-0.03	-0.04	0.13	0.11

(Source, MOE, EMIS: 2013/14, 2014/15, 2015/16, and 2016/17)

Figure 6-21 explores the dropout rate for the second cycle students (grade 5-8) by sex over the last four years (2013/14 to 2016/17). Accordingly, across all the reported years, girl students are appeared to be maintaining higher dropout rate than boys.

Figure 6-21: Second cycle (5-8) dropout rate by sex and years, Country Total



(Source, MOE, EMIS: 2013/14, 2014/15, 2015/16, and 2016/17)

Table 6-21: Second cycle (5-8) dropout rate by sex, region and Years

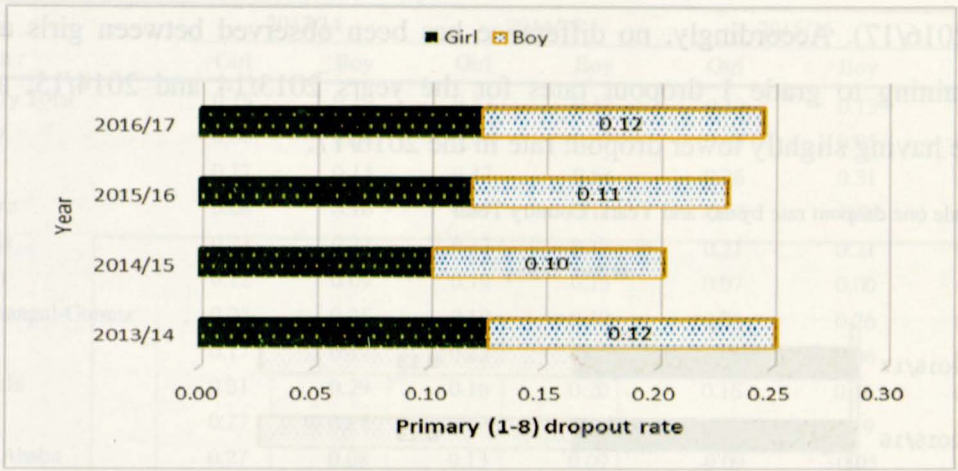
Region	2013/14		2014/15		2015/16		2016/17	
	Girl	Boy	Girl	Boy	Girl	Boy	Girl	Boy
Country Total	0.12	0.10	0.07	0.05	0.15	0.11	0.09	0.08
Tigray	0.07	0.06	0.04	0.03	0.03	0.02	0.04	0.04
Afar	-0.11	-0.44	0.41	0.41	-0.02	-0.03	0.22	0.14
Amhara	0.11	0.11	0.06	0.06	0.25	0.27	0.08	0.09
Oromia	0.13	0.13	0.07	0.03	0.08	0.06	0.12	0.09
Somali	0.18	0.18	0.41	0.40	0.27	0.20	0.09	0.10
Benishangul-Gumuz	0.11	0.08	0.01	0.01	-0.04	-0.08	0.03	0.03
SNNP	0.09	0.08	0.06	0.04	-0.04	-0.06	0.09	0.09
Gambela	0.04	0.00	-0.03	-0.03	0.01	-0.02	0.07	0.07
Harari	-0.01	-0.04	-0.06	-0.06	-0.12	-0.08	0.02	-0.01
Addis Ababa	0.17	0.12	-0.03	0.01	-0.19	-0.15	-0.01	-0.02
Dire Dawa	0.08	0.08	-0.01	-0.02	-0.17	-0.15	0.02	0.03

(Source, MOE, EMIS: 2013/14, 2014/15, 2015/16, and 2016/17)

Table 6-21 highlights the statistics of second cycle (grade 5-8) dropout rate by sex, for the last four years (2013/14 to 2016/17). In general, there appeared to be relatively higher dropout rate for girl students in the second cycle (5-8), across all the regions and reported years (2013/14 to 2016/17). Specifically, in 2016/17, while in the second cycle (5-8) the least dropout rate for girls is appeared in Addis Ababa (-0.01%) City Administration, the highest dropout rate is observed in Afar region (0.22%) followed by Oromia (0.12%).

Figure 6-22 shows the dropout rate for the primary cycle students (grade 1-8) by sex over the last four years (2013/14 to 2016/17). Thus, no difference has been observed between girl and boy students, pertaining to dropout rate in the primary cycle for the years 2014/15 and 2016/17, girls appeared to be having slightly higher dropout rate in the years 2013/14 and 2015/16.

Figure 6-22 : Primary (1-8) dropout rate by sex and years, Country Total



(Source, MOE, EMIS: 2013/14, 2014/15, 2015/16, and 2016/17)

Table 6-22 draws the sex-disaggregated statistics of primary cycle (grade 1-8) dropout rate for the last four years (2013/14 to 2016/17). There appeared to be relatively higher dropout rate for girl students in the primary level (1-8) in the majority of the regions and reported years. In 2016/17, there is no dropout for girls in Addis Ababa City Administration, the highest dropout rate is observed in Afar region (0.27%) followed by Oromia (0.15%) region.

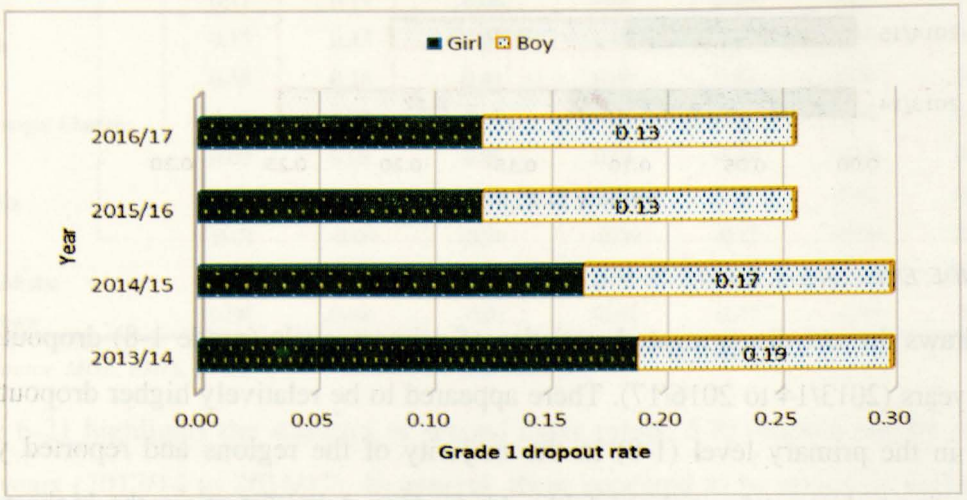
Table 6-22: Primary (1-8) dropout rate by sex, region and years

	2013/14		2014/15		2015/16		2016/17	
Region	Girl	Boy	Girl	Boy	Girl	Boy	Girl	Boy
Country Total	0.13	0.12	0.10	0.10	0.12	0.11	0.12	0.12
Tigray	0.05	0.06	0.04	0.04	0.04	0.03	0.04	0.05
Afar	0.01	-0.16	0.42	0.47	0.12	0.13	0.27	0.24
Amhara	0.08	0.10	0.07	0.09	0.13	0.15	0.09	0.10
Oromia	0.16	0.16	0.10	0.08	0.13	0.12	0.15	0.14
Somali	0.15	0.15	0.35	0.33	0.17	0.11	0.06	0.09
Benishangul-Gumuz	0.14	0.12	0.08	0.07	0.16	0.15	0.09	0.09
SNNP	0.09	0.08	0.12	0.10	-0.03	-0.05	0.12	0.12
Gambela	0.11	0.07	0.03	0.04	0.03	0.02	0.12	0.14
Harari	0.13	0.09	0.06	0.05	0.06	0.05	0.11	0.09
Addis Ababa	0.15	0.07	0.01	0.03	-0.17	-0.11	0.00	-0.01
Dire Dawa	0.13	0.12	0.08	0.06	-0.07	-0.08	0.09	0.08

(Source, MOE, EMIS: 2013/14, 2014/15, 2015/16, and 2016/17)

Figure 6-23 reveals the dropout rate for the grade 1 students by sex for the last four years (2013/14 to 2016/17). Accordingly, no difference has been observed between girls and boys students, pertaining to grade 1 dropout rates for the years 2013/14 and 2014/15, and girls appeared to be having slightly lower dropout rate in the 2016/17.

Figure 6-23: Grade one dropout rate by sex and Years, Country Total



(Source, MOE, EMIS: 2013/14, 2014/15, 2015/16, and 2016/17)

Table 6-23 highlights the statistics of grade 1 dropout rate by sex, for the last four years (2013/14 to 2016/17). There appeared to be relatively higher dropout rate for girls in the grade 1, in the majority of the regions and reported years. In 2016/17, least grade 1 dropout rate for girls is appeared in Tigray (0.06%) region, and the highest dropout rate is observed in Afar (0.35%) and Gambela (0.31%) regions.

Table 6-23: Grade one dropout rate by sex, region and Years

Region	2013/14		2014/15		2015/16		2016/17	
	Girl	Boy	Girl	Boy	Girl	Boy	Girl	Boy
Country Total	0.19	0.19	0.17	0.17	0.12	0.13	0.12	0.13
Tigray	0.06	0.08	0.06	0.07	0.05	0.05	0.06	0.08
Afar	0.17	0.14	0.47	0.54	0.26	0.31	0.35	0.36
Amhara	0.08	0.10	0.09	0.11	-0.06	-0.04	0.08	0.08
Oromia	0.23	0.23	0.17	0.17	0.21	0.21	0.22	0.22
Somali	0.12	0.09	0.19	0.13	0.07	0.00	0.10	0.11
Benishangul-Gumuz	0.25	0.25	0.19	0.19	0.26	0.26	0.26	0.28
SNNP	0.17	0.17	0.23	0.23	0.07	0.06	0.16	0.17
Gambela	0.31	0.29	0.16	0.20	0.16	0.16	0.31	0.34
Harari	0.27	0.21	0.17	0.19	0.22	0.19	0.21	0.19
Addis Ababa	0.27	0.08	0.13	0.09	-0.09	-0.05	0.08	0.05
Dire Dawa	0.24	0.23	0.22	0.22	0.14	0.13	0.23	0.23

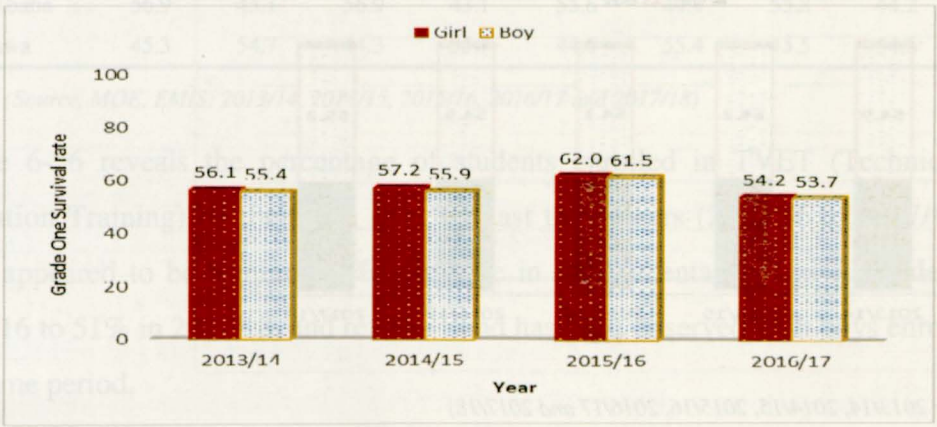
(Source, MOE, EMIS: 2013/14, 2014/15, 2015/16, and 2016/17)

Survival Rate to Grade 5

The survival rate to grade 5 is used to estimate the percentage of students who will complete the first cycle of primary education. The completion of at least 4 years of schooling is considered as a pre-requisite for a sustainable level of literacy. Survival rates approaching 100% indicate a high level of retention and low incidence of dropouts

Figure 6-24 demonstrates the survival rate for grade 1 by sex for the last four years (2013/14 to 2016/17). As can be seen from the figure, survival rate for girls in grade 1 is a little bit higher than that for boys. However, there appeared to be some decrease in the survival rate from 55.4% for boys and 56.1% for girls in 2013/14 to 53.7% for boys and 54.2% for girls in 2016/17.

Figure 6-24: Grade one survival rate by sex and years, Country Total



(Source, MOE, EMIS: 2013/14, 2014/15, 2015/16, and 2016/17)

Moreover, for the regions, Table 6-24 presents the statistics of grade 1 survival rate by sex and year (2013/14 to 2016/17). There appeared to be a fluctuation in the grade 1 survival rate both for boys and girls across the regions, between 2013/14 and 2016/17. In 2016/17, the highest survival rate for both sexes is found to be in Addis Ababa (102.5% for boys and 96.4% for girls).

Table 6-24: Grade one survival rate by sex, region and years

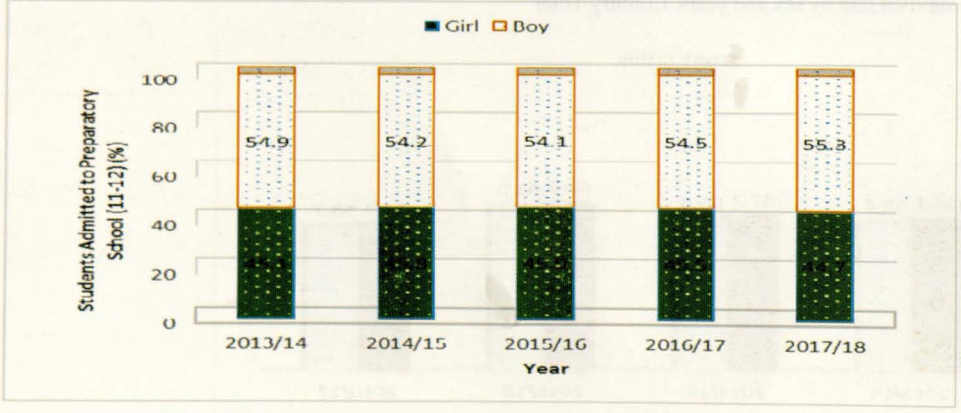
Region	2013/14		2014/15		2015/16		2016/17	
	Girl	Boy	Girl	Boy	Girl	Boy	Girl	Boy
Country Total	56.1	55.4	57.2	55.9	62.0	61.5	54.2	53.7
Tigray	83.2	79.2	81.5	79.0	85.9	84.4	83.9	81.0
Afar	90.6	181.9	8.1	5.3	52.2	51.8	24.4	27.6
Amhara	71.7	62.4	70.1	62.7	75.1	63.1	68.0	63.3
Oromia	46.3	46.6	56.6	58.1	54.6	55.4	47.4	49.7
Somali	51.5	52.7	19.1	22.1	52.4	67.4	83.4	68.8
Benishangul-Gumuz	69.2	72.5	59.3	60.6	120.0	130.4	58.7	58.1
SNNP	54.7	55.5	53.9	55.8	33.2	34.1	52.0	52.7
Gambela	49.7	59.0	67.8	61.8	82.2	79.2	50.0	43.1
Harari	43.4	51.7	57.1	60.0	58.9	63.5	49.8	56.1
Addis Ababa	57.9	94.4	81.3	79.2	188.2	145.4	96.4	102.5
Dire Dawa	53.1	54.5	54.2	62.3	125.4	128.2	57.5	63.6

(Source, MOE, EMIS: 2013/14, 2014/15, 2015/16, and 2016/17)

6.3. Students and Teachers

Attempts have been made to explore the gender issues pertaining to the domain of students and teachers in preparatory, TVET, higher education. Accordingly, sex disaggregated data pertaining to the students and teachers at such institutions are obtained from the EMIS of the MoE.

Figure 6-25: Percentage of students admitted to preparatory school (11-12) by sex and years, Country Total



(Source, MOE, EMIS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

Figure 6-25 illustrates the percentage of students who are admitted to preparatory school (grade 11-12) by sex, for the last five years (2013/14 to 2017/18). Boys get more admission than girls to preparatory school, across all the reporting years. Specifically, while a minor increase in the boys' admissions to preparatory school is observed between 2013/14 and 2017/18 (54.9% to 55.3%), and girls' participation decreased from 45.1% to 44.7% during the same period.

Table 6-25 presents the statistics of regional sex-disaggregated with respect to admission to preparatory school (11-12 of the last five years (2013/14 to 2017/18). More boy than girls admitted to the preparatory schools across all the regions, except Addis Ababa City Administration across 2014/15 to 2017/18. Moreover, in 2017/18, the admitted girls to the preparatory school (grade 11-12) appeared to be lowest in Gambela region (22%), and the highest is observed in Addis Ababa City Administration (56%) followed by Harari (49%) region.

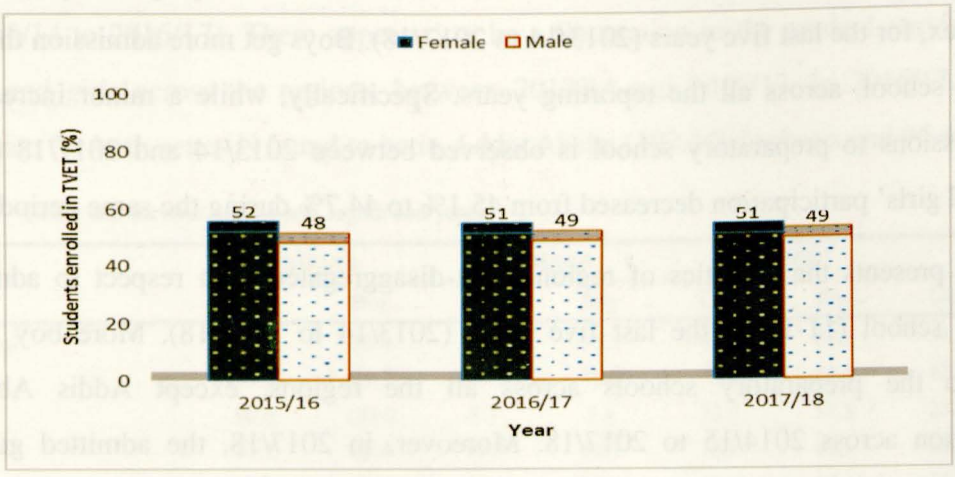
Table 6-25: Percentage of students admitted to preparatory school (11-12) by sex, region and years

	2013/14		2014/15		2015/16		2016/17		2017/18	
Region	Girl	Boy	Girl	Boy	Girl	Boy	Girl	Boy	Girl	Boy
Country Total	45.1	54.9	45.8	54.2	45.9	54.1	45.5	54.5	44.7	55.3
Tigray	51.1	48.9	49.4	50.6	46.7	53.3	45.0	55.0	43.8	56.2
Afar	39.2	60.8	34.4	65.6	33.0	67.0	35.3	64.7	38.7	61.3
Amhara	45.9	54.1	45.9	54.1	47.7	52.3	47.0	53.0	47.4	52.6
Oromia	41.7	58.3	44.3	55.7	43.9	56.1	44.0	56.0	42.2	57.8
Somali	29.4	70.6	31.8	68.2	33.0	67.0	33.7	66.3	35.6	64.4
Benishangul-Gumuz	41.9	58.1	45.6	54.4	46.1	53.9	45.3	54.7	45.3	54.7
SNNP	43.3	56.7	43.8	56.2	45.2	54.8	47.6	52.4	42.7	57.3
Gambela	20.7	79.3	23.0	77.0	22.8	77.2	20.5	79.5	22.2	77.8
Harari	46.8	53.2	48.2	51.8	50.3	49.7	50.0	50.0	48.9	51.1
Addis Ababa	56.9	43.1	56.9	43.1	55.6	44.4	55.8	44.2	55.9	44.1
Dire Dawa	45.3	54.7	44.3	55.7	44.6	55.4	45.5	54.5	46.9	53.1

(Source, MOE, EMIS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

Figure 6-26 reveals the percentage of students enrolled in TVET (Technical and Vocation Education Training) by their sex, over the last three years (2015/16 to 2017/18). Accordingly, there appeared to be a minor (1%) decrease in the percentage of girls' students from 52% in 2015/16 to 51% in 2017/18, and reverse trend has been observed with boys enrolled in TVET for the same period.

Figure 6-26: Percentage of students enrolled in TVET by sex, Country Total



(Source, MOE, EMIS: 2015/16, 2016/17 and 2017/18)

Table 6-26 highlights the sex-disaggregated statistics of students enrolled in TVET, over the last three years (2015/16 to 2017/18). Once again, there appeared to be relatively higher enrollments for male in the TVET, as compared to female, in Afar, Somali and Gambela while in Amhara region female outnumbered male between 2015/16and 2017/18). In 2017/18, however, the least percentage of female enrollments in TVET is appeared in Afar (40%) and the highest is in Amhara region (55%).

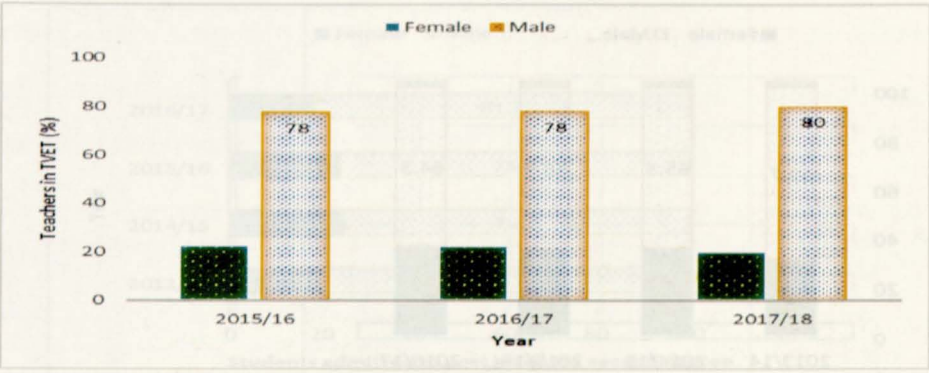
Table 6-26: Percentage of students enrolled in TVET by sex, region and years

	2015/16		2016/17		2017/18	
Region	Female	Male	Female	Male	Female	Male
Country Total	52	48	51	49	49	49
Tigray	49	51	49	51	51	48
Afar	40	60	40	60	60	60
Amhara	56	44	56	44	44	45
Oromia	51	49	49	51	51	50
Somali	45	55	45	55	55	55
Benishangul-Gumuz	59	41	59	41	41	51
SNNP	50	50	50	50	50	48
Gambela	45	55	45	55	55	55
Harari	53	47	49	51	51	53
Addis Ababa	50	50	50	50	50	50
Dire Dawa	50	50	50	50	50	49

(Source, MOE, EMIS: 2015/16, 2016/17 and 2017/18)

Figure 6-27 depicts the percentage of teachers in TVET by their sexes over the last three years (2015/16 to 2017/18). Accordingly, female teachers are much less than male teachers across all the three years, and male teachers increased from 78% in 2015/16 to 80% in 2017/18.

Figure 6-27: Percentage of teachers in TVET by sex and year, Country Total



(Source, MOE, HMIS: 2015/16, 2016/17 and 2017/18)

With respect to the percentage of teachers in TVET, Table 6-27 demonstrates the regional sex-disaggregated statistics over the last three years (2015/16 to 2017/18). In general, there appeared to be relatively more male teachers in the TVET, as compared to female, across all the regions and reported year. Specifically, in 2017/18, the least percentage of female teachers in TVET is appeared in SNNP (11%) and followed by Gambela (13%) regions, while the highest is reported in Dire Dawa Administration (43%) and followed by Addis Ababa (24%) City Administration.

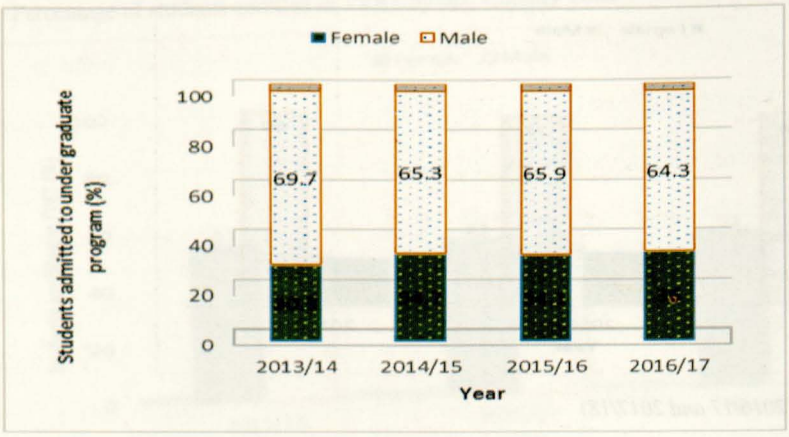
Table 6-27: Percentage of Teachers in TVET by sex, region and year

	2015/16		2016/17		2017/18	
Region	Female	Male	Female	Male	Female	Male
Country Total	22	78	22	78	20	80
Tigray	27	73	20	80	19	81
Afar	14	86	14	86	14	86
Amhara	22	78	19	81	20	80
Oromia	18	82	20	80	18	82
Somali	18	82	18	82	18	82
Benishangul-Gumuz	24	76	24	76	19	81
SNNP	39	61	39	61	11	89
Gambela	14	86	14	86	13	87
Harari	19	81	17	83	14	86
Addis Ababa	24	76	24	76	24	76
Dire Dawa	9	91	9	91	43	57

(Source, MOE, EMIS: 2015/16, 2016/17 and 2017/18)

Figure 6-28 illustrates the percentage of students admitted to undergraduate program by sex, over the last four years (2013/14 to 2016/17). Accordingly, there appeared to some increase in the admission of girls between 2013/14 (30.3%) and 2016/17 (36%), and reverse trend has been observed for boy students admitted to undergraduate program during that time.

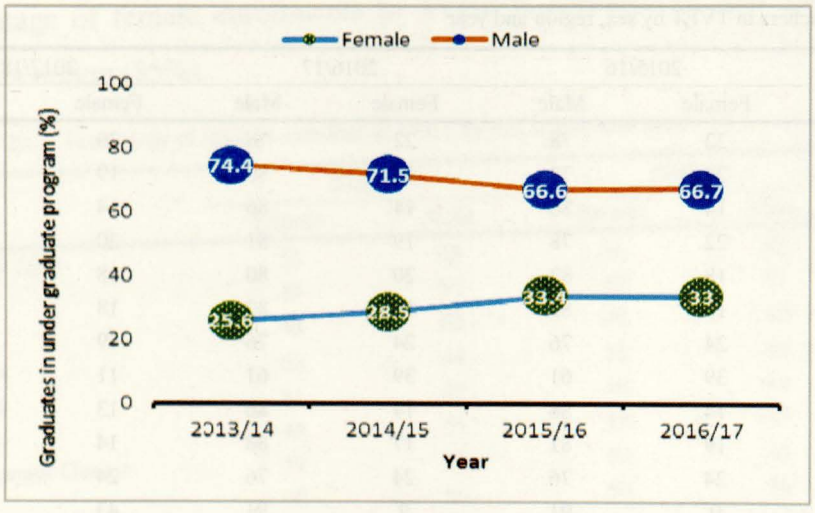
Figure 6-28: Percent of students admitted to under graduate program by sex and year, Country Total



(Source, MOE, EMIS: 2013/14, 2014/15, 2015/16, and 2016/17)

Figure 6-29 highlights the percentage of graduates in undergraduate program by their sexes over the last four years (2013/14 to 2016/17). Accordingly, male graduates decreased from 74.4% in 2013/14 to 66.7% in 2016/17, whereas female graduates are reported with increasing trend) in undergraduate program, but remained much less than male graduate in the same period.

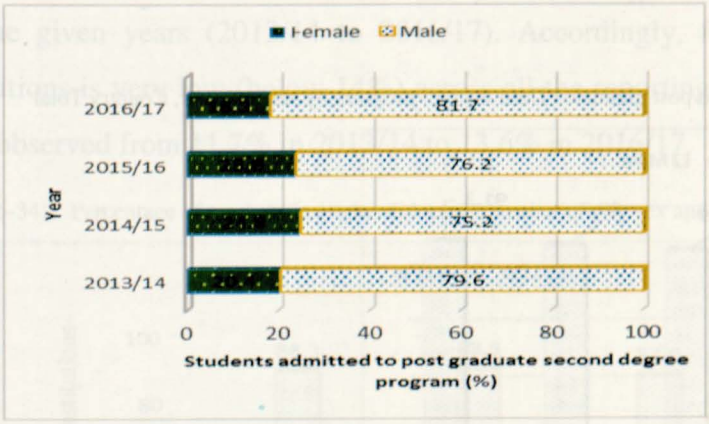
Figure 6-29: Percent of graduates in under graduate program by sex and year, Country Total



(Source, MOE, EMIS: 2013/14, 2014/15, 2015/16, and 2016/17)

Figure 6-30 displays the percentage of students admitted to postgraduate (second-degree) program by their sexes over the last four years (2013/14 to 2016/17). Accordingly, there appeared to be few female postgraduates (below 25%), and minor increase has been noticed in the admission of male postgraduate from 79.6% in 2013/14 to 81.7% in 2016/17.

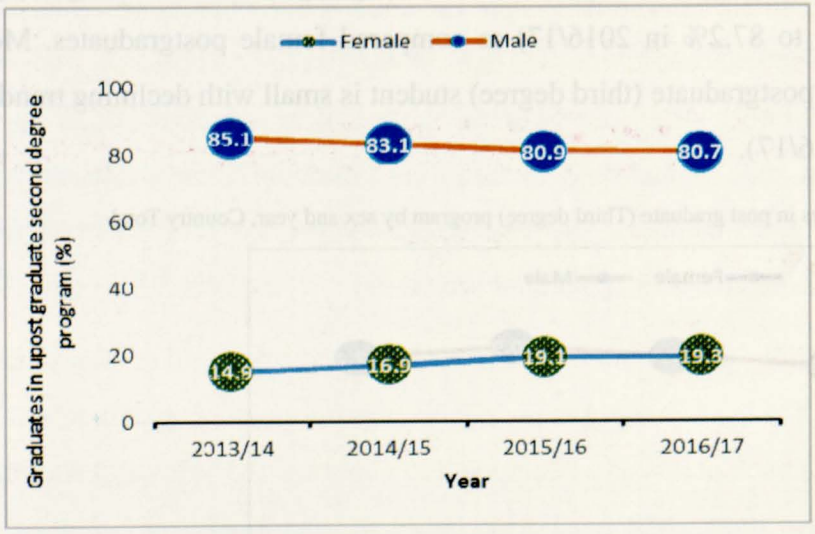
Figure 6-30: Percent of students admitted to post graduate (second degree) program by sex and year, Country Total



(Source, MOE, EMIS: 2013/14, 2014/15, 2015/16, and 2016/17)

Figure 6-31 presents the percentage of graduates of postgraduate (second-degree) program by their sexes over the last four years (2013/14 to 2016/17). Accordingly, there appeared to be an increasing trend in the percentage of female graduates in the postgraduate program (from 14.9% in 2013/14 to 19% in 2016/17), their representation is still below 20% against male postgraduates in the country.

Figure 6-31: Percent of graduates in post graduate (second degree) program by sex and year, Country Total

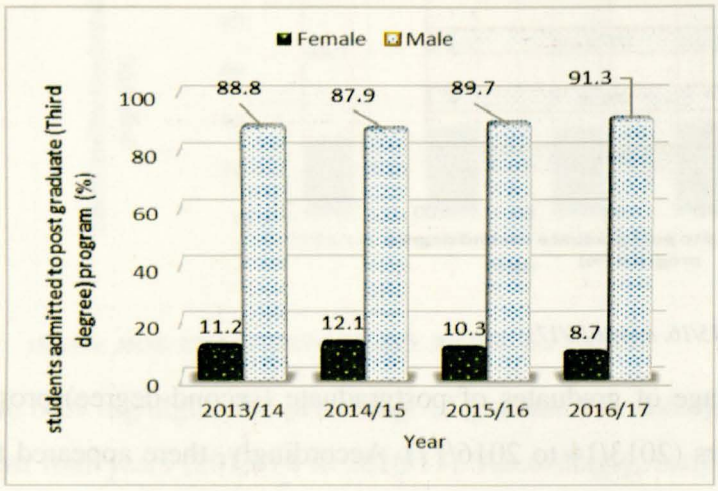


(Source, MOE, EMIS: 2013/14, 2014/15, 2015/16, and 2016/17)

Figure 6-32 explores the percentage of students admitted to postgraduate (third degree) program by their sexes over the last four years (2013/14 to 2016/17). As can be seen from the figure, there appeared to be an increasing trend in the percentage of male students admitted to postgraduate (third degree) programs (from 88.8% in 2013/14 to 91.3% in 2016/17). A decrease has been observed for female students in postgraduate (third degree) programs over the same period.

Moreover, women admission in postgraduate (third degree) program is appeared to be very small and range bound (9-11%).

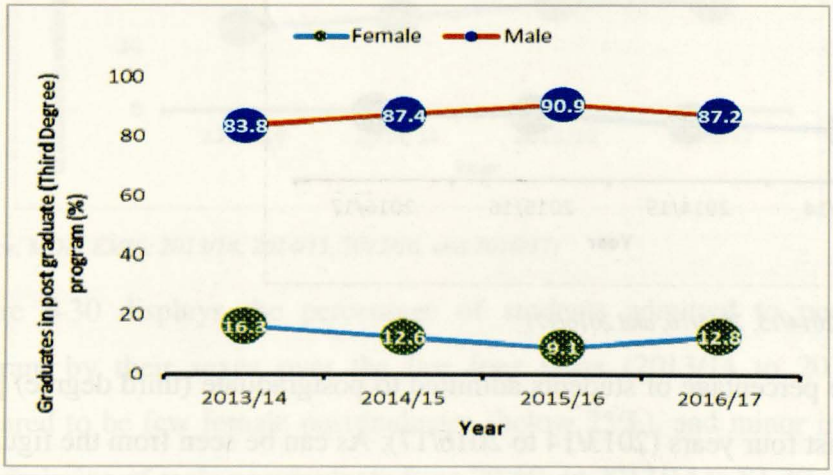
Figure 6-32: Percent of students admitted to post graduate (Third degree) program by sex and year, Country Total



(Source, MOE, EMIS: 2013/14, 2014/15, 2015/16, and 2016/17)

Figure 6-33 illustrates the percentage of graduates in postgraduate (third degree) program by their sexes over the last four years (2013/14 to 2016/17). Accordingly, there appeared to be an increasing trend in the percentage of male graduates in the postgraduate (third degree) program (from 83.8% in 2013/14 to 87.2% in 2016/17) as compared female postgraduates. Moreover, women representation as postgraduate (third degree) student is small with declining trend (16.3% in 2013/14 to 13% in 2016/17).

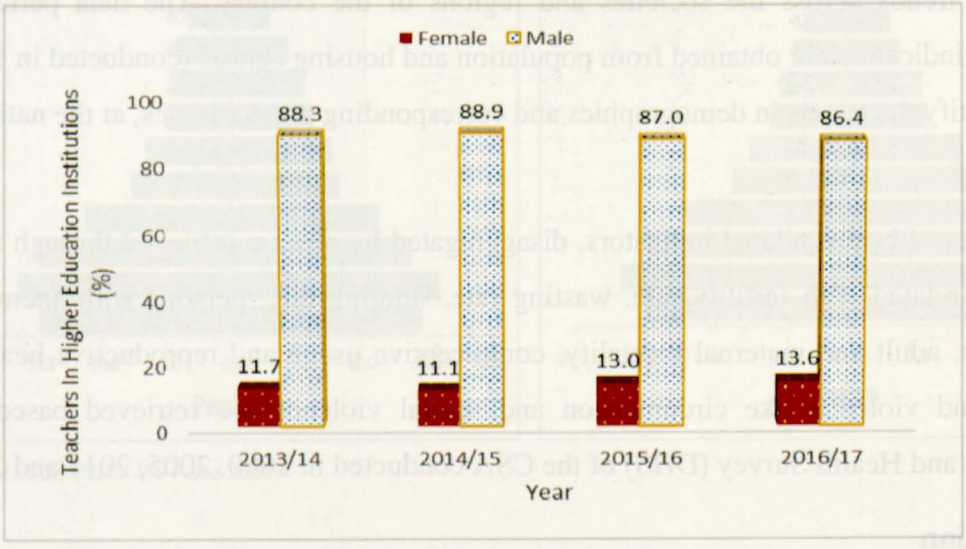
Figure 6-33: Percent of graduates in post graduate (Third degree) program by sex and year, Country Total



(Source, MOE-EMIS: 2013/14, 2014/15, 2015/16, and 2016/17)

Figure 6-34 displays the sex-disaggregated statistics of teachers in higher education institutions for the given years (2013/14 to 2016/17). Accordingly, female teacher in higher education institutions is very low (below 14%) across all the reporting years, though a minor increase has been observed from 11.7% in 2013/14 to 13.6% in 2016/17.

Figure 6-34: Percentage of teachers in Higher Education Institutions by sex and year, Country Total



(Source, MOE, EMIS: 2013/14, 2014/15, 2015/16, and 2016/17)

7. Demography and Health

This chapter presents the statistical sex disaggregated data pertaining to demography and health related indicators of female and male both at the country and at regional levels. Demographic/population related indicators provide us with background information on demographic trends across the societies and regions of the country. The data pertaining to demographic indicators are obtained from population and housing census (conducted in 1994 and 2007) to identify the trends in demographics and corresponding gender issues, at the national and regional levels.

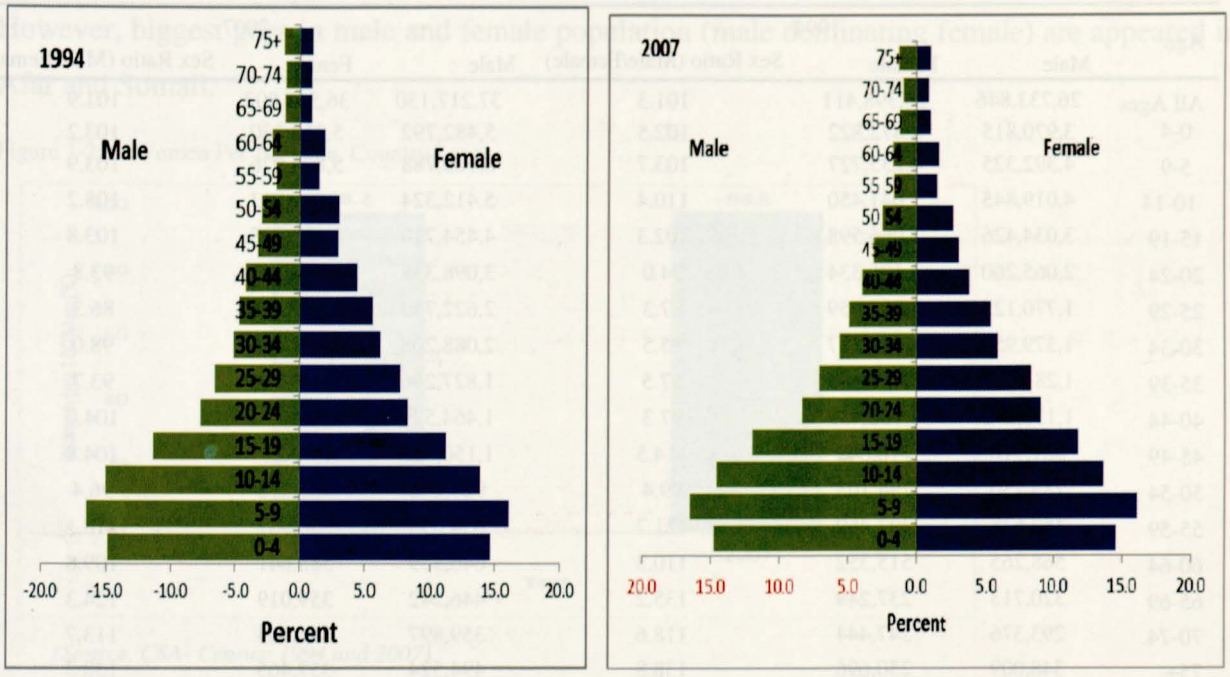
Large volumes of health related indicators, disaggregated by sex are retrieved through the DHS survey. Data related with fertility rate, wasting rate, stunting rate, persons with anemia, child immunization, adult and maternal mortality, contraceptive usage and reproductive health, HIV prevalence and violence like circumcision and sexual violence are retrieved based on the Demographic and Health Survey (DHS) of the CSA conducted in 2000, 2005, 2011 and 2015.

7.1. Population

Population data gather pertinent information about the socio-demographic characteristics of the household population. Such information throws light on the living conditions of the population, and provides socio-economic characteristics of the households and respondents surveyed in terms of sex, educational status, household facilities etc., through household composition and population data. This section, therefore, provides sex-disaggregated assessment of population characteristics in the light of Ethiopian population census data, at national and regional level.

Figure 7.1 shows Ethiopia's population distribution by age groups and census years of 1994 and 2007. Accordingly, for the reported years, higher proportion of population with younger ages (below 20 years) has been observed as compared to older age (65 years and above) for both sexes. In the both census, the highest population fall in the age bracket of 5-9 years, and the lowest appeared to be in the age group of 70-74 years. The young female population is growing almost equal to their male counterparts, though in older age groups less female against male are reported.

Figure 7-1: Population Pyramid of Ethiopia, 1994 and 2007



(Source: CSA PHC, 1994 and 2007)

Moreover, there appeared to be an increase in young age population groups from 1994 and 2007 (Table 7.1). The male-female sex-ratio is reported higher for the age groups belonging to less than 20 years and above 55 years, for both the census years. This further indicates an increasing population trend between the two censuses. Moreover, growth in female population in middle age groups (30-44 years) is obsrved as compared to male. however, a gradual decline in female population is observed in senior age groups (above 45 years) between 1994 and 2007.

Table 7-1: Sex ratio of population by age group of Ethiopia: 1994 and 2007

Age	1994			2007		
	Male	Female	Sex Ratio (Male/Female)	Male	Female	Sex Ratio (Male/Female)
All Ages	26,733,846	26,398,411	101.3	37,217,130	36,533,802	101.9
0-4	3,970,815	3,872,822	102.5	5,482,792	5,314,230	103.2
5-9	4,392,325	4,235,727	103.7	6,106,788	5,874,976	103.9
10-14	4,019,845	3,641,450	110.4	5,412,324	4,999,913	108.2
15-19	3,034,426	2,966,598	102.3	4,454,710	4,293,338	103.8
20-24	2,065,260	2,196,334	94.0	3,098,338	3,303,747	93.8
25-29	1,770,125	2,028,059	87.3	2,622,759	3,039,429	86.3
30-34	1,379,957	1,614,117	85.5	2,088,208	2,131,858	98.0
35-39	1,284,574	1,468,485	87.5	1,827,296	1,949,346	93.7
40-44	1,130,872	1,162,459	97.3	1,464,529	1,408,451	104.0
45-49	881,916	770,049	114.5	1,150,017	1,097,287	104.8
50-54	789,730	794,103	99.4	928,294	962,472	96.4
55-59	483,638	397,469	121.7	634,053	536,967	118.1
60-64	568,265	515,352	110.3	646,359	588,641	109.8
65-69	320,713	237,249	135.2	446,242	359,019	124.3
70-74	293,376	247,444	118.6	359,897	316,663	113.7
75+	348,009	250,696	138.8	494,524	357,465	138.3

(Source: CSA, PHC, 1994 and 2007)

Table 7-2: Percentage of population by sex, region and census Years

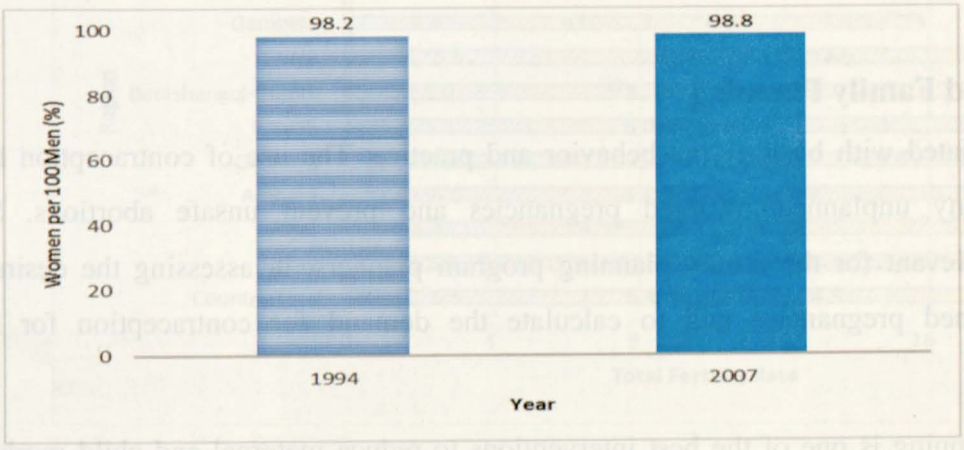
Region	1994		2007	
	Female	Male	Female	Male
Country Total	47.8	52.2	48.0	52.0
Tigray	50.7	49.3	50.9	49.1
Afar	44.2	55.8	44.4	55.6
Amhara	49.8	50.2	50.0	50.0
Oromia	49.6	50.4	49.8	50.2
Somali	44.4	55.6	44.4	55.6
Benishangul-Gumuz	49.2	50.8	49.3	50.7
SNNP	50.3	49.7	50.4	49.6
Gambela	48.0	52.0	48.4	51.6
Harari	49.7	50.3	50.2	49.8
Addis Ababa	52.4	47.6	52.8	47.2
Dire Dawa	49.8	50.2	50.2	49.8

(Source, CSA, Census: 1994 and 2007)

Table 7-2 highlights the percentage distribution of population by sex across the regions and census years. Accordingly, there remains relatively more male population than female in the regions, expect for Addis Ababa city administration, Tigray and SNNP region, whereby female population a little bit higher than male population for both census years. A general trend of

increasing female population is observed, across all the regions, between the two censuses. However, biggest gaps in male and female population (male dominating female) are appeared in Afar and Somali.

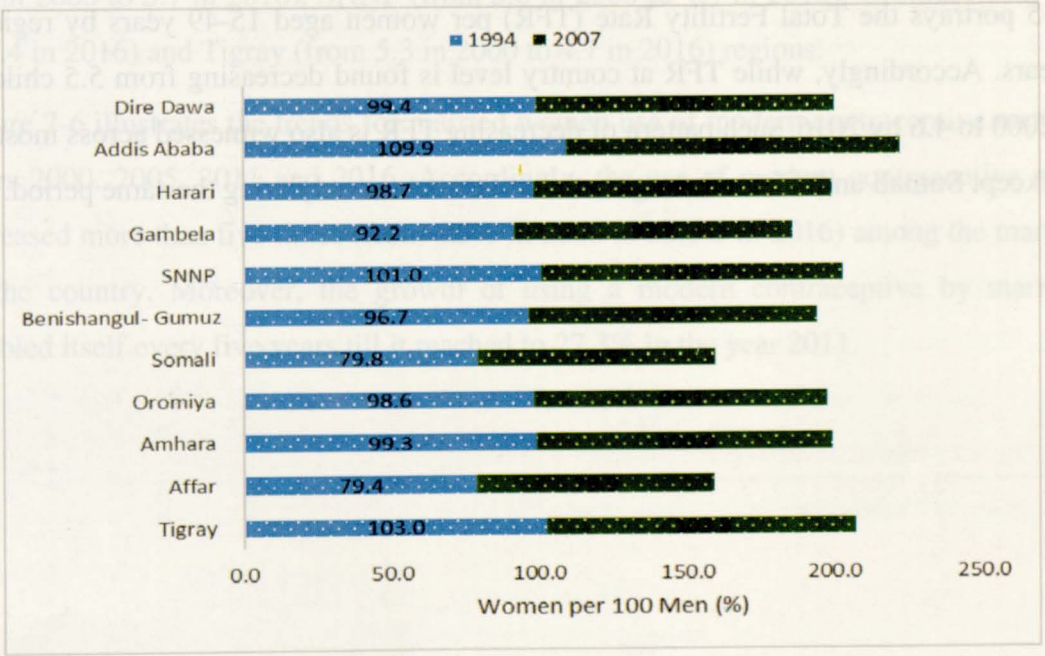
Figure 7-2: Women Per 100 Men, Country Level



(Source, CSA- Census: 1994 and 2007)

With respect to the number of women per 100 men, between the two census years (1994 and 2007), Figure 7-2 depicts a minor increase in the number of female from 98.2% in 1994 to 98.8% in 2007.

Figure 7-3: Women Per 100 Men by region and census years



(Source, CSA- Census: 1994 and 2007)

Similarly, figure 7-3 shows women per 100 men across the region and census years. Accordingly, Harari region (100.7) and Dire Dawa Administration (100.8) are found having more women than men population in the year 2007 than that in 1994. However, in Gambela, Benishangul-Gumuz, Somali and Afar, men population exceed women population in both census years.

7.2. Fertility and Family Planning

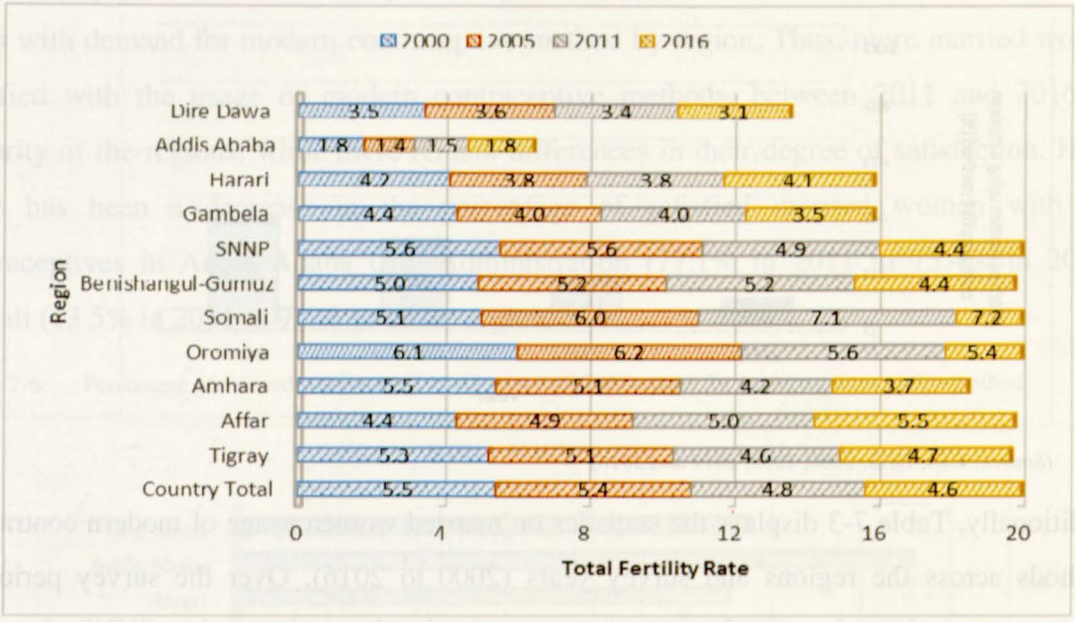
Fertility is associated with birth giving behavior and practice. The use of contraception helps women avoid any unplanned/unwanted pregnancies and prevent unsafe abortions. Such information is relevant for the family planning program planners, in assessing the desire for children, unplanned pregnancies and to calculate the demand for contraception for birth planning.

While family planning is one of the best interventions to reduce maternal and child morbidity and mortality, contraceptive prevalence and unmet need for family planning remain key indicators for measuring improvements in access to reproductive health.

By considering the above, this section presents the national and regional information on the total fertility rate, and modern contraceptive use by married women.

Figure 7-5 portrays the Total Fertility Rate (TFR) per women aged 15-49 years by region and survey years. Accordingly, while TFR at country level is found decreasing from 5.5 children in the year 2000 to 4.6 by 2016, such pattern of decreasing TFR is also witnessed across most of the regions, except Somali and Afar, where growth has been observed during the same period.

Figure 7-4: Total Fertility Rate (Age 15-49) by region

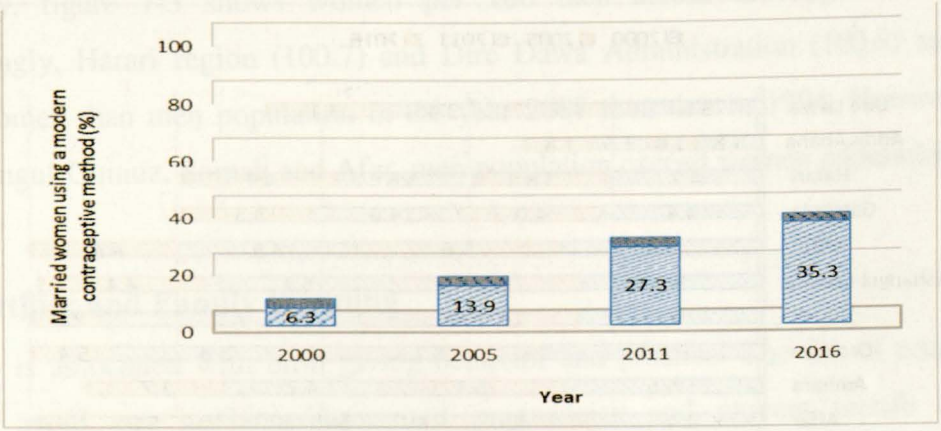


(Source: CSA, DHS: 2000, 2005, 2011 and 2016)

Specifically, in 2016, women in Addis Ababa City Administration (1.8), Dire Dawa administration (3.1) and Gambela region (3.5) maintain relatively lower TFR. However, Somali (7.2), Afar (5.5), Oromia (5.4) and Tigray (4.7) regions maintain it above the national average (4.6). Moreover, a decrease in TFR across the survey years has been observed in Amhara (from 5.5 in 2000 to 3.7 in 2016), SNNP (from 5.6 in 2000 to 4.4 in 2016), Oromia (from 6.1 in 2000 to 5.4 in 2016) and Tigray (from 5.3 in 2000 to 4.7 in 2016) regions.

Figure 7-6 illustrates the trends for married women use of modern contraceptive methods for the years 2000, 2005, 2011 and 2016. Accordingly, the use of modern contraceptive methods has increased more than five times (from 6.3% in 2000 to 35.3% in 2016) among the married women of the country. Moreover, the growth of using a modern contraceptive by married women doubled itself every five years till it reached to 27.3% in the year 2011.

Figure 7-5: Percentage of currently married women using a modern contraceptive method, Country Total



(Source: CSA, DHS: 2000, 2005, 2011 and 2016)

Additionally, Table 7-3 displays the statistics on married women usage of modern contraceptive methods across the regions and survey years (2000 to 2016). Over the survey periods, the maximum growth in the use of modern contraceptive has been observed in SNNP (from 5% in 2000 to 39.6% in 2016). However, a decreasing in modern contraceptive methods by married women is observed between 2011 and 2016 in Somali region (2.4% in 2000 to 1.4% in 2016), Addis Ababa City Administration (56.3% to 50.1%), Harari region (31.5% to 29.3%) and Dire Dawa Administration (31.7% to 29.1%).

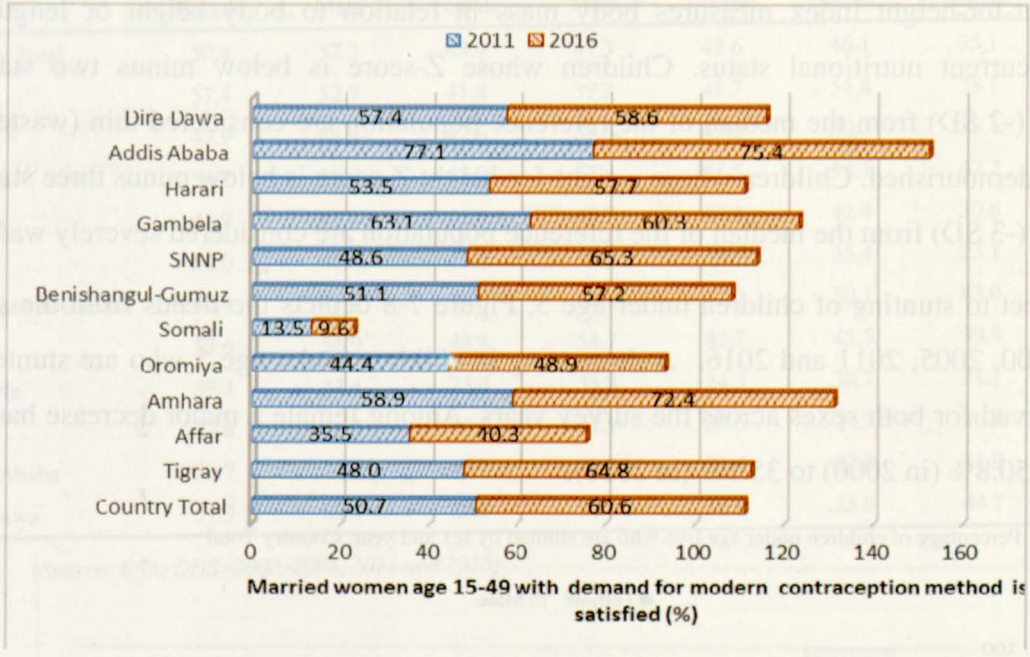
Table 7-3: Percentage of married women using a modern contraceptive method by region and year

Region	2000	2005	2011	2016
Country Total	6.3	13.9	27.3	35.3
Tigray	9.3	16.2	21.2	35.2
Afar	7.4	6.0	9.1	11.6
Amhara	6.6	15.7	33.0	46.9
Oromia	4.3	12.9	24.9	28.1
Somali	2.4	2.7	3.8	1.4
Benishangul-Gumuz	8.5	10.4	26.3	28.4
SNNP	5.0	11.4	24.7	39.6
Gambela	12.3	15.8	33.2	34.9
Harari	19.0	29.1	31.5	29.3
Addis Ababa	34.3	45.2	56.3	50.1
Dire Dawa	23.5	31.5	31.7	29.1

(Source: CSA, DHS: 2000, 2005, 2011 and 2015)

Figure 7-7 presents the statistics pertaining to the satisfaction of married women aged 15-49 years with demand for modern contraceptive method by region. Thus, more married women felt satisfied with the usage of modern contraceptive methods, between 2011 and 2016, in the majority of the regions, while there remain differences in their degree of satisfaction. However, there has been a decrease in the percentage of satisfied married women with modern contraceptives in Addis Ababa City Administration (77.1% in 2011 to 75.4% in 2016) and Somali (13.5% in 2011 to 9.6% in 2016) region.

Figure 7-6: Percentage of married women aged 15-49 with satisfied demand for modern contraception method



(Source: CSA, DHS: 2000, 2005, 2011 and 2016)

7.3. Child and Adult Nutrition

To support improved nutrition, several initiatives have been taken by the GoE. In a broader context, nutrition indicators are included in the GTP. This section deals with assessing nutritional status of children (under age 5) and adults (women and men aged 15-49 years), by considering the indicators like under 5 stunting rate, wasting rate, obese or overweight according to BMI, and anemia, both at country and regional levels.

Before discussing this subsection, it is important to give the definition of the following health indicators:

Stunting (assessed via height-for-age)

Height-for-age is a measure of linear growth retardation and cumulative growth deficits. Children whose height-for-age Z-score is below minus two standard deviations (-2 SD) from the median of the reference population are considered short for their age (stunted), or chronically undernourished. Children who are below minus three standard deviations (-3 SD) are considered severely stunted.

Wasting (assessed via weight-for-height)

The weight-for-height index measures body mass in relation to body height or length and describes current nutritional status. Children whose Z-score is below minus two standard deviations (-2 SD) from the median of the reference population are considered thin (wasted), or acutely undernourished. Children whose weight-for-height Z-score is below minus three standard deviations (-3 SD) from the median of the reference population are considered severely wasted.

With respect to stunting of children under age 5, Figure 7-8 depicts the trends from the survey data of 2000, 2005, 2011 and 2016. A decreasing in children under age 5 who are stunted has been observed for both sexes across the survey years. Among female a major decrease has been seen from 50.8% (in 2000) to 35.1% (in 2016).

Figure 7-7: Percentage of children under age five who are stunted by sex and year, Country Total



(Source: CSA, DHS: 2000, 2005, 2011 and 2016)

Moreover, Table 7-4 displays the sex-disaggregated statistics of children under 5 who are stunted across the regions. Accordingly, a decrease in the percentages of children under age 5 who are

stunted for both sexes are observed by year and across the regions, except in Benishangul-Gumuz (increased from 42.2% and 40.4% for male and female respectively in 2000 to 42.6% and 43%, respectively in 2016) and Dire Dawa Administration (from 29.1% and 31.9% for male and female respectively in 2000 to 34.1% and 44.7% respectively in 2016). However, in other regions, a more consistent decrease in the percentage of children under age 5 who are stunted for female has been observed as compared to male.

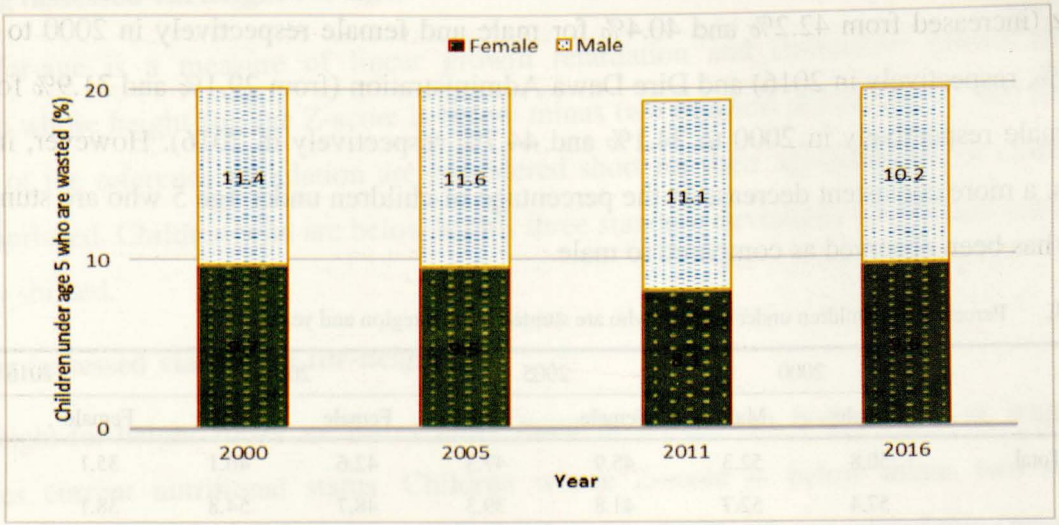
Table 7-4: Percentage of children under age five who are stunted by sex, region and year

	2000		2005		2011		2016	
Region	Female	Male	Female	Male	Female	Male	Female	Male
Country Total	50.8	52.3	45.9	47.3	42.6	46.1	35.1	41.4
Tigray	57.4	52.7	41.8	39.3	48.7	54.8	38.1	41.0
Afar	47.9	48.9	42.6	39.5	49.8	50.2	38.1	43.9
Amhara	54.7	58.8	55.9	57.4	48.5	55.1	42.2	50.0
Oromia	46.9	47.8	41.9	40.7	40.1	42.4	30.6	41.7
Somali	50.0	42.5	41.6	48.4	29.7	35.4	23.1	31.2
Benishangul-Gumuz	40.4	42.2	39.0	40.2	47.2	50.1	43.0	42.6
SNNP	53.6	56.9	48.8	54.7	42.7	45.5	39.9	37.6
Gambela	39.3	34.4	23.4	35.8	24.3	30.7	21.1	26.1
Harari	37.6	36.2	40.0	37.1	29.5	29.7	30.9	33.2
Addis Ababa	29.7	23.7	17.1	20.1	21.4	22.8	11.9	17.0
Dire Dawa	31.9	29.1	28.0	32.9	36.8	35.9	44.7	34.1

(Source: CSA, DHS: 2000, 2005, 2011 and 2016)

Figure 7-9 presents the trends for the percentage of children under five who are wasted at the country level by sex, from the survey data of 2000, 2005, 2011 and 2016. Male children who are stunted are higher than female children between 2000 and 2016 survey years.

Figure 7-9: Percentage of children under age five who are wasted by sex and year, Country Total



(Source: CSA, DHS: 2000, 2005, 2011 and 2016)

Table 7-5 presents the sex-disaggregated statistics for children under five who are wasted across the regions. Based on this, female children under five who are wasted decreased between 2000 and 2016 in Tigray (10% to 8.9%), Benishangul-Gumuz (14.3% to 11.2%), SNNP (10% to 5.6%), Gambela (17.5% to 9.9%), Addis Ababa (5.3% to 2.6%) and Dire Dawa (11.6% to 9%). In the remaining other regions, an increase in female wasted children has been observed for the same period.

Table 7-5: Percentage of children under age 5 who are wasted by sex, region and year

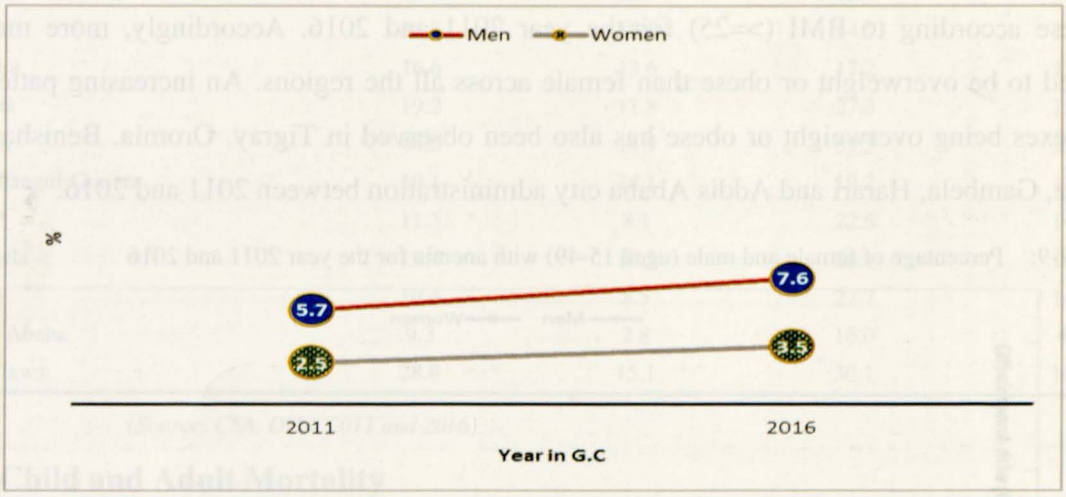
	2000		2005		2011		2016	
Region	Female	Male	Female	Male	Female	Male	Female	Male
Country Total	9.7	11.4	9.5	11.6	8.1	11.1	9.6	10.2
Tigray	10.0	11.7	13.2	10.5	8.5	11.9	8.9	13.2
Afar	12.3	12.0	5.3	13.1	15.9	22.9	18.2	17.2
Amhara	7.8	11.2	11.9	16.1	8.5	11.2	10.4	9.1
Oromia	10.3	10.4	8.0	11.1	7.9	11.4	10.4	10.6
Somali	18.6	21.9	25.1	22.9	20.5	23.0	19.0	26.2
Benishangul-Gumuz	14.3	13.2	13.8	17.8	9.2	10.6	11.2	11.9
SNNP	10.0	13.4	6.9	6.6	6.5	8.7	5.6	6.4
Gambela	17.5	18.3	4.7	9.1	11.0	14.1	9.9	17.7
Harari	5.8	6.6	11.4	8.3	6.8	11.0	9.6	11.5
Addis Ababa	5.3	3.1	2.4	0.8	3.7	5.3	2.6	4.6
Dire Dawa	11.6	10.6	1.9	19.2	11.7	12.7	9.0	10.5

(Source: CSA, DHS: 2000, 2005, 2011 and 2016)

EDHS collected anthropometric data on height and weight for women age 15-49. These data were used to calculate several measures of nutritional status such as maternal height and body mass index (BMI). BMI is calculated by dividing weight in kilograms by height in meters squared (kg/m^2) and according to BMI the following nutritional status is given:

Status	BMI
Too thin for their height	Less than 18.5
Normal	Between 18.5 and 24.9
Overweight	Between 25.0 and 29.9
Obese	Greater than or equal to 30.0

Figure 7-8: Percentage of female and male aged 15-49 who are overweight or obese according to BMI (>=25.0) by year, Country Total



(Source: CSA, DHS: 2011 and 2016)

Figure 7-10 presents the country level statistics of female and male (aged 15-49) who are overweight or obese according to BMI (>=25) for 2011 and 2016 survey years. Accordingly, there reported to be more male who are obese (BMI>=25) than female for both the survey years. However, male share of being obese increased from 5.7% in 2011 to 7.6% in 2016, whereas female percentage who are overweight or obese increased from 2.5% to 3.5% between the two years.

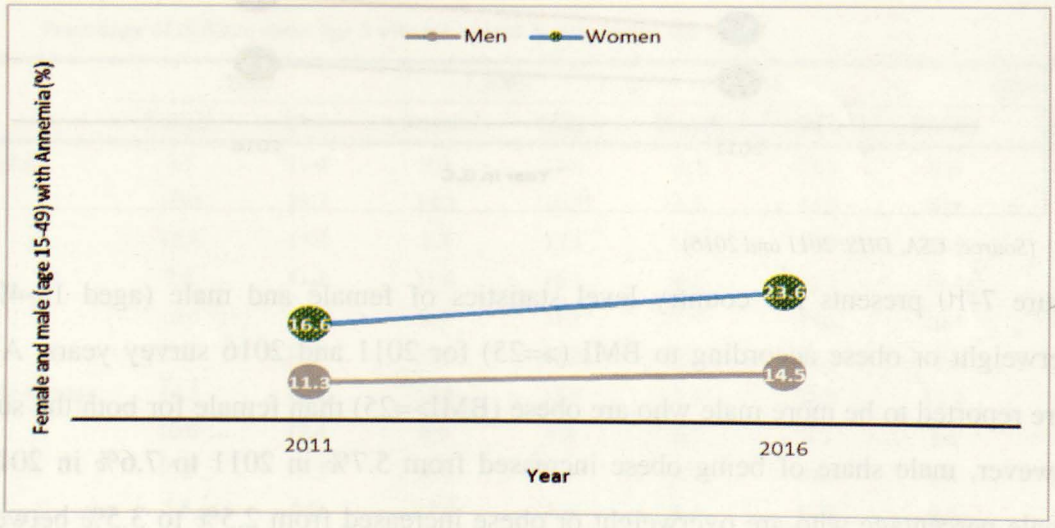
Table 7-6: Percentage of female and male aged 15-49 who are overweight or obese according to BMI (>=25.0) by Region and year

Region	2011		2016	
	Female	Male	Female	Male
Country Total	2.5	5.7	3.5	7.6
Tigray	2.3	3.2	2.6	5.6
Afar	2.4	4.3	4.7	8.3
Amhara	1.2	3.6	1.4	3.4
Oromia	1.6	4.7	2.9	7.4
Somali	1.9	15.9	3.1	15.1
Benishangul-Gumuz	2.0	2.9	2.8	6.9
SNNP	2.4	6.1	1.9	5.6
Gambela	2.0	6.9	4.2	8.5
Harari	6.4	14.4	9.0	19.8
Addis Ababa	12.4	19.9	19.6	29.4
Dire Dawa	10.1	18.5	8.8	21.6

(Source: CSA, DHS: 2011 and 2016)

Table 7-6 demonstrates the regional statistics of female and male aged 15-49 who are overweight or obese according to BMI (>=25) for the year 2011 and 2016. Accordingly, more male is reported to be overweight or obese than female across all the regions. An increasing pattern in both sexes being overweight or obese has also been observed in Tigray, Oromia, Benishangul-Gumuz, Gambela, Harari and Addis Ababa city administration between 2011 and 2016.

Figure 7-9: Percentage of female and male (aged 15-49) with anemia for the year 2011 and 2016



(Source: CSA, DHS: 2011 and 2016)

Figure 7-11 shows the statistics of female and male (aged 15-49) with anemia for the year 2011 and 2016. There appeared to be an increasing trend in anemia cases for both sexes from 2011 to 2016, and more female (as compared to male) are found being the victim of this problem. Specifically, percentage of male with anemia is increased from 11.3% in 2011 to 14.5% in 2016, and that of female increased from 16.6% to 23.6% in the same duration.

Similarly, there appeared to be an increasing trend in both sexes with anemia across the survey years and regions, except in Benishangul-Gumuz (14.1% to 11.1%) and Gambela (10.5% to 10%) regions where male percentage being anemic slightly decreased (Table 7-7).

Table 7-7: Percentage of women and men aged 15-49 with Anemia by regions and years

Region	2011		2016	
	Female	Male	Female	Male
Country Total	16.6	11.3	23.6	14.5
Tigray	12.4	12.1	19.7	16.9
Afar	34.8	15.0	44.7	23.7
Amhara	16.6	13.6	17.2	13.5
Oromia	19.2	11.8	27.3	15.8
Somali	44.0	14.9	59.5	21.3
Benishangul-Gumuz	19.1	14.1	19.2	11.1
SNNP	11.3	8.1	22.5	14.1
Gambela	19.4	10.5	26.1	10.0
Harari	19.4	8.5	27.7	14.0
Addis Ababa	9.3	2.8	16.0	4.8
Dire Dawa	28.8	15.1	30.1	16.3

(Source: CSA, DHS: 2011 and 2016)

7.4. Child and Adult Mortality

Information on infant and child mortality is pertinent to the demographic assessment of the population, and it is an important indicator of socio-economic development and quality of life. It helps in estimating as to how many children may be at higher risk of death. Adult and maternal mortality indicators can be used to assess the health status of a population.

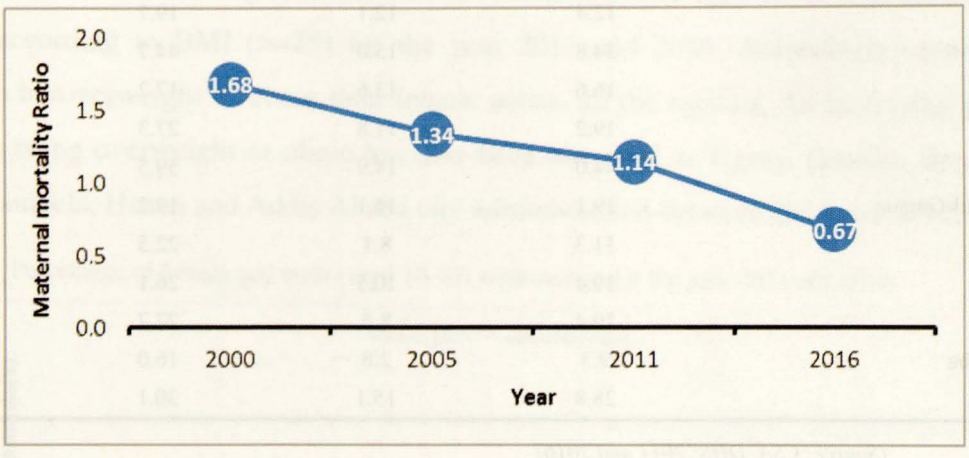
Trends in child and adult mortality are important markers of progress in the health of populations, and these are best monitored through comprehensive vital registration systems. When such registration systems may fail to provide full national coverage, various retrospective reports on child survival can be used to compensate for lacking data. Moreover, in developing countries, censuses and the DHSs typically collect summary birth histories i.e., the number of

children ever born to women of reproductive age, and the number of those children surviving at the date of the census, to have indirect estimates of mortality.

Corresponding indicator estimates are required by age and sex for the factors that cause child and adult mortality, including maternal mortality, and mortality and morbidity caused by HIV/AIDS, malaria and tuberculosis. This section, therefore, presents information on maternal mortality ratio, received antenatal care (ANC) by women, children immunization, and adult mortality both at the national and regional levels.

Figure 7-12 illustrates the statistics of maternal mortality ratio per 1000 women by the DHS survey years (2000, 2005, 2011 and 2016). Accordingly, a gradual decline in the maternal mortality ratio is observed from 1.68% (in 2000) to 0.67% (in 2016).

Figure 7-10: Maternal mortality ratio expressed per 1,000 woman-years of exposure, Country Total



(Source: CSA-DHS: 2000, 2005, 2011 and 2016)

As indicated in Table 7-8, there is a gradual decline in the maternal mortality rate is being observed in Tigray, Amhara, Oromia and SNNP regions, and other regions showed varying but declining patterns. For example, in Afar region, maternal mortality rate in the year 2000 is reported to be 3.04%, which had declined to 1.10% in 2005 and then increase in 2011 (3.31%) and then decline to 2.29% in 2016. Almost similar trend in maternal mortality rate is reported for Somali, Gambela, Harari, Addis Ababa and Dire Dawa regions. In general, it can be seen that maternal mortality rate is majorly declined between 2011 and 2016, across all the regions.

Table 7-8: Maternal mortality ratio expressed per 1,000 woman-years of exposure by region

Region	2000	2005	2011	2016
Country Total	1.68	1.34	1.14	0.67
Tigray	1.53	1.23	1.14	0.73
Afar	3.04	1.10	3.31	2.29
Amhara	1.76	1.52	0.92	0.44
Oromia	1.80	1.34	1.31	0.88
Somali	3.72	1.02	2.30	1.19
Benishangul-Gumuz	2.51	3.36	1.67	0.43
SNNP	1.41	1.36	1.22	0.54
Gambela	3.04	1.46	1.58	0.34
Harari	1.19	0.54	0.83	0.65
Addis Ababa	0.80	0.62	0.75	0.31
Dire Dawa	1.30	0.34	0.91	0.82

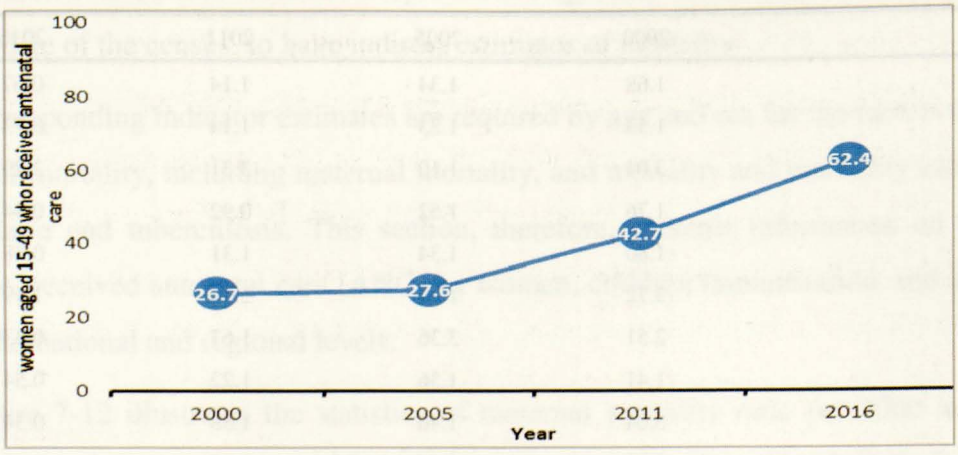
(Source: CSA, DHS: 2000, 2005, 2011 and 2015)

Antenatal care (ANC)

Antenatal care coverage is an indicator of access and use of health care during pregnancy. The antenatal period presents opportunities for reaching pregnant women with interventions that may be vital to their health and wellbeing and to their infants. Receiving antenatal care at least four times increases the likelihood of receiving effective maternal health interventions during antenatal visits

At country level, there appeared to be a gradual increase in the percentage of women who received antenatal care (ANC) from 26.7% in 2000 to 27.6% in 2005 to 42.7% in 2011 to 62.4% in 2016 (Figure 7-13). Specifically, by 2016, majority (62.4%) of the women received antenatal care (ANC) which is more than double increase in the percentage of women receiving ANC over the last 15 years.

Figure 7-11: Percentage of women aged 15-49 who received antenatal care (ANC), Country Total



(Source: CSA, DHS: 2000, 2005, 2011 and 2016)

Table 7-9 depicts the regional distribution of women age 15-49 and who received antenatal care (ANC). Accordingly, by the year 2016, majority of women reported to be receiving ANC in Addis Ababa City Administration (96.8%), Tigray region (90%) and Dire Dawa Administration (87.4%). However, relatively less ANC usage has been observed among the married women from Somali (43.6%), Oromia (50.7%) and Afar (51.3%) regions in the same period.

Table 7-9: Percentage of women age 15-49 who received antenatal care (ANC) by Region

Region	2000	2005	2011	2016
Country Total	26.7	27.6	42.7	62.4
Tigray	36.4	35.3	64.6	90.0
Afar	26.1	15.0	34.8	51.3
Amhara	18.9	26.5	40.6	67.1
Oromia	27.0	24.8	39.1	50.7
Somali	14.6	7.4	25.4	43.6
Benishangul-Gumuz	25.7	24.5	39.8	68.7
SNNP	28.4	30.3	40.6	69.3
Gambela	49.8	36.6	55.9	72.3
Harari	50.2	40.7	59.8	75.9
Addis Ababa	83.1	88.3	94.3	96.8
Dire Dawa	57.6	52.9	60.9	87.4

(Source: CSA, DHS: 2000, 2005, 2011 and 2016)

Full immunization

Fully immunized child (FIC): The indicator measures the capability of the system to provide all vaccines in the childhood schedule at the appropriate age and the appropriate interval between doses in the first year of life; also measures public demand and perceived quality of services. Though the definition of FIC varies from country to country, the definition in Ethiopia should consider a child as fully immunized when he/she received BCG (Bacille Calmette-Guérin) vaccine, 3 doses of DPT-Hib-HepB (A pentavalent vaccine against diphtheria, pertussis, tetanus (DPT), hepatitis B (HepB), and Haemophilus influenza type b (Hib)), 3 doses of Polio (oral polio vaccine (OPV) or inactivated polio vaccine (IPV), 3 doses of PCV (Pneumococcal conjugate vaccine), 2 doses of Rota (rotavirus vaccine)and 1 dose of Measles containing vaccine (MCV before the age of 1 year.

Figure 7-14 presents the statistics of full-immunized children by sex during 2000, 2005, 2011 and 2016 survey years. Accordingly, there appeared to be a gradual increase in the immunization of both sexes between 2000 and 2016. However, there remain more male children (14.7%) fully immunized as compared to female children (13.8%) in the year 2000. In 2016 the share of female children (40.3%) larger than that of male children (36.5%) for full immunization.

Figure 7-12: Percentage of fully immunized children by sex and year, Country Total



(Source: CSA, DHS: 2000, 2005, 2011 and 2016)

Table 7-10 demonstrates the regional statistics about fully immunized children by sex across the survey years (2000, 2005, 2011 and 2016). Thus, there appeared to be a growing trend almost across all the regions, for full immunization to both sexes. However, across all the four surveys years, Addis Ababa City Administration appeared to be having more fully immunized children than those in any other regions. More specifically, by 2016 there reported to be 89% male

children and 89.5% female children of Addis Ababa being fully immunized as compared to just 8.5% male children and 23% female children in Afar.

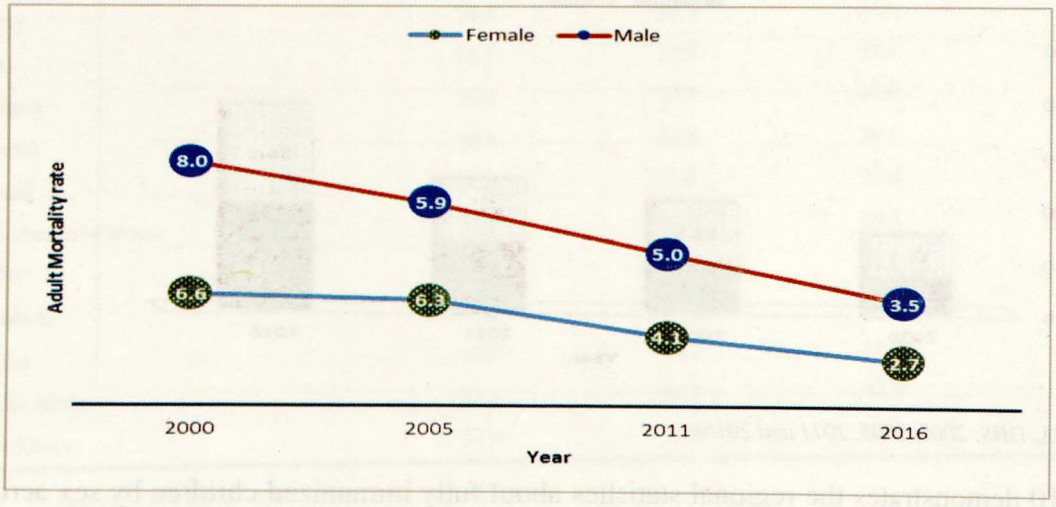
Table 7-10: Percentage of full-immunized children by sex, region and year

	2000		2005		2011		2016	
Region	Female	Male	Female	Male	Female	Male	Female	Male
Country Total	13.8	14.7	18.2	22.5	25.7	23.1	40.3	36.5
Tigray	48.0	38.3	34.5	32.1	53.5	64.0	69.1	65.2
Afar	-	-	-	-	7.4	9.7	23.0	8.5
Amhara	10.6	18.2	12.8	20.7	28.6	23.7	49.3	41.9
Oromia	9.7	9.8	15.6	25.0	19.1	12.7	27.8	21.0
Somali	28.4	16.5	0.0	5.9	16.4	16.7	19.1	23.9
Benishangul-Gumuz	9.8	13.9	20.0	17.2	22.1	25.0	50.7	64.1
SNNP	10.4	10.6	22.1	18.6	20.9	26.9	44.9	49.4
Gambela	9.0	13.0	17.1	14.8	23.3	6.6	36.5	44.3
Harari	44.7	29.1	29.2	40.9	36.9	31.7	41.6	42.7
Addis Ababa	78.6	70.0	75.0	63.7	78.6	78.8	89.5	89.0
Dire Dawa	41.4	29.7	39.5	48.6	64.1	53.4	73.6	79.2

(Source: CSA, DHS: 2000, 2005, 2011 and 2016)

Figure 7-14 highlights country level statistics for adult mortality rate (age 15-49) per 1000 population by sex and survey years (2000, 2005, 2011 and 2016). There appeared to be a consistent declining trend between 2000 and 2016 in adult mortality for both sexes. Specifically, the adult mortality rate for female declined from 6.6% in 2000 to 2.7% in 2016.

Figure 7-13: Adult Mortality (Age 15-49) rate per 1000 Population by sex and year, Country Total



(Source: CSA, DHS: 2000, 2005, 2011 and 2015)

Similarly, there appeared to be a consistent declining trend in adult mortality rate for both sexes across the regions (Table 7-11). Somali region reported a minor increase in adult mortality for male (from 4.3% in 2000 to 5.4% in 2016). Moreover, for the year 2016, the lowest adult

mortality rate for female has been observed in Benishangul-Gumuz region (2.3%), and the lowest rate for male appeared to be in Harari (2.3%).

Table 7-11: Adult Mortality (Age 15-49) rate per 1000 Population by sex, region and year

	2000		2005		2011		2016	
Region	Female	Male	Female	Male	Female	Male	Female	Male
Country Total	6.6	8.0	6.3	5.9	4.1	5.0	2.7	3.5
Tigray	6.2	8.7	4.6	6.7	3.8	3.9	2.9	3.4
Afar	14.7	10.6	8.2	7.6	7.9	5.3	4.7	4.5
Amhara	7.9	7.7	8.5	6.1	3.9	5.2	2.4	3.2
Oromia	6.4	7.4	5.6	5.4	3.9	4.7	2.8	3.2
Somali	7.2	4.3	3.6	5.5	4.8	5.3	3.5	5.4
Benishangul-Gumuz	7.0	7.0	10.2	9.4	4.6	4.0	2.3	3.7
SNNP	5.5	8.1	5.7	5.4	3.9	4.3	2.5	4.2
Gambela	12.4	12.2	8.6	13.5	5.9	7.3	3.9	7.5
Harari	6.9	8.1	6.0	6.5	4.4	3.8	2.8	2.3
Addis Ababa	6.8	8.7	5.8	6.0	5.8	6.9	2.8	3.4
Dire Dawa	5.8	7.8	5.5	6.1	3.1	5.4	4.0	3.9

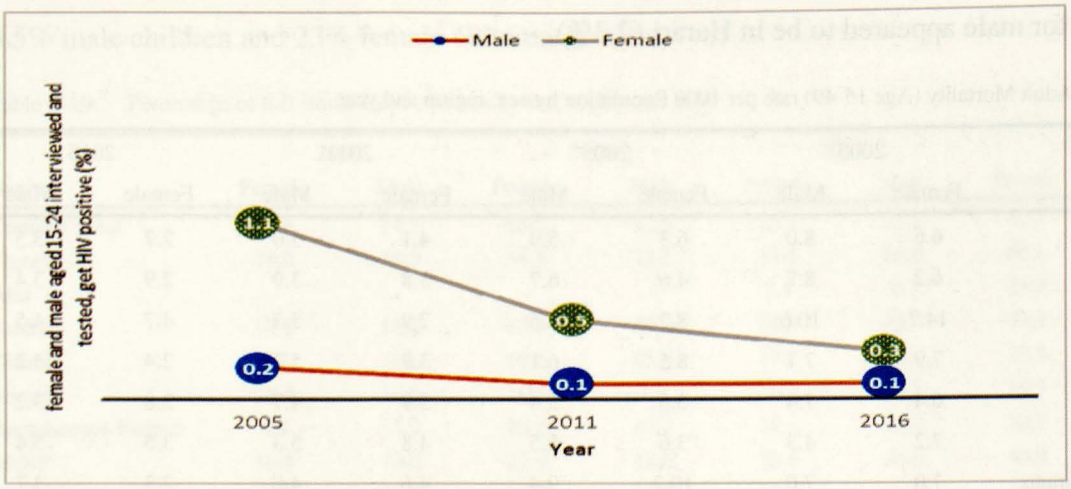
(Source: CSA, DHS: 2000, 2005, 2011 and 2016)

7.5. HIV/AIDS and Sexual Activity

In response to the HIV epidemic, the GoE has developed a five-year long national HIV and AIDS strategic plan (2015-2020). This section assesses the sex-disaggregated data for key HIV/AIDS-related issues such as HIV prevalence, HIV positivity, comprehensive knowledge about HIV and sexual behavior.

With respect to the prevalence of HIV among individuals (aged 15-24 years), Figure 7-15 displays the trends across 2005, 2011 and 2016 CSA's DHS. Even though a declining trend pertaining to HIV prevalence has been noticed for both sexes, among female (aged 15-24 years) a major decline has been observed from 1.1% (in 2005) to 0.3% (in 2016), and still they are more prominent victim as compared to male.

Figure 7-14: Prevalence of HIV, female and male aged 15-24 interviewed and tested, get HIV positive, Country Total



(Source: CSA-DHS: 2005, 2011 and 2016)

Similarly, Table 7-12 illustrates the sex-disaggregated statistics about HIV prevalence among the population (aged 15-24 years) across the regions. Accordingly, the percentage of both male and female aged 15-24 years with HIV prevalence across different regions is reduced between 2005 and 2016. However, in other regions like Benishangul-Gumuz (0.9% to 1.6% for), SNNP (0.1% to 0.5%) and Gambela (5.5% to 5.7%), an increasing trend for female has been observed in the same duration.

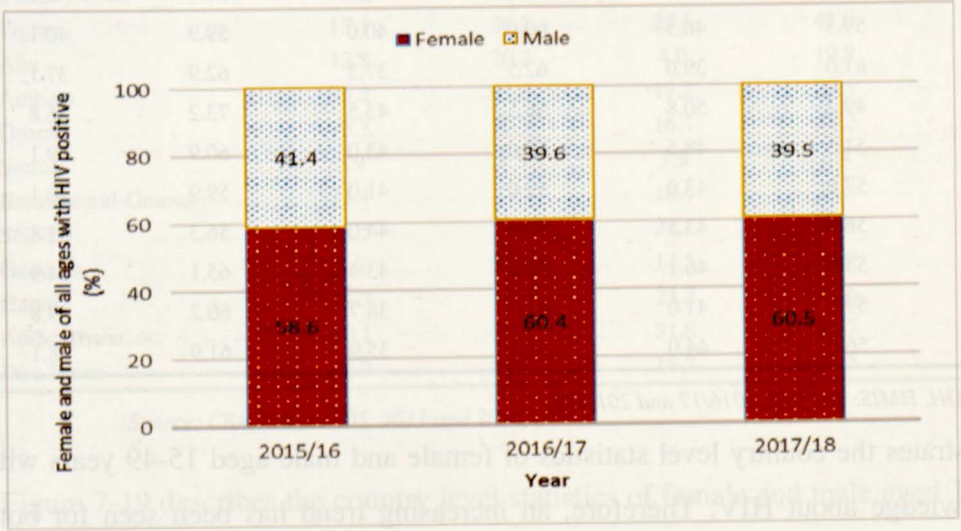
Table 7-12: Prevalence of HIV, female and male aged 15-24 interviewed and tested, get HIV positive by region

	2005		2011		2016	
Region	Female	Male	Female	Male	Female	Male
Country Total	1.1	0.2	0.5	0.1	0.3	0.1
Tigray	2.6	1.6	2.2	1.3	1.5	0.7
Afar	3.3	2.4	2.0	1.7	1.6	1.2
Amhara	1.8	1.6	2.2	1.0	1.3	1.0
Oromia	2.2	0.4	1.3	0.6	1.1	0.2
Somali	1.3	0.0	1.6	0.4	0.1	0.0
Benishangul-Gumuz	0.9	0.0	1.7	0.8	1.6	0.3
SNNP	0.1	0.4	1.0	0.6	0.5	0.2
Gambela	5.5	6.7	7.9	4.9	5.7	3.7
Harari	4.6	2.2	3.8	1.7	3.5	1.3
Addis Ababa	6.1	3.0	6.0	4.3	4.2	2.2
Dire Dawa	4.4	1.9	4.3	3.7	3.5	1.3

(Source: CSA, DHS: 2005, 2011 and 2016)

Figure 7-17 highlights the percentages of HIV positive male and female of all ages in the country. Thus, more female than male is appeared to be the victims of HIV across all the three reporting years (2015/16, 2016/17 and 2017/18). However, a gradual decrease (41.4% to 39.5%) has been observed in the context of male for the same period.

Figure 7-15: Percentage of female and male of all ages among tested who are with HIV positive by Years, Country Total



(Source: MoH, HMIS: 2015/16, 2016/17 and 2017/18)

Similarly, Table 7-13 shows the sex disaggregated figures for the percentages of female and male of all ages among tested who are with HIV positive across the region between 2015/16 and 2017/18. Accordingly, in the majority of regions more female than men who were tested for HIV are HIV positive. Moreover, between 2015/16 and 2017/18, somewhat increasing trends are observed across all the regions, except in Tigray and Gambela, where HIV positive percentage of female declined from 61.2% to 57.8% and 56.5% to 56.3%, respectively. By 2017/18, the percentage of female with HIV positive remained highest in Somali region (73.2%) followed by Harari region (65.1%), Oromia region (62.9%) and Dire Dawa Administration (61.9%).

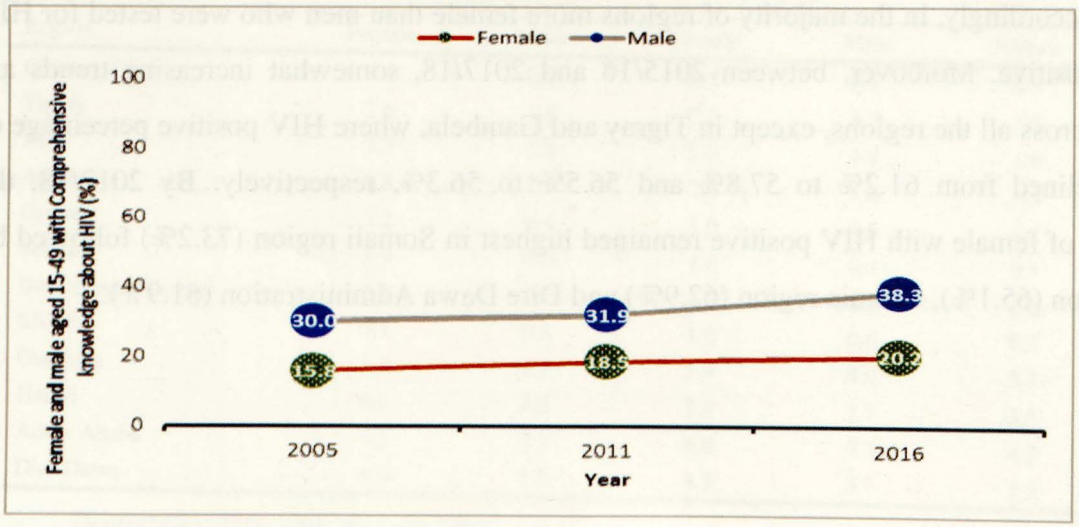
Table 7-13: Percentage of female and male of all ages among tested who are with HIV positive by Region and Years, Country Total

Region	2015/16		2016/17		2017/18	
	Female	Male	Female	Male	Female	Male
Country Total	58.6	41.4	60.4	39.6	60.5	39.5
Tigray	61.2	38.8	58.9	41.1	57.8	42.2
Afar	46.9	53.1	51.0	49.0	57.1	42.9
Amhara	59.5	40.5	60.0	40.0	59.9	40.1
Oromia	61.0	39.0	62.5	37.5	62.9	37.1
Somali	49.2	50.8	56.5	43.5	73.2	26.8
Benishangul-Gumuz	51.5	48.5	57.0	43.0	60.9	39.1
SNNP	57.0	43.0	59.0	41.0	59.9	40.1
Gambela	56.5	43.5	56.0	44.0	56.3	43.8
Harari	53.9	46.1	56.6	43.4	65.1	34.9
Addis Ababa	59.0	41.0	61.3	38.7	60.2	39.8
Dire Dawa	56.0	44.0	64.1	35.9	61.9	38.1

(Source: MOH, HMIS: 2015/16, 2016/17 and 2017/18)

Figure 7-18 demonstrates the country level statistics of female and male aged 15-49 years with comprehensive knowledge about HIV. Therefore, an increasing trend has been seen for both sexes on the knowledge about HIV between 2005 and2016. However, male have more comprehensive knowledge about HIV than female.

Figure 7-16: Percentage of female and male aged 15-49 with Comprehensive knowledge about HIV, Country Total



(Source: CSA-DHS: 2005, 2011 and 2016)

As can be seen from Table 7-14, an increasing trend for comprehensive knowledge about HIV by both sexes, though varying patterns across the regions can be observed.

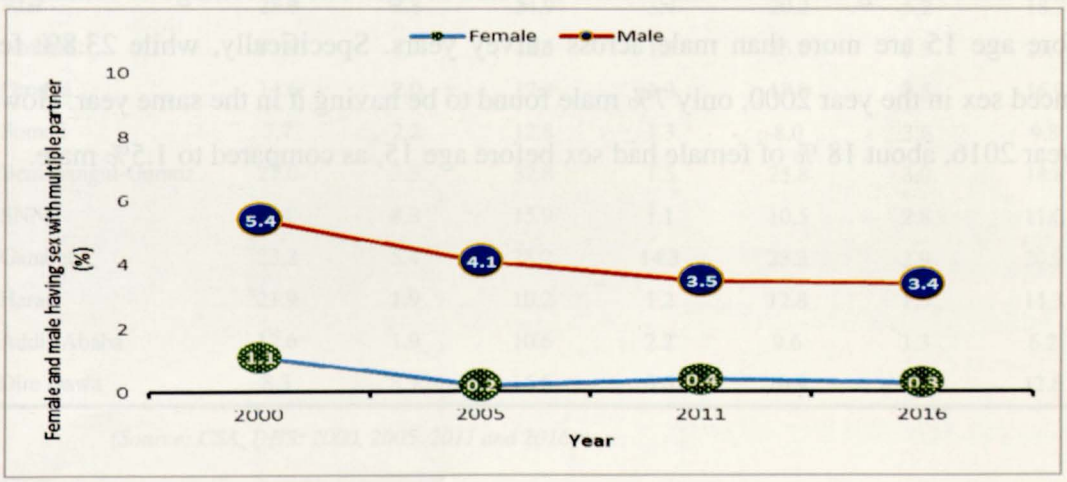
Table 7-14: Percentage of female and male age 15-49 with Comprehensive knowledge about HIV by region

	2005		2011		2016	
Region	Female	Male	Female	Male	Female	Male
Country Total	15.8	30.0	18.5	31.9	20.3	38.3
Tigray	13.1	36.5	22.1	41.0	24.9	43.5
Afar	12.8	20.2	4.0	19.8	12.2	32.3
Amhara	15.2	41.6	17.2	29.5	22.0	44.0
Oromia	15.3	22.2	16.7	28.2	17.3	35.3
Somali	3.9	8.5	3.5	6.4	3.5	12.1
Benishangul-Gumuz	11.1	31.7	18.4	31.5	14.0	30.9
SNNP	11.5	26.1	21.1	39.9	17.5	35.8
Gambela	8.9	22.0	14.5	34.9	22.8	41.8
Harari	28.3	53.0	23.2	21.6	20.1	34.8
Addis Ababa	50.1	53.8	31.8	43.7	44.1	51.5
Dire Dawa	27.2	40.6	18.7	44.5	22.0	44.0

(Source: CSA, DHS: 2005, 2011 and 2016)

Figure 7-19 describes the country level statistics of female and male aged 15-49 having sex with multiple partners in the past 12 months respective to each survey period. So, pertaining to the issue, a major decrease has been observed in the percentages of both sexes. Specifically, there remains a decreasing trend among male having sex with multiple partners from 5.4% in 2000 to 3.4% in 2015. Similar decreasing for female from 1.1% in 2000 to 0.3% in 2016 has been observed.

Figure 7-17: Percentage of female and male aged 15-49 having sex with multiple partner in the past 12 months prior to each survey by sex, Country Total



(Source: CSA, DHS: 2000, 2005, 2011 and 2016)

Table 7-15 presents the regional statistics about female and male having sex with multiple partners across the survey years. There appeared to be a decreasing trend in both sexes having such practice, across the regions, still the percentage of male is more than female who have sex with multiple partners. Specifically, in 2016, relatively high percentage for male having sex with multiple partners observed in Afar (5.9%), Benishangul-Gumuz (5.6%) and Gambela (5.5%) regions. Moreover, female from the same regions have less percentage than male in the past 12 months prior to each survey time.

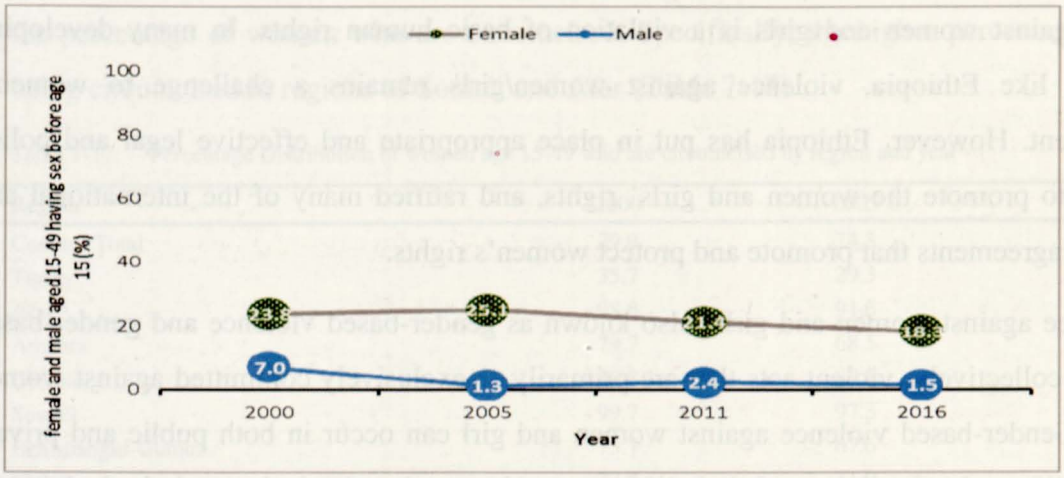
Table 7-15: Percentage of female and male aged 15-49 having sex with multiple partner in the past 12 months prior to each survey by sex and region

	2000		2005		2011		2016	
Region	Female	Male	Female	Male	Female	Male	Female	Male
Country Total	1.1	5.4	0.2	4.1	0.4	3.5	0.3	3.4
Tigray	1.2	8.9	0.0	4.5	0.9	1.7	0.5	2.6
Afar	2.4	19.7	0.7	7.1	0.0	7.7	0.2	5.9
Amhara	2.0	0.8	0.1	2.0	0.3	1.5	0.4	1.6
Oromia	0.4	8.3	0.2	3.5	0.2	4.1	0.3	4.2
Somali	0.8	0.0	0.0	3.2	0.6	6.2	0.1	4.7
Benishangul-Gumuz	1.8	2.1	0.7	12.7	0.5	8.4	0.2	5.6
SNNP	1.5	1.6	0.4	6.5	0.4	5.0	0.2	3.7
Gambela	1.9	12.4	0.6	12.4	11.2	8.5	0.7	5.5
Harari	0.3	9.1	0.4	2.2	0.1	1.7	0.2	2.2
Addis Ababa	1.3	11.4	0.3	6.1	0.2	3.2	0.5	4.7
Dire Dawa	1.9	7.0	1.5	7.6	0.1	2.7	0.3	2.5

(Source: CSA, DHS: 2000, 2005, 2011 and 2016)

Figure 7-20 depicts the country level statistics of female and male aged 15-49 having sex before age 15 during 2000, 2005, 2011 and 2016. There appeared to be a decrease in the percentages of female and male having sex before they reach 15 years of age. The percentage of female having sex before age 15 are more than male across survey years. Specifically, while 23.8% female experienced sex in the year 2000, only 7% male found to be having it in the same year. However, by the year 2016, about 18 % of female had sex before age 15, as compared to 1.5% male.

Figure 7-18: Percentage of female and male aged 15-49 having sex before age 15 by years, Country Total



(Source: CSA, DHS: 2000, 2005, 2011 and 2016)

Furthermore, Table 7-15 highlights the regional percentage distribution about female and male having sex before age 15 across the survey years (2000 to 2016). Consequently, there is a decreasing trend in both sexes having sex before age 15 across many regions. However, female percentage having sex before age 15 increased between 2000 and 2016 in Oromia region (14.6% to 16.9%), Somali region (7.7% to 9.8%), SNNP region (8.4% to 11%) and Dire Dawa Administration (8.3% to 12.6%) regions.

Table 7-16: Percentage of female and male aged 15-49 having sex before age 15 by Region and Years

	2000		2005		2011		2016	
Region	Female	Male	Female	Male	Female	Male	Female	Male
Country Level	23.8	7.0	25.1	1.3	21.4	2.4	18.3	1.5
Tigray	33.0	1.9	31.7	0.0	25.4	1.0	22.4	0.3
Afar	28.0	2.8	24.9	3.4	20.2	5.2	18.3	3.7
Amhara	51.9	4.7	47.5	1.3	36.6	2.3	29.7	0.7
Oromia	14.6	2.0	17.3	1.3	17.8	2.5	16.9	1.8
Somali	7.7	2.2	12.8	1.3	8.0	3.6	9.8	0.8
Benishangul-Gumuz	27.0	3.5	32.8	1.5	25.8	3.0	18.8	5.1
SNNP	8.4	8.3	15.9	1.1	10.5	2.8	11.0	1.9
Gambela	23.2	5.4	28.2	14.3	23.3	2.9	20.9	3.4
Harari	21.9	1.9	10.2	1.2	12.8	1.5	14.3	3.8
Addis Ababa	12.6	1.9	10.6	2.2	9.6	1.3	6.2	1.6
Dire Dawa	8.3	3.9	15.5	0.6	10.9	1.4	12.6	1.6

(Source: CSA, DHS: 2000, 2005, 2011 and 2016)

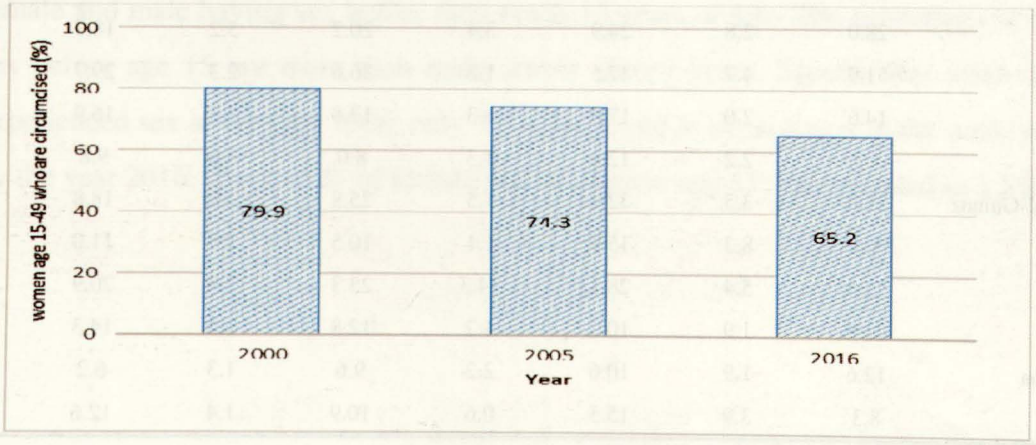
7.6. Violence Against women

Violence against women and girls is a violation of basic human rights. In many developing economies, like Ethiopia, violence against women/girls remains a challenge to women's empowerment. However, Ethiopia has put in place appropriate and effective legal and policy provisions to promote the women and girls' rights, and ratified many of the international and continental agreements that promote and protect women's rights.

The violence against women and girls, also known as gender-based violence and gender-based violence is collectively, violent acts that are primarily or exclusively committed against women and girls. Gender-based violence against women and girl can occur in both public and private spheres of life and at any time of their life span and can take physical, psychological sexual forms, which often keeps women away from wholly contributing to social, economic, and political development of their communities. As a result, updated information for systematic review of domestic violence is needed to support policy and program recommendations. This section deals with assessing the data pertaining to the women (aged 15-49) who are circumcised and/or faced sexual violence (in the last 12 months) preceding the survey times at country and regional level.

Figure 7-21 depicts women age 15-49 who are circumcised by the survey years (2000, 2005 and 2016). As a result, there is a gradual decrease in the percentage of women who are circumcised from 79.9% in 2000 to 74.33% in 2005 to 65.2% in 2016 in the country.

Figure 7-19: Percentage of women age 15-49 who are circumcised by year, Country Total



(Source: CSA, DHS: 2000, 2005 and 2016)

Similarly, there appeared to be a declining trend across all the regions between 2000 and 2016, in the percentage of women who are circumcised. Specifically, the higher percentages of women being circumcised in regions of Somali and Afar (Table 7-17).

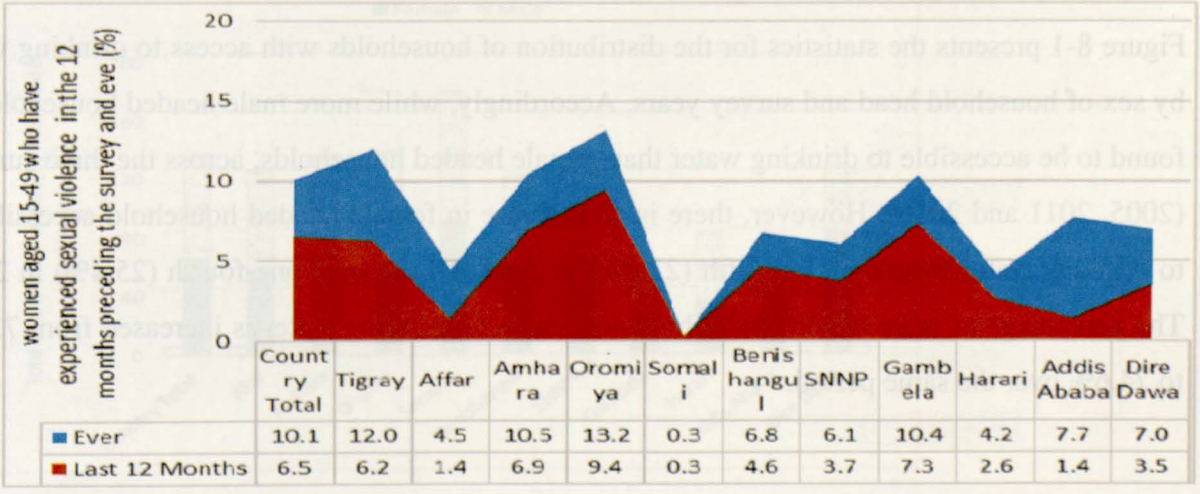
Table 7-17: Percentage Distribution of women age 15-49 who are circumcised by region and year

Region	2000	2005	2016
Country Total	79.9	74.3	65.2
Tigray	35.7	29.3	24.2
Afar	98.6	91.6	91.2
Amhara	79.7	68.5	61.7
Oromia	89.8	87.2	75.6
Somali	99.7	97.3	98.5
Benishangul-Gumuz	73.7	67.6	62.9
SNNP	73.5	71.0	62.0
Gambela	42.9	27.1	33.0
Harari	94.3	85.1	81.7
Addis Ababa	79.8	65.7	54.0
Dire Dawa	95.1	92.3	75.3

(Source: CSA, DHS: 2000, 2005 and 2016)

As illustrated in Figure 7-22 there is varying patterns across the regions, among the women who ever experienced sexual violence and/or before 12 months of the DHS 2016 survey year. As witnessed, regions like Oromia, Tigray, Amhara and Gambela scored above the country average in experiencing ever sexual violence, while much lesser percentage for the same appeared from Somali (0.3%).

Figure7-20: Percentage of women aged 15-49 who have experienced sexual violence in the 12 months preceding the survey and ever in 2016



	Country Total	Tigray	Affar	Amhara	Oromiya	Somali	Benishangul	SNNP	Gambela	Harari	Addis Ababa	Dire Dawa
Ever	10.1	12.0	4.5	10.5	13.2	0.3	6.8	6.1	10.4	4.2	7.7	7.0
Last 12 Months	6.5	6.2	1.4	6.9	9.4	0.3	4.6	3.7	7.3	2.6	1.4	3.5

(Source: CSA, DHS: 2016)

8. Water, Sanitation and Electricity

This chapter presents the analysis for sex-disaggregated data pertaining to the major/prominent water, sanitation and electricity indicators, both at national and regional levels, like household access to drinking water, time spent on collecting water, access to improved sanitation, access to toilet facility and electricity by sex.

With respect to the water, sanitation and electricity sector, sex-disaggregated data for concerned indicators, both at national and regional levels, are captured through CSA's DHS and Time use surveys.

Figure 8-1: Percentage distribution of households with access to drinking water by sex of household head and years, Country Level



(Source: CSA, DHS: 2000, 2005 and 2016)

Figure 8-1 presents the statistics for the distribution of households with access to drinking water by sex of household head and survey years. Accordingly, while more male headed household are found to be accessible to drinking water than female headed households, across the three surveys (2005, 2011 and 2016). However, there is an increase in female headed household accessibility to drinking water from over one-fifth (22.8%) in 2005 to little over one-fourth (25.4%) in 2016. The percentage of male headed household accessible to drinking water is increased from 73.9% to 74.6% over the same period.

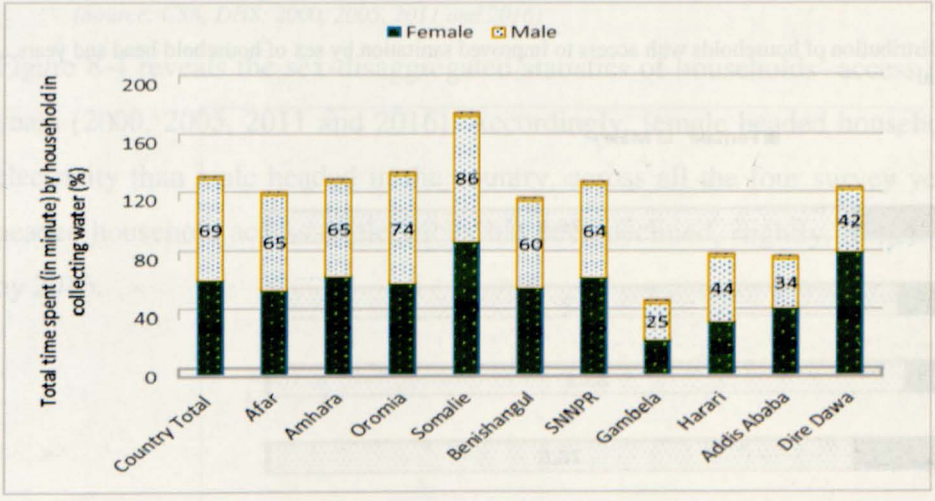
Table 8-1: Percent distribution of households with access to drink water by sex of household head, region and years

Region	2005		2011		2016	
	Female	Male	Female	Male	Female	Male
Country Total	22.8	77.2	26.1	73.9	25.4	74.6
Tigray	29.8	70.2	31.7	68.3	32.4	67.6
Afar	21.4	78.6	34.4	65.6	43.7	56.3
Amhara	22.5	77.5	25.9	74.1	24.5	75.5
Oromia	21.6	78.4	22.8	77.2	22.1	77.9
Somali	26.8	73.2	34.9	65.1	40.6	59.4
Benishangul-Gumuz	23.1	76.9	21.4	78.6	25.5	74.5
SNNP	18.6	81.4	26.8	73.2	23.0	77.0
Gambela	25.0	75.0	26.6	73.4	32.5	67.5
Harari	28.1	71.9	28.7	71.3	33.0	67.0
Addis Ababa	39.0	61.0	36.8	63.2	40.4	59.6
Dire Dawa	30.9	69.1	32.9	67.1	34.6	65.4

(Source: CSA, DHS: 2000, 2005 and 2016)

Table 8-1 highlights the distribution of household head with access to drinking water by sex, regions and survey years (2005, 2011 and 2016). Accordingly, less female headed households are found to be accessible to drinking water than male headed households, across all the regions and survey years. However, a gradual increase in the female headed household accessibility to drinking water is being observed between 2005 and 2016 in Afar, Somali, Harari, Gambela and Tigray regions, and Dire Dawa Administration.

Figure 8-2: Total time spent (in minute) by household in collecting water by sex and region, 2013



(Source, CSA, TUS: 2013)

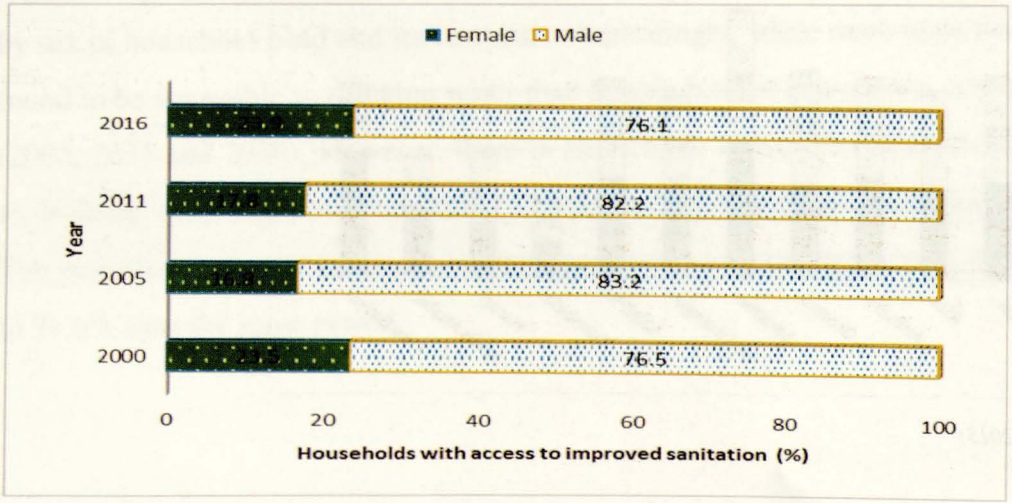
Furthermore, Figure 8-2 depicts the sex-disaggregated statistics of total time spent (in minutes) by households in collecting water by regions, for the year 2013. Relatively, female spent more time (in minutes) than male in water collection, in Amhara (66 minutes), Somali (90 minutes), SNNP (66 minutes), Addis Ababa (45 minutes) and Dire Dawa (83 minutes). While, in the Oromia (74 minutes), male spent more time than female in water collection.

Improved Sanitation

Sanitation classifications improved or unimproved are based on those defined by the WHO Joint Monitoring Program for Water Supply and Sanitation during the MDG monitoring period. By definition, an improved facility cannot be shared. The category unimproved sanitation is composed of shared facilities, unimproved facilities, and open defecation. The followings are categories of improved sanitation (if not shared): flush to piped sewer system, flush to septic tank, flush to pit latrine, pit latrine ventilated improved pit (vip), pit latrine with slab and composting toilet.

Figure 8-3 illustrates the sex-disaggregated statistics of households with access to improved sanitation by the four DHS survey years (2000, 2005, 2011 and 2016). Thus, less female headed household are found having access to improved sanitation, as compared to male headed household, for all the survey years. Moreover, a small increase in the access of improved sanitation by female headed household has been reported between 2000 (23.5%) and 2016 (23.9%).

Figure 8-3: Percentage distribution of households with access to improved sanitation by sex of household head and years, Country Total



(Source: CSA, DHS: 2000, 2005, 2011 and 2016)

Similarly, Table 8-2 displays the sex-disaggregated statistics of household head with access to improved sanitation by regions and survey years (2000, 2005, 2011 and 2016). Thus, more male headed household than female headed household are reported to be having access to improved sanitation across the regions and survey years. However, there appeared to be a growing trend in the female headed household access to improved sanitation between 2000 and 2016 in almost all the regions, except in Amhara (100% to 20.7%), Oromia (27.7% to 22.2%), Gambela (28.9% to 18.7%) and Harari (51.5% to 27.6%) where their participation declined against men.

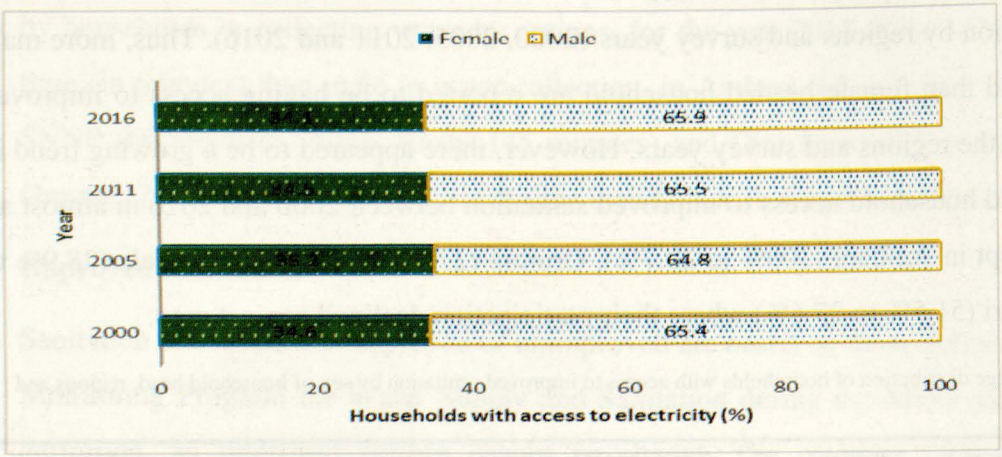
Table 8-2: Percentage distribution of households with access to improved sanitation by sex of household head, regions and years

	2000		2005		2011		2016	
Region	Female	Male	Female	Male	Female	Male	Female	Male
Country Total	23.5	76.5	16.8	83.2	17.8	82.2	23.9	76.1
Tigray	4.7	95.3	21.4	78.6	21.9	78.1	19.1	80.9
Afar	0.0	100.0	100.0	0.0	18.8	81.2	30.3	69.7
Amhara	100.0	0.0	16.7	83.3	14.3	85.7	20.7	79.3
Oromia	27.7	72.3	15.4	84.6	14.0	86.0	22.2	77.8
Somali	-	-	21.9	78.1	33.6	66.4	43.3	56.7
Benishangul-Gumuz	-	-	13.3	86.7	10.2	89.8	7.2	92.8
SNNP	-	-	12.2	87.8	16.4	83.6	17.2	82.8
Gambela	28.9	71.1	11.1	88.9	26.8	73.2	18.7	81.3
Harari	51.5	48.5	30.0	70.0	24.7	75.3	27.6	72.4
Addis Ababa	22.5	77.5	29.9	70.1	30.6	69.4	32.8	67.2
Dire Dawa	16.6	83.4	38.3	61.7	40.2	59.8	34.7	65.3

(Source: CSA, DHS: 2000, 2005, 2011 and 2016)

Figure 8-4 reveals the sex-disaggregated statistics of households' access to electricity by survey years (2000, 2005, 2011 and 2016). Accordingly, female headed household have less access to electricity than male headed in the country, across all the four survey years. Moreover, female headed household access to electricity has been declined, slightly, from 34.6% in 2000 to 34.1% by 2016.

Figure 8-4: Percentage distribution of households with access to electricity by sex of household head and year, Country Total



(Source: CSA, DHS: 2000, 2005, 2011 and 2016)

Table 8-4 illustrates the sex-disaggregated statistics of households' access to electricity by regions and survey years (2000, 2005, 2011 and 2016). Accordingly, less access to electricity with female headed household than male headed is well observed across the regions. However, female headed household with access to electricity is found gradually increasing only in the Gambela region between 2000 and 2016 (from 16.9% to 24.2%). Even though in other regions, an increase in women access to electricity is observed between 2011 and 2016 for example, Afar (31% to 42%), Oromia (27.6% to 28.7%), Somali (42.3% to 43.3%), Harari (31.4% to 37%), Addis Ababa (36.8% to 40.4%) and Dire Dawa (38.7% to 39.1%).

Table 8-3: Percentage distribution of households with access to electricity by sex of household head, region and year

	2000		2005		2011		2016	
Region	Female	Male	Female	Male	Female	Male	Female	Male
Country Total	34.6	65.4	35.2	64.8	34.5	65.5	34.1	65.9
Tigray	48.0	52.0	42.2	57.8	42.3	57.7	41.3	58.7
Afar	31.8	68.2	30.0	70.0	31.0	69.0	42.0	58.0
Amhara	36.3	63.7	38.8	61.2	41.5	58.5	38.0	62.0
Oromia	33.1	66.9	34.2	65.8	27.6	72.4	28.7	71.3
Somali	44.6	55.4	33.6	66.4	42.3	57.7	43.3	56.7
Benishangul-Gumuz	16.5	83.5	30.9	69.1	27.6	72.4	26.3	73.7
SNNP	22.4	77.6	16.7	83.3	28.7	71.3	23.0	77.0
Gambela	16.9	83.1	20.7	79.3	22.8	77.2	24.2	75.8
Harari	43.9	56.1	34.3	65.7	31.4	68.6	37.0	63.0
Addis Ababa	34.8	65.2	39.0	61.0	36.8	63.2	40.4	59.6
Dire Dawa	37.3	62.7	39.0	61.0	38.7	61.3	39.1	60.9

(Source: CSA, DHS: 2000, 2005, 2011 and 2016)

9. Conclusion and Recommendations

9.1. Conclusion

This study is designed to present a comprehensive summary of the gender data in the National Statistical System (NSS), including the CSA, line-Ministries of the basic services (e.g., Education, Health, Agriculture, Water and Road), and others institutions like Parliament, National Election Board, Federal Police, Federal Attorney, and Civil Service Commission to highlight the progress and/or disparities in gender equality in Ethiopia, particularly, at the regional level. The study provides statistical evidence for gender inequalities at both country and regional levels in different sector of the economy to suggest and inform policy in gender equality. For the purpose, comparisons are made with the help of sex-disaggregated data across the sectors and selected gender indicators, between male and female.

In light of data analysis, the study ensures significant steps taken by the GoE to bring gender equality. The fruits of such interventions are witnessed in minimizing gender gaps in the sectors like education (primary and secondary), power and decision-making etc. Structured data management and inclusion of gender-disaggregated data presents the strength of sectoral MIS to support policy and decision-making in guiding gender issues. The CSA's surveys are well capturing gender specific information on different issues like demographics and health. In addition, CSA's surveys in labor (LFS and NCLFS), agricultural (AgSS) and other domains, provide relevant gender related indicators that are helpful in understanding gender issues and gaps across the regions and sectors.

Labor Force, Time Use and Manufacturing Industries

According to the labor force survey result, an increasing trend in the female participation in country's workforce has been observed from 71.9% (as reported in 1999) to 78.8% (in 2005), with a minor decrease in the year 2013 (77.8%). the female participation in the labor force of aged 15 years and above is gradually increased in Afar, Amhara and Oromia, across all the three years (1999, 2005 and 2013). A reverse trend (of decreasing female participation in the labor force) has been observed in Somali region and Addis Ababa City Administration from 1999 to 2013.

Female's participation in formal economy labor force, at country level, increased by more than four folds' between 1999 (13.4%) and 2013 (75.9%) while male labor participation grew almost

twice (from 42.1% to 84.4%) between 1999 and 2013. Regionally, Female participation in the formal economy has increased gradually across all the regions between 1999 and 2013. In informal sector there is a higher participation of female observed in the labor force at the country level. However, a gradual decrease in their participation has been observed from as high as 85.7% in 1999 to just 17.6 % in 2005 and 23.1% by 2013. Across all the regions and two city administrations, the employed population in the informal economy for female is reported declining as compared the year 1999 with that of 2013.

Female, at country level, is also largely engaged in unpaid family jobs rather than salaried employees or self-employment. The percentage of female as wage and salaried workers and self-employment increase between 1999 and 2013. Their representation as unpaid family workers also shows increment during the same period. A decreasing trend in Tigray and Benishangul-Gumuz regions and an increase in Afar, Oromia, SNNP, Gambela, Harari and Addis Ababa City Administration in female employed population (aged 15 years above) as wage and salaried workers is observed across the survey years (1999, 2005 and 2013). Male participation is more than female for self-employment, except that for Gambela region in 2005 (where 64% female are observed being self-employed). A gradual increasing trend in the percentages of female unpaid-family workers is observed in Afar and Harari regions.

Furthermore, while female employment, at country level, is less than that of male in agriculture and industry sectors, females are found fetching more employment in service sector than male between 1999 and 2013. At regional level, female scored more employment in agriculture sector in Afar and Benishangul-Gumuz regions between 2005 and 2013. A gradual decrease in female employment in industry has also been observed in Tigray, Oromia, Somali, Harari and Dire Dawa Administration across all the three years (1999, 2005 and 2013). With regard to female employment in services, however, female participation in service sector employment has increased between 2005 and 2013, except Addis Ababa City Administration.

A gradual decrease in female unemployment has also been observed across the survey years (1999, 2005 and 2013) at county level. While a decreasing trend in female (aged 15 years and above) unemployment rate is well observed in the Amhara, Oromia, Somali, Harari and Addis Ababa City Administration, across the years, an increasing pattern is observed between 2005 and 2013 in Tigray and SNNP regions. Moreover, female youth (age 15-24 years) are relatively more

unemployed as compared to their male counterparts at country level. A gradual decrease in female youth unemployment rates throughout the years observed in Afar, Oromia, Somali, Harari and Addis Ababa City Administration

Female is more involved than male in in service and sales workers (66%), clerical/supportive staff (64.9%), craft and related trade workers (51.2%) and elementary occupations (66.8%) On the other hand, male are more than female in plant/machine staff (85.7%), managers (73.5%), skilled agricultural, forestry and fishery workers (68%), professionals (67.7%) and technicians (67.1%).

According to NCLFS result, with respect children aged 5-17 labor force involvement, more male (61.9%) are reported to be engaged in economic activities (e.g., working), whereas female (57.8%) are more participated in non-economic activities (e.g., household duties) at country level. There is also variation across the regions in children participation being male and female in economic and non-economic activities. Female children (aged 5-17 years) are also less participating in economic activities at country level (39 %). The majority of the male children are reported to be working across all the regions, except in Addis Ababa City Administration, where higher female participation in economic activity (61.5%) has been observed.

With respect to hours worked per week in economic activities, male children aged 5-17 spent more hours per week in economic activities than female. Female children are also engaged in working for more hours per week, as compared to their male counterparts in Addis Ababa City Administration, SNNP, and Somali as opposed to other regions. Across all the given housekeeping activities, female children are appeared to be spent relatively longer hours than male at country level. Specifically, female children are observed to be more engaged in caring for sick (22%) and all other members (20%) than performing activities like cleaning (15.3%) and cooking (16.2%). Female children are also observed to be spending more hours per week in performing the given housekeeping activities across all the regions and two city administrations. Male children from Oromia (19.3%), Tigray (18.8%) and Afar (19.4%) regions spent more hours per week for repairing activity. Similarly, male children spent more hours (per week) for cooking in Tigray (18.1%), Afar (21%), Oromia (17.4%), Somali (19.7%), Amhara (15.2 %) and Benishangul-Gumuz (14.5%) regions. While more male children are involved in performing works with hazard in the country, there remain some regions where high female participation is

well observed. Except Addis Ababa City Administration (64.8% for female), in all other regions female children are observed less performing the work with hazard than their male counterparts.

Furthermore, female (367 minutes per day) are found spending much of their time on Extended SNA activities, as compared to men (213 minutes per day) and male are found to spend more time than female in SNA (System of National Account), learning and other non-productive activities (like personal care/maintenance, social life & leisure and others including traveling). Similarly, males are found more spending their time in performing SNA, learning (except Oromia and Harari) and other non-productive activities in all regions and two city administrations.

Furthermore, male own more manufacturing industries (large and medium scale) than female in the country across all survey years. Female ownership in large and medium scale manufacturing industries is also increased between 2011/12 and 2015/16 in Benishangul-Gumuz (13.6% to 77%), SNNP (19.9% to 26.9%), Harari (11.8% to 14.8%) and Dire Dawa city administration (29.3% to 30.6%). Female engagement in the large and medium scale manufacturing industries is also decreased from 36.6% in 2011/12 to 35.2% in 2015/16 at country level. Their engagement is also increased between 2011/12 and 2015/16 in Afar, SNNP, Harari and Addis Ababa city administration.

Large number of small scale manufacturing industries in the country is also owned by male than female across all the three survey years (2013/14 to 2015/16). Additionally, a gradual decline in the percentage of female, being owner of small scale manufacturing industry, from about 33.4% in 2013/14 to 22.5% in 2015/16 is observed. Across all the regions, while there appeared to be fewer female owners of small scale manufacturing industry than male, their representation increased between 2013/14 to 2015/16 in Somali (35.2% to 41.3%) and Gambela (20.3% to 25%). In all other regions, male ownership of small scale manufacturing industries grew, in the survey period, from as high as 18.4% in Dire Dawa and 15.5% in Benishangul-Gumuz regions.

With respect to female ownership and participation in trade, there appeared to be fewer female owners of trade establishments than male, across all the regions. However, female ownership is seen with increasing trend between 2010/11 and 2013/14, particularly in the Addis Ababa region (33.4% to 36.6%). In a similar way, there exists an increase in women beneficiaries from small scale manufacturing enterprises from the regions like Tigray, Somali, Harari and Addis Ababa

between 2016/17 and 2017/18. This shows that women to some extent are being empowered while owning and/or participating in manufacturing and/or trade establishments of large and medium or small scale.

Agriculture

Ownership of agricultural assets such as land and livestock's are critical factors that determine the agricultural production and the wellbeing of agricultural households. From the perspectives of gender participation in agriculture world, asset ownership determine the roles and decision making of men and women in the whole process of agricultural activities and on the use of the agricultural produce. Hence, it has impact on the wellbeing and livelihood of the agricultural households. From the result of the AgSS in the last five years among the agricultural holders in Ethiopia almost the majority of agricultural land and livestock are found owned by males' agricultural holders. Female agricultural holders accounted only 17% and 16.2% of the land and livestock ownership, respectively. Hence, women are revealed marginalized in the sector, leaving the majority of the agricultural holders for male (81%) at national level. The result also found consistent across all regions in the country.

Female agricultural holder's access to agricultural extension, advisory services and credit are found minimal. From the study results females are also found less in the use of agricultural inputs (improved seed, pesticides and inorganic fertilizers) which are important in increasing agricultural productions. The survey result shows among the agricultural holder who reported having enough oxen females constitute on average less than 10 percent. Females also found very far from their male counterparts in the use of irrigation, soil water conservation practices and in participation of community water shade management practices.

The overall contribution of female agricultural holders in total output left at 11% at country level. Male is also having more livestock ownership than female holders in all livestock types. The result in livestock holding of female and male is found consistent across the regions.

Gender parity in participation and role of male and female household members in household agricultural activities (crop and livestock) revealed from the survey results. At national level 48.1 percent of the agricultural holders, reported males were mostly responsible for the household crop production activity. While household's livestock rearing activity were reported (about 46%) jointly performed by both male and female household members.

Related to the gender roles and participation in agricultural decision making male and female household members' joint decision on the use of income from the sale of crops and livestock's witnessed. Female household members in Tigray (30%) and Afar (31%) decide on income from crop and livestock's sale, respectively.

On the other hand, female household members are reported (about 73%) mainly responsible in deciding on income from livestock products. Regionally a higher percentage of female household members than males in Harie (82%), Oromia (81%) and SNNP (79%) are revealed responsible in deciding on the use of income from livestock products revealed.

Power and Decision Making

Regarding power and decision-making, female as the civil services in the country reported to be less as compared to male civil servant across the last five years. Male as civil servants, though with varying patterns, is more compared to female across all the regions except in Addis Ababa City Administration in all reporting years. Female is observed to be commanding increasing share as civil servants in in Tigray, Amhara, Oromia, Somali, SNNP, Gambela regions and Addis Ababa during the same period. Female participation, as registered voter, is also increased gradually between 2000 and 2014 at country level and in Oromia region, SNNP region and Dire Dawa Administration.

With respect to the gender representation in the police services/staff, female reported to be less representing the country, compared to male, over the reported years (2015/16, 2016/17 and 2017/18). Male representation as police staff, though with varying patterns, appeared to be much higher (as compared to female) across all the regions and reporting years.

Less female participation than male is well observed in the context of elected members of the Parliament, increasing female participation in the House of Representatives and Ministerial cabinet is well appreciating in minimizing gender gap through women empowerment and ensuring their participation in decision-making.

Female is also much less than male in holding the position of judges and being prosecutors at the country level. Female representation as judges is majorly seen growing almost in every region. Female representation as prosecutors increased by 2017/18, majorly, in Dire Dawa

Administration, Addis Ababa City Administration, Tigray, Harari and Benishangul-Gumuz, and remained lower in Somali, Afar, Oromia and SNNP during the same year.

Education

According to the result from EMIS, the gross enrollment rate and net enrolment rate for girls in the pre-primary level remains lower than boys, from 2013/14 to 2016/17. An increasing trend has also been observed in the pre-primary gross enrollment rate for both boys and girls during the same period, across all the regions, except in Addis Ababa Aity Administrations and Dire Dawa Administration. Moreover, increasing trend has been witnessed in the pre-primary net enrollment rate for both sexes between 2013/14 and 2017/18, across all the regions.

Both gross enrollment rate and net enrollment rate in the first cycle (grade 1-4), second cycle (grade 5-8) and overall primary cycle (grade 1-8) for girls remain less, as compared to boys, at the country level between 2013/14 and 2017/18. There appeared to be high gross enrollment rate for boys than girls in first cycle across all the regions and years, in the second cycle in the majority of the regions except Amhara region (2013/14-2017/18) and Addis Ababa City Administration between 2014/15 and 2017/18, and in the overall primary cycle (grade 1-4) across all the regions, except Addis Ababa between 2013/14 and 2017/18. Net enrollment rate for boys remain high as compared to girls in the first cycle (grade 1-4) in the majority of the regions except Addis Ababa City Administration across all survey years and also overall primary cycle (grade 1-4) in the majority of the regions except Tigray and Amhara in 2013/14 and Addis Ababa between 2013/14 and 2017/18. However, there appeared to be high net enrollment rate for girls than boys in second cycle in Tigray region, Amhara region and Addis Ababa City Administration between 2013/14 and 2017/18.

Girls gross enrollment rate for both the secondary school (grade 9-10) and preparatory school (grade 11-12) is less than that of boys at the country level across all the reported years. However, there exists an increasing trend in gross enrollment for girls in the secondary school from 38% in 2013/14 to 45% in 2017/18 and in the preparatory school for girls increased from 9% to 12% between 2013/14 and 2017/18 and for boys it increased from 11% to 14% during that time, respectively. While the girl gross enrollment rate in the secondary school is higher than boys in Addis Ababa City Administration and Tigray and Amhara regions, there appeared to be high gross enrollment rate for boys in the preparatory school across all the regions, except Addis

Ababa for the last five years. Girls NER in the secondary school (grade 9-10) is more than that of boys between 2013/14 to 2016/17. Specifically, there exists an increasing trend in net enrollment of secondary school for the girls (from 21% in 2013/14 to 24% in 2017/18). There appeared to be high net enrollment rate for girls in the secondary school in Tigray region, Harari region, and Addis Ababa City Administration between 2014/15 and 2017/18. Moreover, equal net enrollment rate for both sexes is observed for the preparatory school during the reported years both at country level and across all regions.

Male being as literate is more than female literate across all the four DHS surveys at the country level. Moreover, female literacy rate has declined between 2000 and 2016 more rapidly (50.8% to 35.1%) than that for male (52.3% to 41.4%). The majority of the literate persons are also male than female across all the regions. However, an increase in the literacy rate for female has been reported between 2000 and 2016 in the Tigray (17% to 51%), Amhara (16% to 45%), Oromia (15.3% to 37.3%), Benishangul-Gumuz (17% to 38.7%), SNNP (17.4% to 35.3%), and Gambela (19.8% to 50%).

There appeared to be no difference between the two sexes in the promotion rate for first cycle (grade 1-4), the second cycle (grade 5-8) and overall primary cycle (grade 5-8) at country level during the reported years (2013/14 to 2016/17). At regional level, promotion rate for girls appeared being lowest in Afar and the highest is observed in Addis Ababa for both the first cycle (grade 1-4) and the second cycle (5-8) in 2016/17. There appeared also a high promotion rate for boys in the primary cycle (grade 1-8) across all the regions and reported years (2013/14 to 2016/17), except Tigray and Amhara regions.

At the country level no difference has been observed between the two sexes in the dropout rate for first cycle (grade 1-4). Dropout rate of girls appeared to be maintaining higher than boys in the second cycle students (grade 5-8) for all the reported years and in the overall primary cycle (grade 1-8) for the years 2013/14 and 2015/16. Regionally, there appeared to be relatively higher dropout rate for girl than boys in the second cycle (5-8) across all the regions and reported years (2013/14 to 2016/17) and in the primary level (1-8) in the majority of the regions and reported years. However, there appeared to be relatively higher dropout rate for boy students in the primary first cycle (1-4), across all the regions and reported years except in Oromia and Harari regions. In 2017/18, in the primary first cycle (1-4) the least dropout rate for girls is appeared in

Addis Ababa (0.01%) City Administration, and the highest dropout rate is observed in Afar (0.29%) followed by Oromia (0.17%). In in the second cycle (5-8) also the least dropout rate for girls is appeared in Addis Ababa (-0.01%) City Administration, the highest dropout rate is observed in Afar region (0.22%) followed by Oromia (0.12%). In the same year, in 2016/17, there is no dropout for girls in Addis Ababa City Administration for the overall primary cycle (grade 1-8), and the highest dropout rate is observed in Afar region (0.27%).

Regarding teachers and student statistics, there appeared to be relatively higher enrollments for male in the TVET, as compared to female, in Afar, Somali and Gambela between 2015/16 and 2017/18 while in Amhara region female outnumbered male between 2015/16and 2017/18). In 2017/18, however, the least percentage of female enrollments in TVET is appeared in Afar (40%) and the highest in Amhara region (55%). Moreover, female teachers in TVET are much less than male teachers across all the three years, and male teachers increased from 78% in 2015/16 to 80% in 2017/18 at the country level. In general, there appeared to be relatively more male teachers in the TVET, as compared to female, across all the regions and reported year.

There appeared to some increase in the admission of girls between 2013/14 (30.3%) and 2016/17 (36%), reverse trend has been observed for male students admitted to undergraduate program during that time.

An increasing trend is also observed in the percentage of female graduates in the postgraduate (second degree) program (from 14.9% in 2013/14 to 19% in 2016/17), their representation is still below 20% against male postgraduates in the country. Similarly, female representation as postgraduate (third degree) student is much less than male and with decreasing trend (16.3% in 2013/14 to 13% in 2016/17). Female teacher in higher education institutions is also very low (below 14%) across all the reporting years, though a minor increase has been observed from 11.7% in 2013/14 to 13.6% in 2016/17.

Demography and Health

According to the population census 1994 & 2007, highest population fall in the age group of 5-9 years, and the lowest count falls in the age group of 70-74 years. The young female population is growing almost equal to their male counterparts, though in older age groups less female against male are reported. The male-female sex-ratio is reported higher for the age groups belonging to less than 20 years and above 55 years, in both census years. Growth in female population in

middle age groups (30-44 years) is obsrved as compared to male. However, a gradual decline in female population is observed in senior age groups (above 45 years). At region level a general trend of increasing female population is observed, across all the regions. Over all, a minor increase in the number of female from 98.2% in 1994 to 98.8% in 2007 at country level.

TFR at country level is found decreasing from 5.5 children by the year 2000 to 4.6 by 2016, such pattern of decreasing TFR is also witnessed across most of the regions, except Somali and Afar, where growth has been observed during the same period. The use of modern contraceptive methods has increased more than five times (from 6.3% in 2000 to 35.3% in 2016) among the married women of the country. More married women felt satisfied with the usage of modern contraceptive methods, in the majority of the regions, between 2011 and 2016.

A decreasing trend in children under age 5 who are stunted has been observed for both sexes across the survey years. Male children who are stunted are higher than female children between 2000 and 2016. More over more male are found obese (BMI>=25) than females. The share of men's being obese increased from 5.7% in 2011 to 7.6% in 2016, whereas female's overweight or obese share increased from 2.5% to 3.5% between the two years. Regionally, an increasing pattern in both sexes being overweight or obese has also been observed in Tigray, Oromia, Benishangul-Gumuz, Gambela, Harari and Addis Ababa city administration between 2011 and 2016.

Even though, an increasing trend in anemia cases observed for both sexes from 2011 to 2016, more female (as compared to male) are found being the victim of anemia. Specifically, percentage of male with anemia is increased from 11.3% in 2011 to 14.5% in 2016, and that of female increased from 16.6% to 23.6% in the same period.

A gradual decline in the maternal mortality ratio is observed from 1.68% (in 2000) to 0.67% (in 2016). The percentage of women who received antenatal care (ANC) increased from 26.7% in 2000 62.4% in 2016. During this period an increase also observed in immunization of both sexes. However, more male children (14.7%) fully immunized as compared to female children (13.8%) in the year 2000. Immunized female children (40.3%) found larger than that of male children (36.5%) for full immunization by the year 2016. From all regions Addis Ababa appeared to be having more fully immunized children than those in any other regions.

Between 2000 and 2016, a consistent declining trend of adult mortality for both sexes observed across the regions. The adult mortality rate for female declined from 6.6% to 2.7% at national level. A steady decline in Maternal mortality rate is being observed in Tigray (1.53% to 0.73%), Amhara (1.76% to 0.44%), Oromia (1.8% to 0.88%) and SNNP (1.41% to 0.54%) regions. Other regions also showed varying but declining patterns during the same period. At country level maternal mortality ratio decline observed from 1.68% (in 2000) to 0.67% (in 2016).

HIV prevalence has been noticed declining for both sexes. Among female (aged 15-24 years) a major decline in prevalence of HIV from 1.1% (in 2005) to 0.3% (in 2016) observed. Though, females are found more prominent victim of HIV as compared to male. In regions like Benishangul-Gumuz (0.9% to 1.6%), SNNP (0.1% to 0.5%) and Gambela (5.5% to 5.7%), an increasing trend for female victim of HIV observed in the same duration.

In the majority of regions more female than men who were tested for HIV are found HIV positive. Between 2015/16 and 2017/18, somewhat increasing trends are observed across all the regions, except in Tigray and Gambela, where HIV positive percentage of female declined from 61.2% to 57.8% and 56.5% to 56.3%, respectively. From the results male have more comprehensive knowledge about HIV than their female counterparts at national and across regions.

Water, Sanitation and Electricity

Male headed households are found having more access to drinking water than female headed households, across the three surveys (2005, 2011 and 2016). However, there is an increase in female headed household access to drinking water. A gradual increase in the female headed household access to drinking water observed between 2005 and 2016 in Afar, Somali, Harari, Gambela and Tigray regions, and Dire Dawa Administration.

Female headed household are found having less access to improved sanitation, as compared to male headed household, for all the survey years. However, a growing trend in the female headed household access to improved sanitation is observed in almost all the regions, except in Amhara, Oromia, Gambela and Harari where their participation declined against male headed household.

Compared to male headed household, female headed household has less access to electricity across the regions. However, female headed household with access to electricity is found gradually increasing between 2000 and 2016.

9.2. Recommendations

In the light of findings and conclusion, following recommendations can be forwarded:

- There remain challenges in obtaining gender-disaggregated data from the sectoral systems (MIS), in particular, which dealt with poverty and welfare, water, sanitation, electricity and roads/transport. Therefore, line ministries dealing with such areas/sectors should enrich their MIS database with gender-disaggregated data that can be collected as a part of routine (administrative data) or through survey or appropriate proxy indicators can be agreed to measure the needed one.
- Considering that CSA has good understanding for conducting census and surveys that use gender-indicators, some training should be provided by the CSA to the corresponding/responsible staff in line-ministries on collection, processing and reporting of gender-disaggregated output.
- As many of the gender-specific indicators or gender disaggregated data pertaining to the areas like Road, Agricultural Development and Rural Transformation, Reproductive Health, Water and Energy, are missing, attempt should be made to streamline the NSS to produce and use at least some of the gender-indicators targeting these areas of development.
- To gear-up the women empowerment in Ethiopia and specific to regions, public-private partnership can be explored in providing more employment opportunities to the women to enhance their social status and participation in decision-making.
- Similarly, all identified/agreed and/or relevant additional indicators to perform gender analysis related to labor force and employment/unemployment status, by female and male, should be considered from regional perspective.
- Gender balancing in the employment should be performed through equal opportunities provided to the female, both in the public and private sectors, while comparing the national and regional domains interests/indicators at the same time.
- To ensure that gender statistics are frequently and consistently produced and monitored, it should be integrated within the NSS, by taking on a policy-oriented approach (gender mainstreaming) that goes beyond providing only sex-disaggregated data. As the

production of official gender statistics does not exist in isolation, it should be integrated into the official statistical system, producing gender statistics based on areas/sectors and problems identified in policies, plans and programs of national/regional development.

- Finally, the CSA should increase awareness at all levels of the importance of sex and age disaggregation in all the sectoral MIS and how such disaggregation helps meeting GTP, SDGs and other sectoral programs (HSDP, ESDP etc.) goals at the regional level. Specifically, CSA should support line ministries in their capacity building through improved training on gender-disaggregated indicators and data collection, and analysis to reveal gender-related findings to facilitate gender-guided policy/program.

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Annex 1: Availability of Gender Disaggregated Indicators with in NSS

Labor Force and Time Use

Indicators	Availability remarks
Labor force participation rate (% of population ages 15+) by sex	Extracted from LFS
Children in employment (% of children ages 7–14) by sex	Extracted from LFS
Wage and salaried workers (% of employed ages 15+) by sex	Extracted from LFS
Self-employed workers (% of employed ages 15+) by sex	Extracted from LFS
Unpaid family workers (% of employed ages 15+) by sex	Extracted from LFS
Employment in agriculture (% of employed ages 15+) by sex	Extracted from LFS
Employment in industry (% of employed ages 15+) by sex	Extracted from LFS
Employment in service (% of employed ages 15+) by sex	Extracted from LFS
Employment rate within formal economy, by sex and market sectors (agriculture, industrial, services, etc.)	Extracted from LFS
Labor participation rate in the formal economy by sex	Extracted from LFS
Labor participation in the informal economy, by sex	Extracted from LFS
Permanent or full-time employment rate, by sex	Extracted from LFS
Percentage of married workforce, by sex	Extracted from LFS
Unemployment rate (% of labor force ages 15+)	Extracted from LFS
Youth unemployment rate (% of labor force ages 15–24)	Extracted from LFS
Long-term unemployment rate (% total unemployment)	Extracted from LFS
Percentage distribution of time spent (hours per week) by sex	Extracted from LFS
Average wages and salaries of workers and average number of hours worked, by sex of worker	Extracted from LFS
Part-time employment rate, by sex	Cannot be Extracted

Distribution of children by activity status and sex	Extracted from NCLS
Distribution of Children aged 5-17 years by current activity status and gender	Extracted from NCLS
Distribution of working children by Sex	Extracted from NCLS
Percentage distribution of children 5 – 17 years by highest level of educational attainment, sex, and age group	Extracted from NCLS
Percentage distribution of children 5 – 17 years by reason why they never attended school by sex and age group	Extracted from NCLS
Percent of children 5 – 17 years who participated in economic activity in the last 12 months by sex	Extracted from NCLS
Percentage distribution of children 5-17 years by hours worked per week and, sex, , age group	Extracted from NCLS
Distribution of working children aged 5-17 years by status of work and by sex	Extracted from NCLS
Population distribution of working children 5-17 year by children in economic activity, child labor and hazardous forms of child labor by sex	Extracted from NCLS
Percentage distribution of working children 5-17 by type of occupation and sex,	extracted (omitted because of zero figures)
Percentage distribution of working children by type of industry, sector, gender and age group	extracted (omitted because of zero figures
Percentage distribution of working children by employment status, sex and age group	extracted (omitted because of zero figures
Percentage distribution of children by number of hours spent in housekeeping activities by sector, gender and age group	Extracted from NCLS
Distribution of child labour and hazardous form of child labour by sex	Extracted from NCLS
Proportion of Children at Work and/or School by Sex	Extracted from NCLS
Distribution of time spent in various major activities (paid formal, paid informal, unpaid, learning, personal &care maintenance, social life& leisure, other including traveling) in a 24-hour average day by sex and age	Extracted from TUS
Average time spent by women in unpaid and paid work (in minutes per day) by sex and age	Extracted from TUS

Average time spent by men in unpaid and paid work (in minutes per day) by sex and age	Extracted from TUS
Share of unpaid and paid work in total women's work by sex and age	Extracted from TUS
Share of unpaid and paid work in total men's work by sex and age	Extracted from TUS
Distribution of unpaid work between unpaid domestic services, unpaid care services and unpaid services to other households by sex and age	Extracted from TUS
Number of jobs in tourism industries as a proportion of total jobs and growth rate of jobs, by sex	Cannot be extracted
Proportion of adults (15 years and older) with an account at a bank or other financial institution or with a mobile-money-service provider by sex	Cannot be extracted
Total poverty head count (poverty Incidence) by sex of household head	Cannot be extracted
Food poverty head count by sex of household head	Cannot be extracted
Total poverty gap by sex of household head	Cannot be extracted
Food poverty gap by sex of household head	Cannot be extracted
Proportion of households under poverty line (PPP base) by sex of household head	Cannot be extracted

Manufacturing Industry Surveys

Large and Medium Scale Manufacturing Industry Survey (LMMIS)	
Indicators	Availability remarks
Proportion of owner of the establishment by sex	Extracted from LMMIS
Private initial capital by ownership by sex of owner	Extracted from LMMIS
Number of permanent employee in each industrial group by sex	Extracted from LMMIS
Percent of Ethiopian employee/ permanent by sex	Extracted from LMMIS
Small Scale Manufacturing Industry Survey (SSMIS)	
Proportion of owner of the establishment by sex	Extracted from SSMIS

Private initial capital by ownership by sex of owner	Extracted from SSMIS
Number of Permanent Employee in each industrial group by sex	Extracted from SSMIS
Percent of Ethiopian employee/ permanent by sex	Extracted from SSMIS
Distributive Trade Survey (DTS)	
Proportion of individually owner of the establishment in wholesale, Retail sales and Motor Vehicles Sales & Maintenance trade by sex	Extracted from DTS
Percentages of persons engaged in wholesale, Retail and Motor Vehicles Sales & Maintenance trade establishment by sex	Extracted from DTS
Percent of employee/permanent for wholesale, Retail and Motor Vehicles Sales & Maintenance trade by sex	Extracted from DTS
Sectors	
Number of enterprises graduated from micro to small industries by sex of owner	Extracted from Small Scale Enterprise
Number of enterprises graduated from small to medium industries by sex of owner	Extracted from Small Scale Enterprise

Agriculture

Indicators	**Availability remarks**
Agricultural training and extension programs access, by sex of holder of sub-holder	Extracted from Agss
Adoption of extension messages by sex of holder or sub-holder	Extracted from Agss
Draught animals access, by sex of holder or sub-holder	Extracted from Agss/ESS
Irrigation, erosion control and water harvesting structures access, by sex of holder or sub-holder	Extracted from Agss
Access to selected agricultural inputs by sex of holder or sub-holder	Extracted from Agss

Access to selected agricultural technologies by sex of holder or sub-holder	Extracted from Agss
Land ownership of women, rights or access to own	Extracted from Agss
Percentage of farms in individual ownership that are owned by women	Extracted from Agss
Land Holders by sex of holders	Extracted from Agss
Land holding size by sex of holders	Extracted from Agss
Yield/ Productivity by sex of holders	Extracted from Agss
Livestock Ownerships by Sex of holders	Extracted from ESS
Area cultivated by sex of holder	Extracted from Agss/ ESS
Access to credit by sex of holder	Extracted from Agss/ ESS
Crop production and productivity by sex of holder	Extracted from Agss/ ESS
Average number of livestock by species and sex of the holder	Extracted from Agss/ ESS
Percentage of holdings with irrigated land by sex of the holder	Extracted from Agss/ ESS
Percentage of holdings using chemicals by sex of holder	Extracted from Agss/ ESS
Average productivity of crops (quintal/ha) by sex of holder or household head	Extracted from Agss/ ESS
Average productivity of cereal crops (quintal /hectare) by sex of holder or household head	Extracted from Agss/ ESS
Number of Beneficiaries Received Rural Land Use Certificate by sex	Compiled from MOA
Percentage of household members devoted more amount of time to agricultural activities by sex affiliated category	Extracted from Agss gender module
Percentage of household members devoted more amount of time to livestock rearing activities by sex affiliated category	Extracted from Agss gender module
Percentage of household members more frequently bought agricultural inputs by sex affiliated category	Extracted from Agss gender module

Percentage of household members received more agricultural extension trainings by sex affiliated category	Extracted from Agss gender module
Percentage of household members received/used more agricultural credit by sex affiliated category	Extracted from Agss gender module
Percentage of household members decides more frequently on selling of agricultural crops by sex affiliated category	Extracted from Agss gender module
Percentage of household members frequently taking to the market or selling of agricultural crops by sex affiliated category	Extracted from Agss gender module
Percentage of household members decides more frequently on selling of livestock by sex affiliated category	Extracted from Agss gender module
Percentage of household members frequently taking to the market or selling of livestock products by sex affiliated category	Extracted from Agss gender module
Percentage of household members frequently decides related to the use of household income obtained from selling of agricultural crops by sex affiliated category	Extracted from Agss gender module
Percentage of household members frequently decides related to the use of household income obtained from selling of livestock by sex affiliated category	Extracted from Agss gender module
Percentage of household members frequently decides related to the use of household income obtained from selling of livestock products by sex affiliated category	Extracted from Agss gender module
Agriculture insurance purchase, by sex and percentage working in agriculture	Cannot be compiled from Agss/ESS/MOA
Contributing family workers, by sex and percentage of total employed	Cannot be compiled from Agss/ESS/MOA
Poverty alleviation grants recipients of vulnerable population, by sex	Cannot be compiled from Agss/ESS/MOA
Proportion of Women Receiving Skills Training for Income Generation	Cannot be compiled from Agss/ESS/MOA
Tenure status of land used by sex of holder	Cannot be compiled from Agss/ESS/MOA
Access to saving by sex of holder	Cannot be compiled from Agss/ESS/MOA

Type and amount of saving received by sex of holder	Cannot be compiled from Agss/ESS/MOA
Animal production and productivity by sex of the household member	Cannot be compiled from Agss/ESS/MOA
Amount of time devoted to domestic and socio-economic activities by sex of holding member and sex of holder	Cannot be compiled from Agss/ESS/MOA
Percentage of holdings participating in farmer organizations and cooperatives by sex of the holder	Cannot be compiled from Agss/ESS/MOA
Average productivity of industrial crops (quintal /ha) by sex of holder or household head	Cannot be compiled from Agss/ESS/MOA
Average productivity of export crops (quintal /ha) by sex of holder or household head	Cannot be compiled from Agss/ESS/MOA
Average productivity of tea (quintal /ha) by sex of holder or household head	Cannot be compiled from Agss/ESS/MOA
Average productivity of spices (quintal /ha) by sex of holder or household head	Cannot be compiled from Agss/ESS/MOA
Number of Farmers in Thousands by sex	Cannot be compiled from Agss/ESS/MOA
Number of Pastorals in Thousands by sex	Cannot be compiled from Agss/ESS/MOA
Number of Youth Farmers in Thousands by sex	Cannot be compiled from Agss/ESS/MOA
Number of Cooperatives Unions by sex	Cannot be compiled from Agss/ESS/MOA
Number of Members of Primary Cooperatives by sex	Cannot be compiled from Agss/ESS/MOA
Number of Youth and Women Benefited from Safety net Program by sex	Cannot be compiled from Agss/ESS/MOA
Number of Household Heads Graduated from Safety net Program by sex	Cannot be compiled from Agss/ESS/MOA

Power and Decision Making

Indicators	Availability remarks
Number & Proportion of Women in the Parliament	Extracted/ Compiled
Number & Proportion of Women in the Cabinet	Extracted/ Compiled
Number & Proportion of Women's Votes and Women's Vote Turnout	Extracted/ Compiled
Registered voters by sex (%)	Extracted/ Compiled
Ratio of females to male voters in election (%)	Extracted/ Compiled
Women's share of core ministers/ cabinet	Extracted/ Compiled
Women's share of police officers	Extracted/ Compiled
Number of women benefited from credit service	Extracted/ Compiled
Number of women benefited from vocational adult education program	Extracted/ Compiled
Decision making role of women at the judiciary system (%)	Extracted/ Compiled
Proportion of girls and women aged 15-49 years who have undergone female genital mutilation/cutting, by age	Extracted/ Compiled
Proportion of time spent on unpaid domestic and care work, by sex, age and location	Extracted/ Compiled
Proportion of women judges prosecutors, etc	Extracted/ Compiled
Number & Proportion of Women in Political Party Executive Committees	Cannot be Extracted/ Compiled
Number & Proportion of Women in Executive Positions in the Civil Service	Cannot be Extracted/ Compiled
Number & Proportion of Female Government Officials in Leadership Training	Cannot be Extracted/ Compiled
Parliamentary committee chaired by women (%)	Cannot be Extracted/ Compiled
Women in local civil service ministries (%)	Cannot be Extracted/ Compiled
Appointees to senior-level positions in political and civil service by field,	Cannot be Extracted/

level and sex	Compiled
Female legislators, senior officials and managers (% of total	Cannot be Extracted/ Compiled
Women's share of members of municipal councils or other local area governing bodies	Cannot be Extracted/ Compiled
Women's share of senior level civil servants	Cannot be Extracted/ Compiled
Proportion of women and girls subjected to sexual and physical violence disaggregated by intimate partner or non-intimate partner	Cannot be Extracted/ Compiled
Number of children who are victims of human trafficking per 100 000 people	Cannot be Extracted/ Compiled
Number of reported cases of violence by intimate or non-intimate partner	Cannot be Extracted/ Compiled

Education Sector

Indicators	**Availability remarks**
Gross enrollment ratio, by sex (primary education)	Extracted from EMIS
Gross enrollment ratio, by sex (secondary education)	Extracted from EMIS
Gross enrollment ratio, by sex (tertiary education)	Extracted from EMIS
Net enrollment ratio, by sex (primary education)	Extracted from EMIS
Net enrollment ratio, by sex (secondary education)	Extracted from EMIS
Net enrollment ratio, by sex (tertiary education)	Extracted from EMIS
Vocational and technical enrollment, by sex (percentage of total secondary enrollment)	Extracted from EMIS
Repetition rate, by sex (primary education)	Extracted from EMIS
Repetition rate, by sex (secondary education)	Extracted from EMIS
Dropout rate, by sex (primary education)	Extracted from EMIS
Dropout rate, by sex (secondary education)	Extracted from EMIS

Grade 1 gross enrolment rate (%)	Extracted from EMIS
Grade 1 net enrolment rate (%)	Extracted from EMIS
Total number of students admitted to preparatory school (11-12)	Extracted from EMIS
Total number of students admitted to TVET	Extracted from EMIS
Total number of students admitted to under graduate degree program	Extracted from EMIS
Number of graduates in undergraduate program in higher educational institutions	Extracted from EMIS
Total number of students admitted to post graduate /second degree/ program	Extracted from EMIS
Total number of students admitted to post graduate /Third degree/ program	Extracted from EMIS
Number of graduates in postgraduate /second degree/ program	Extracted from EMIS
Number of graduates in postgraduate /Third degree/ program	Extracted from EMIS
Primary school 1st cycle 4th grade completion/promotion rate (%)	Extracted from EMIS
Primary school 2nd cycle 8th grade completion/ promotion rate (%)	Extracted from EMIS
Children out of school/ drop out, primary,	Extracted from EMIS
Ratio of female to male primary enrollment (%)	Extracted from EMIS
Ratio of female to male secondary enrollment (%)	Extracted from EMIS
Ratio of female to male tertiary enrollment (%)	Extracted from EMIS
Ratio of girls to boys in primary and secondary education (%)	Extracted from EMIS
Repeaters, primary, female (% of female enrollment)	Extracted from EMIS
Repeaters, primary, male (% of male enrollment)	Extracted from EMIS
% of children in pre-school age attending pre-school by sex	Extracted from EMIS
Ratio of female trainers in TVET institutions (%)	Extracted from EMIS
Survival rate to grade 5 by sex	Extracted from EMIS
Completion rate, by sex (primary, secondary, and tertiary education)	Extracted from EMIS

Female share of graduates by field of study (percentage, tertiary)	Extracted from EMIS
Gross intake ratio in first grade of primary education, female (% of relevant age group)	Extracted from EMIS
Literacy rate by sex	Extracted from WMS
Net attendance ratio, by sex (primary and secondary education)	Cannot be Extracted from EMIS
Proportion of schools with access to single-sex basic sanitation facilities	Cannot be extracted

Demography and Health

Indicators	Availability remarks
Percentage distribution of the population by age group for each sex, and women per 100 men in each age group	Extracted from Census
Number of households by sex of head	Extracted from Census
Female-headed households (%)	Extracted from Census
Sex ratio at birth (boys per girls)	Extracted from Census
Maternal mortality ratio	Extracted from DHS
Mortality rates by sex	Extracted from DHS
Prevalence of under-nutrition Percentage of women aged 15-49 years	Extracted from DHS
Contraceptive prevalence (% of women ages 15-49)	Extracted from DHS
Fertility rate, total (births per woman)	Extracted from DHS
Prevalence of HIV, (% ages 15-24) by sex	Extracted from DHS
Prevalence of HIV/AIDS by sex (percentage)	Extracted from DHS
Comprehensive knowledge of HIV	Extracted from DHS
Under 5 Stunting prevalence, by sex (height-for-age)	Extracted from DHS
Under 5 Underweight prevalence, by sex (weight-for-age)	Extracted from DHS

Under 5 Wasted prevalence, by, sex (weight-for-height)	Extracted from DHS
People considered malnourished, by age and sex (percentage)	Extracted from DHS
Anemia in women of child-bearing age (percentage)	Extracted from DHS
Women overweight or obese (percentage and ratio)	Extracted from DHS
Demand for family planning (contraception) satisfied	Extracted from DHS
Sex before age 15 years, by sex	Extracted from DHS
Sex with multiple partners, by sex	Extracted from DHS
Coverage of fully immunized children (%) by sex	Extracted from DHS
Proportion of women of reproductive age (aged 15-49 years) who have their need for family planning satisfied with modern methods	Extracted from DHS
HIV/AIDS incidence rate (%) by sex	Extracted from HMIS
Incidence rate of Malaria (%) by sex	Extracted from HMIS
Total Fertility Rate (%)	Extracted from DHS
% of eligible population with HIV having access to ARV	Extracted from HMIS
Antenatal care coverage at least 4 visits (%)	Cannot be extracted from DHS/HMIS
Pentavalent 3 vaccination coverage (%) by sex	Cannot be extracted from DHS/HMIS
Measles vaccination coverage (%) by sex	Cannot be extracted from DHS/HMIS
Under 5 mortality per 1000 children by sex	Cannot be extracted from DHS/HMIS
Detection rate of all forms of TB (%) by sex	Cannot be extracted from DHS/HMIS
Incidence rate of Malaria (%) by sex	Cannot be extracted from DHS/HMIS
Proportion of pregnant women who slept under ITN (%)	Cannot be extracted from DHS/HMIS
HIV/AIDS incidence rate (%) by sex	Cannot be extracted

	from DHS/HMIS
Adult ART coverage (%) by sex	Cannot be extracted from DHS/HMIS
% of eligible population with HIV having access to ARV	Cannot be extracted from DHS/HMIS
Proportion of births attended by skilled health personnel	Cannot be extracted from DHS/HMIS
Number of new HIV infections per 1,000 uninfected population by sex,	Cannot be extracted from DHS/HMIS
Tuberculosis incidence per 1,000 population by sex	Cannot be extracted from DHS/HMIS
Malaria incidence per 1,000 population by sex	Cannot be extracted from DHS/HMIS
Hepatitis B incidence per 100,000 population by sex	Cannot be extracted from DHS/HMIS
Mortality rate attributed to cardiovascular disease, cancer, diabetes or chronic respiratory disease by sex	Cannot be extracted from DHS/HMIS

Road, Water, Sanitation and Electricity

Indicators	**Availability remarks**
Percentage of households with access to sources of drinking water by sex for urban & rural area	Extracted from DHS
Percentage of households with access to improved sanitation by sex for urban & rural area	Extracted from DHS
Proportion of time spent to collect drinking water by sex	Extracted from TUS
Proportion of population with access to Electricity by sex	Extracted from DHS
Proportion of water users committee by sex	Cannot be extracted
Percentage of households' or individuals with access to appropriate road infrastructure by sex	Cannot be Compiled/Accessed
Persons participating in road infrastructure design and implementation by sex	Cannot be

	Compiled/Accessed
Travel time saved (hours per day) by women and men due to improved road infrastructure	Cannot be Compiled/Accessed
Number of women who work in road maintenance operations	Cannot be Compiled/Accessed
Number of female working in supervisory positions for road construction	Cannot be Compiled/Accessed
Number of deaths by major cause, sex and age group	Cannot be Compiled/Accessed
Percentage distribution of deaths by cause sex and age group	Cannot be Compiled/Accessed
Proportion of population with primary reliance on clean fuels and technology by sex	Cannot be extracted

Annex 2: The Minimum Set of Gender Indicators

I. Economic structures, participation in productive activities and access to resources

Indicator #	Indicator
I. Economic structures, participation in productive activities and access to resources	
1	Average number of hours spent on unpaid domestic work by sex (Note: Separate housework and child care if possible)
2	Average number of hours spent on paid and unpaid domestic work combined (total work burden), by sex
3	Labor force participation rate for persons aged 15-24 and 15+, by sex
4	Proportion of employed who are own account workers, by sex
5	Proportion of employed who are contributing family workers, by sex
6	Proportion of employed who are employers, by sex
7	Percentage of firms owned by women, by size
8	Percentage distribution of employed population by sector, each sex (Sectors here refer to Agriculture; Industry; Services)
9	Informal employment as a percentage of total non-agricultural employment, by sex
10	Youth unemployment rate for persons aged 15-24 by sex
11	Proportion of population with access to credit, by sex
12	Proportion of adult population owning land, by sex
13	Gender gap in wages
14	Proportion of employed working part-time, by sex
15	Employment rate of persons aged 25-49 with a child under age 3 living in a household and with no children living in the household, by sex
16	Proportion of children under age 3 in formal care

17	Proportion of individuals using the Internet, by sex
18	Proportion of individuals using a mobile cellular telephone, by sex F.3
19	Proportion of households with access to mass media (radio, TV, Internet), by sex of household head
II. **Education**	
20	Youth literacy rate of persons (15-24 years) , by sex
21	Adjusted net enrolment rate in primary education by sex
22	Gross enrolment ratio in secondary education, by sex
23	Gross enrolment ratio in tertiary education, by sex
24	Gender parity index of the gross enrolment ratio in primary, secondary and tertiary education
25	Share of female science, engineering, manufacturing and construction graduates at tertiary level
26	Proportion of females among tertiary education teachers or professors
27	Adjusted net intake rate to the first grade of primary education, by sex
28	Primary education completion rate (proxy), by sex
29	Gross graduation ratio from lower secondary education, by sex
30	Effective transition rate from primary to secondary education (general programs), by sex
31	Educational attainment of the population aged 25 and older, by sex
III. Health and related services	
32	Contraceptive prevalence among women who are married or in a union, aged 15-49
33	Under-five mortality rate, by sex
34	Maternal mortality ratio

35	Antenatal care coverage
36	Proportion of births attended by skilled health professional
37	Smoking prevalence among persons aged 15 and over, by sex
38	Proportion of adults who are obese, by sex
39	Women's share of population aged 15-49 living with HIV/AIDS
40	Access to anti-retroviral drug, by sex
41	Life expectancy at age 60, by sex
42	Adult mortality by cause and age groups
IV. Public life and decision-making	
43	Women's share of government ministerial positions
44	Proportion of seats held by women in national parliament
45	Women's share of managerial positions
46	Percentage of female police officers
47	Percentage of female judges
V. Human rights of women and girl children	
48	Proportion of ever-partnered women (aged 15-49) subjected to physical and/or sexual violence by a current or former intimate partner, in the last 12 months
49	Proportion of women (aged 15-49) subjected to sexual violence by persons other than an intimate partner, since age 15
50	Prevalence of female genital mutilation/cutting (for relevant countries only)
51	Percentage of women aged 20-24 years old who were married or in union before age 18
52	Adolescent birth rate

Annex 3: Tables for Some Indicators in Absolute Number Figures

Manufacturing Industry

Number of benefited people from small-scale enterprise by sex, region and year

	2016/17		2017/18	
Region	Male	Female	Male	Female
Country Total	1,105,441	633,575	1,040,239	588,437
Tigray	105,882	79,381	65,389	55,512
Afar	2,225	1,493	259	54
Amhara	184,763	118,312	194,665	118,736
Oromia	318,401	200,840	267,512	162,975
Somali	21,828	8,967	20,074	16,618
Benishangul-Gumuz	6,660	4,167	4,636	2,524
SNNP	181,910	146,485	162,464	112,872
Gambela	9,095	5,647	5,873	3,260
Harari	7,826	4,475	5,778	3,847
Addis Ababa	54,534	37,740	67,887	49,687
Dire Dawa	15,528	12,210	16,407	9,642

(Source: Ethiopia Small Scale Enterprise: 2016/17 and 2017/18)

Agriculture

Number of agricultural holders by sex, regions and survey years

	2013/14		2014/15		2015/16		2016/17		2017/18	
Region	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Country Total	12,842,528	3,228,558	13,253,662	3,144,628	14,418,761	3,362,010	17,519,081	4,110,364	14,480,109	3,413,969
Tigray	741,125	280,244	749,174	249,064	734,960	249,059	746,883	266,778	766,749	277,102
Afar	59,161	13,606	79,730	19,230	25,052	5,170	706,055	296,489	44,887	9,194
Amhara	3,620,514	881,622	3,758,896	862,421	3,908,228	913,757	4,045,180	968,180	4,207,377	1,005,192
Oromia	4,849,005	1,064,589	4,990,181	1,088,814	5,399,376	1,119,660	7,283,963	1,435,516	6,202,907	1,228,710
Somali	146,213	40,666	146,470	33,366	117,721	25,869	242,556	64,494	170,913	33,512
Benishangul-Gumuz	183,891	50,612	184,711	46,304	177,532	47,956	187,622	51,763	190,454	59,043
SNNP	3,159,945	875,604	3,295,692	835,391	3,974,899	981,728	4,197,643	998,182	2,805,408	777,334
Gambela	35,951	12,020	50,507	20,177	36,286	9,320	50,507	20,177	28,089	10,189
Harari	23,306	3,987	23,020	4,767	21,253	4,240	31,194	4,250	33,113	6,118
Dire Dawa	23,417	5,607	25,787	5,270	23,455	5,252	27,478	4,537	30,213	7,576

(Source, CSA, AgSS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

Number of irrigation users by sex of holder, region and survey years

	2006 E.C		2007		2008		2009		2010	
Region	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Country Total	1,052,819	159,460	1,059,297	150,265	1,252,242	170,530	1,843,923	260,658	1,843,923	260,658
Tigray	124,056	26,904	113,613	22,489	126,232	28,916	143,101	37,752	143,101	37,752
Afar	10,683	1,943	13,267	2,372	4,917	1,266	144,939	40,013	144,939	40,013
Amhara	520,718	67,988	479,181	60,741	631,748	82,540	689,085	91,280	689,085	91,280
Oromia	264,953	37,368	300,671	42,403	320,832	33,764	653,906	65,624	653,906	65,624
Somali	7,655	1,010	11,552	948	8,886	1,603	9,835	1,888	9,835	1,888
Benishangul-Gumuz	6,980	1,588	9,047	1,517	10,756	1,478	7,398	1,604	7,398	1,604
SNNP	105,002	20,255	117,738	18,392	135,209	18,871	177,575	21,094	177,575	21,094
Gambela	258	10	-	-	156	-	1,062	92	1,062	92
Harari	6,870	972	7,833	747	7,720	1,128	11,288	606	11,288	606
Dire Dawa	5,643	1,423	6,395	655	5,783	964	5,733	705	5,733	705

(Source, CSA, AgSS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

Number of agricultural holders with soil and water conservation practice by sex, region and survey years

	2006 E.C		2007		2008		2009		2010	
Region	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Country Total	9,492,459	2,013,888	6,911,921	1,351,771	10,285,467	2,058,047	12,239,653	2,320,278	11,139,543	2,252,415
Tigray	696,125	221,720	665,676	197,907	693,700	216,434	718,028	219,185	721,764	230,637
Afar	3,808	796	4,017	396	5,245	796	68,668	31,680	3,965	109
Amhara	3,373,257	666,140	2,851,352	510,662	3,571,451	672,413	3,613,329	700,484	3,839,828	744,402
Oromia	3,833,293	717,116	2,643,922	471,102	4,276,765	750,868	5,869,170	963,280	4,794,846	835,072
Somali	57,553	14,324	50,781	5,699	58,082	8,219	65,873	7,134	95,663	11,035
Benishangul-Gumuz	89,777	16,738	59,342	9,220	97,554	16,273	83,293	19,417	118,494	27,148
SNNP	1,392,611	369,445	590,989	149,400	1,540,285	385,581	1,761,193	371,433	1,507,985	394,792
Gambela	1,334	88	-	-	2,222	174	4,445	428	1,188	52
Harari	23,125	3,691	22,773	4,590	20,941	3,763	31,194	3,953	32,883	5,774
Dire Dawa	21,574	3,830	23,070	2,794	19,222	3,527	24,460	3,284	22,926	3,394

(Source, CSA, AgSS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

Number of agricultural holders with community watershed management practice participation by sex, region and years

Region	2006 E.C		2007		2008		2009		2010	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Country Total	3,408,788	1,940,559	3,569,187	1,851,580	3,740,747	1,976,997	4,638,432	2,357,401	3,405,843	1,776,071
Tigray	147,695	121,072	125,312	98,973	145,084	96,982	122,215	103,836	140,188	118,350
Afar	56,332	12,330	70,247	17,837	16,963	4,316	489,818	183,833	35,120	8,041
Amhara	706,167	462,867	824,337	498,480	807,614	497,382	846,386	527,791	800,692	522,367
Oromia	1,294,766	704,584	1,348,311	714,209	1,451,783	759,713	1,928,596	917,507	1,665,929	723,546
Somali	139,798	38,790	133,576	29,875	100,671	23,634	223,218	63,024	164,872	33,512
Benishangul-Gumuz	104,219	38,816	73,812	33,574	67,434	32,734	60,128	31,446	45,520	36,149
SNNP	920,673	544,642	985,340	452,872	1,113,251	547,331	911,798	505,365	524,748	320,069
Gambela	32,507	11,392	-	-	31,554	8,915	46,431	19,900	18,968	6,799
Harari	3,868	3,285	4,564	3,321	2,895	3,112	5,568	2,343	4,785	3,175
Dire Dawa	2,764	2,780	3,690	2,438	3,498	2,877	4,274	2,358	5,020	4,063

(Source, CSA, AgSS: 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18)

Education

Number of students admitted to preparatory school (11-12) by sex, region and years

Region	2013/14		2014/15		2015/16		2016/17		2017/18	
	Boy	Girl	Boy	Girl	Boy	Boy	Girl	Boy	Girl	Boy
Country Total	213,545	175,495	230,764	195,010	277,312	235,073	283,494	236,548	306,601	247,417
Tigray	15,864	16,576	18,729	18,268	22,259	19,472	18,719	15,286	20,067	15,609
Afar	1,459	941	3,412	1,788	2,484	1,224	4,190	2,287	3,025	1,907
Amhara	55,608	47,143	55,608	47,143	72,237	65,828	63,999	56,697	79,545	71,614
Oromia	60,702	43,415	64,757	51,438	80,324	62,903	88,207	69,431	95,263	69,485
Somali	12,131	5,051	16,553	7,715	13,348	6,566	13,174	6,700	14,361	7,956
Benishangul-Gumuz	2,653	1,914	41,947	35,231	2,560	2,188	64,846	53,725	3,388	2,809
SNNP	37,958	28,976	2,201	1,718	52,924	43,698	3,053	2,773	63,088	46,998
Gambela	3,096	810	3,346	1,001	4,821	1,427	3,816	983	3,556	1,017
Harari	783	689	916	852	959	970	812	812	777	745
Addis Ababa	21,839	28,779	21,543	28,461	23,241	29,060	20,880	26,353	21,956	27,887
Dire Dawa	1,452	1,201	1,752	1,395	2,155	1,737	1,798	1,501	1,575	1,390

(Source, MOE, EMIS: 2015/16, 2016/17 and 2017/18)

Number of Students enrolled in TVET by sex, region and years

	2015/16		2016/17		2017/18	
Region	Male	Female	Male	Region	Male	Female
Country Total	143,467	155,295	144,370	152,336	141,001	145,763
Tigray	7,658	7,363	13,190	12,521	18,146	19,803
Afar	990	648	990	648	990	648
Amhara	32,303	41,756	35,325	44,192	23,708	28,728
Oromia	46,727	48,077	38,725	37,563	37,190	36,721
Somali	2,561	2,090	2,561	2,090	2,561	2,090
Benishangul-Gumuz	2,960	4,332	2,960	4,332	28,068	27,359
SNNP	26,496	26,908	26,496	26,908	5,663	6,132
Gambela	1,138	932	1,138	932	1,138	932
Harari	2,525	2,821	2,876	2,782	3,428	2,982
Addis Ababa	20,109	20,368	20,109	20,368	20,109	20,368
Dire Dawa	2,696	2,681	2,696	2,681	2,385	2,459

(Source, MOE, EMIS: 2015/16, 2016/17 and 2017/18)

Number of teachers in TVET by sex, region and year

Region	2015/16		2016/17		2017/18	
	Male	Female	Male	Region	Male	Female
Country Total	18,804	5,375	21,857	6,135	15,398	3,835
Tigray	1389	511	3096	792	4063	977
Afar	177	29	177	29	177	29
Amhara	3287	922	7472	1783	2881	706
Oromia	9084	1958	5991	1526	2905	654
Somali	253	54	253	55	252	54
Benishangul-Gumuz	349	112	349	112	2333	557
SNNP	1654	1079	1654	1079	147	18
Gambela	77	13	77	13	77	12
Harari	192	44	446	94	390	63
Addis Ababa	1975	616	1975	616	1975	616
Dire Dawa	367	37	367	37	198	149

(Source, MOE, EMIS: 2015/16, 2016/17 and 2017/18)

Students, graduates and teachers in higher institutions

	2013/14		2014/15		2015/16		2016/17	
HE Indicators	Male	Female	Male	Female	Male	Female	Male	Female
Total number of students admitted to under graduate degree program by sex	413,555	180,018	475,971	253,057	512,915	265,851	506,604	281,429
Number of graduates in undergraduate program in higher educational institutions by sex	72,113	24,868	76,916	30,651	84,773	42,502	94,525	47,175
Total number of students admitted to post graduate /second degree/ program by sex	23,304	5,971	27,949	9,203	37,177	11,619	56,377	12,601
Number of graduates in postgraduate /second degree/ program by sex	6,755	1,186	9,706	1,974	8,253	1,952	12,270	2,940
Total number of students admitted to post graduate /Third degree/ program by sex	2,922	370	2,755	380	2,444	281	3,075	294
Number of graduates in postgraduate /Third degree/ program by sex	67	13	424	61	239	24	2,446	360
Numbers of Teachers in Higher Education	21,411	2,841	24,572	3,066	26,521	3,975	28,295	4,439

(Source, MOE, EMIS: 2013/14, 2014/15, 2015/16, and 2016/17)

Demography and Health

Number of female and male of all ages among tested who are with HIV positive by sex, Region and Years

	2015/16		2016/17		2017/18	
Region	Male	Female	Male	Female	Male	Female
Country Total	18,743	26,571	21,879	33,352	32,893	50,312
Tigray	1,191	1,881	1,972	2,825	2,267	3,103
Afar	1,119	989	613	638	540	720
Amhara	5,075	7,442	5,103	7,660	9,290	13,865
Oromia	4,266	6,685	5,165	8,618	7,612	12,882
Somali	401	388	118	153	248	679
Benishangul- Gumuz	200	212	244	323	190	296
SNNP	1,846	2,450	2,325	3,344	5,583	8,326
Gambela	462	599	913	1,162	1,085	1,395
Harari	125	146	116	151	195	364
Addis Ababa	3,755	5,393	5,011	7,945	5,401	8,178
Dire Dawa	303	386	299	533	310	504

(Source: MoH, HMIS: 2015/16, 2016/17 and 2017/18)

Annex 4: Formula use for Gender indicators in Education and Health

Education

1. Apparent Intake Rate (AIR)

$$AIR = \frac{New\ Enterant\ to\ grade\ 1(All\ ages)}{Population\ of\ the\ official\ school\ admission\ age} \text{X } 100$$

2. Net Intake Rate (NIR)

$$NIR = \frac{grade\ 1\ pupils\ of\ the\ official\ school\ admission\ age}{Population\ of\ the\ official\ school\ admission\ age} \text{X } 100$$

3. Gross enrollment rate (GER)

$$\text{GER} = \frac{No.of\ all\ pupils\ enrolled\ in\ the\ cycle\ (regardless\ of\ age)}{\text{population of related school age}} \times 100$$

4. Net Enrollment Rate (NER)

$$\text{NER} = \frac{No.of\ pupils\ of\ specified\ age\ in\ the\ cycle}{\text{population of related school age}} \text{ X } 100$$

5. Percentage of Female Teachers (PFT)

$$PFT = \frac{\text{total number of female teachers at a given level}}{\text{total number ofteachers (M \& F) at the same level in a given school} - \text{year}} \times 100$$

6. Promotion rate (PR)

$$PR(grdae\ g, year\ y) = \frac{Number\ of\ promoted\ pupils\ to\ grade\ g+1, year\ y+1}{Number\ of\ pupils\ in\ grade\ g, year\ y} \times 100$$

7. Repetition Rate (RR)

$$RR_g^y = \frac{(Repeters + readmiters)_g^{y+1}}{Enrollment_g^y}$$

8. Dropout (DR)

$$\Rightarrow DR_g^y = 1\text{-}PR_g^y\text{-}RR_g^y$$

9. Survival Rate Grade 5

$$Survival\ to\ Grade\ 5 = \frac{Enrolment\ in\ grade\ 5\ in\ year\ y}{Enrolment\ in\ grade\ 1\ in\ year\ y-4} \times 100$$

10. Completion Rate (CR)

$$CR = \frac{\text{total number of students successfully completing a given level}}{\text{total number of children of official age in the population}} \times 100$$

Formulas used to calculate Health Indicators

Age-Specific Fertility Rate (ASFR)

Definition

Age-Specific Fertility Fate (ASFR): Based on Age-Period Rates.

Coverage:

Population base: All women age 15-49 years in seven five-year age groups (15-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49 years)

Time period: Three years preceding the survey

Numerator: Number of births that occurred in a period (typically the 1-36 months before the survey) to women in the age group at the time of the birth (v008 - b3 in 1:36) (BR file)

Denominator: Number of women-years of exposure in the same period (1-36 months before the survey) of women in the age group

Calculation

The age-specific fertility rate is calculated as the quotient of the numerator divided by the denominator for each age group, multiplied by 1000. The result is an average rate over the 36-month period, expressed as an annual rate per 1000 women.

Total Fertility Rate (TFR)

Definition

The total fertility rate (TFR) is an age-period fertility rate for a synthetic cohort of women. It measures the average number of births a group of women would have by the time they reach age 50 if they were to give birth at the current age-specific fertility rates. The TFR is expressed as the average number of births per woman. Unless otherwise specified, the TFR is for all women.

Coverage:

Population base: All women age 15-49

Time period: Three years preceding the survey, excluding the month of interview (1-36 months before the survey)

Calculation

The TFR is the sum of the Age-Specific Fertility Rate (ASFR) for all women multiplied by five. The ASFRs are those for the seven five-year age groups from 15-19 to 45-49.

Maternal Mortality Ratio

Definition

Maternal mortality ratio (MMR): Number of maternal deaths per 100 000 live births.

Coverage:

Population base: Women age 15-49 years (IR file)

Time period: Seven-year periods of time preceding the survey, excluding the month of interview. Typically, 0-6 years preceding the survey (v008-1 to v008-84), but other time periods may also be calculated such as 7-13 years, 0-13 years, 0-10 years preceding the survey

Numerators:

Total maternal mortality rate for the period

Denominator: Age-adjusted general fertility rate (GFR) for the same time period

Calculation

The maternal mortality ratio (MMR) are calculated by dividing t the total maternal mortality rate by the general fertility rate for the same period and are expressed per 100,000 births

Adult age 15-49 mortality rate

Definition

Age 15-49 years total mortality rate.

Coverage:

Population base: Women and men age 15-49 years (IR file)

Time period: Seven-year periods preceding the survey, excluding the month of interview. Typically, 0-6 years preceding the survey (v008-1 to v008-84), but other time periods may also be calculated such as 7-13 years, 0-13 years, 0-10 years preceding the survey. Description below is for 0-6 years preceding the survey

Numerator:

Number of siblings of respondents who died in the period 0-6 years prior to the interview by five-year age group at time of death, disaggregated by sex.

Denominator:

Number of person-years of exposure of siblings of respondents during the period 0-6 years prior to the survey by five-year age group, disaggregated by sex.

HIV Prevalence in DHS

Among women and men interviewed and tested, percentage HIV positive

Definition

For surveys without testing to distinguish between HIV-1 and HIV-2:

1) Among the de facto women age 15-49 and men age 15-49/54/59 who were interviewed and tested, percentage HIV positive.

For surveys with testing to distinguish between HIV-1 and HIV-2:

2) Among the de facto women age 15-49 and men age 15-49/54/59 who were interviewed and tested, percentage HIV-1 positive.
3) Among the de facto women age 15-49 and men age 15-49/54/59 who were interviewed and tested, percentage HIV-2 positive.
4) Among the de facto women age 15-49 and men age 15-49/54/59 who were interviewed and tested, percentage HIV-1 or HIV-2 positive.

Coverage: Population base: Women (or men) age 15-49 [15-49/54/59] interviewed and tested

Time period: Current status at time of survey

Numerators: For surveys without testing to distinguish between HIV-1 and HIV-2: 1) Number of de facto women age 15-49 (or men 15-49/54/59) who are HIV positive. For surveys with testing to distinguish between HIV-1 and HIV-2: 2) Number of de facto women age 15-49 (or men 15-49/54/59) who are HIV-1 positive 3) Number of de facto women age 15-49 (or men 15-49/54/59) who are HIV-2 positive 4) Number of de facto women age 15-49 (or men 15-49/54/59) who are HIV-1 or HIV-2 positive. These are the number of women and men who completed an individual interview and whose blood specimen completed the HIV testing algorithm for the survey with a final HIV test result of HIV positive.

Denominator: Number of de facto women age 15-49 (or men 15-49/54/59) interviewed and tested (hiv03 in 0:7,9). This is the number of women and men who completed an individual interview, whose blood specimen completed the HIV testing algorithm for the survey with a final HIV test result, i.e., positive, negative, indeterminate, or inconclusive

Calculation

Quotient of the numerator divided by the denominator multiplied by 100.

Annex 5: List of Contact Persons at Federal Ministries and Regional Bureaus

NO	Name of expert	Bureau	Phone number
Tigray Regional State Bureau			
1	Dinkayehu Hailu	Education Bureau	0914754253
2	Rahel Hagos	Health bureau	0914703878
3	M edhin teklu	Bureau of agriculture and rural development	0921735549
4	Melaku Estifanos	Water Resource bureau	0914707349
5	Solomon gizaw	Road authority	0914151717
6	Birhan Gebremariam	Public service bureau	0914759762
7	Birhanu	Bureau of justice	0344402224
8	Leilti	Supreme court	0914707349
Afar Regional State Bureau			
1	Mohammed Ahmed	Education Bureau	0935212066
2	Yasin Mohammed	Health bureau	0912129070
3	Muktar mohammed	Bureau of agriculture and rural development	0921260467
4	Adem Bedlu	Water Resource bureau	0913287279
5	Mulu Alem	Road authority	0910301399
6	Assefa	Public service bureau	0912454771
7	Tilahun Demese	Bureau of justice	0911060956
8	Dawit Gebregziabher	Supreme court	0911027792
Amhara Regional State Bureau			
1	Debalu Yayeh	Education Bureau	0918708042

NO	Name of expert	Bureau	Phone number
2	Birke	Health bureau	0918702311
3	Mastewal	Bureau of agriculture and rural development	0918710075
4	Fikre	Water Resource bureau	0918714651
5	Abdela	Road authority	0989318379
6	Zomanesh	Public service bureau	0913952113
7	Abebech	Bureau of justice	0918708074
8	Meseret	Supreme court	0936371741
Oromia Regional State Bureau			
1	Bayissa	Education Bureau	0911753049
2	Eshetu Mesfin	Health bureau	0922370111
3	Bethelhem	Bureau of agriculture and rural development	0913212491
4	Hunde Amenti	Water Resource bureau	0912098534
5	Daniel	Road authority	0934161749
6	Yodit	Public service bureau	
7	Shimeles	Bureau of justice	
8	Nemo	Supreme court	0911752200

NO	Name of expert	Bureau	Phone number
SNNP Regional State Bureau			
1	Daniel	Education Bureau	0916863400
2	Demisse	Health bureau	0916860688
3	Nadew	Bureau of agriculture and rural development	0911392573
4	Amsal	Water Resource bureau	0911390356
5	Gebru	Road authority	0911067531
6	Zelalem	Public service bureau	0916621915
7	Zewditu	Bureau of justice	0913522904
8	Yeneehet	Supreme court	0925363679
Somali Regional State Bureau			
1	Abdukadir Sheikbeshir	Education Bureau	0930595033
2	Mohammed Ayele	Health bureau	0910484556
3	Abdi Adem	Bureau of agriculture and rural development	0915769696
4	Beshir Hassen	Water Resource bureau	0942099668
5	Ahmed Nur omer	Road authority	0915744761
6	Zelalem Weldeshewa	Public service bureau	0915745274
7	Adem ali	Bureau of justice	0915116602
8	Bedlu Balcha	Supreme court	0915749933
Gambela Regional State Bureau			
1	Shewa Tsegaye	Education Bureau	0911020427
2	Tewelde Birhan	Health bureau	0910484556
3	Tesfalem Gidey	Bureau of agriculture and rural development	0912416845

4	Asemamaw Sahele	Water Resource bureau	0921330765
5	Ukuno Uger	Road authority	0935128813
6	Bom Koak	Public service bureau	0917834499
7	Ariyat Omed	Bureau of justice	0911831522
8	Mengistu Tefera	Supreme court	0917318013
Benshangul Regional State Bureau			
1	Tewodros	Education Bureau	0928585662
2	Hundessa	Health bureau	0921891575
3	Shaleka	Bureau of agriculture and rural development	0923387475
4	Kindeye setotaw	Water Resource bureau	0910649061
5	Teyeku	Road authority	0942431857
6	Binyam	Public service bureau	0917458149
7	Biruktawit	Bureau of justice	0922210700
8	Obsa	Supreme court	0917813793

NO	Name of expert	Bureau	Phone number
HARARI Regional State Bureau			
1	Mesayneh Eshetu	Education Bureau	0931522563
2	Mohammed Muhdin	Health bureau	0947728620
3	Shekur Ahmed	Bureau of agriculture and rural development	0911053903
4	Anteneh	Water Resource bureau	0912401970
5	Dejene Abera	Road authority	0912691001
6	Girma	Public service bureau	0908785060
7	Wasihun	Bureau of justice	0921251677
8	Sultan Kemal	Supreme court	0910074737
DIRE DEWA Administration Bureau			
1	Girmachew Ayele	Education Bureau	0913214617
2		Health bureau	
3	Tesfaye Alemayehu	Bureau of agriculture and rural development	0910601335
4	Abel Ayele	Water Resource bureau	0973539322
5	Bezawit Chernet	Road authority	0915035378
6	Tedros Bachore	Public service bureau	0920467888
7	Abiy Tadesse	Bureau of justice	0910200893
8	Etsegenet Moges	Supreme court	0915761472
SNNP Regional State Bureau			
1	Binyam	Education Bureau	0913489442
2	Debritu	Health bureau	0911347354
3	Wasihun	Water Resource bureau	0911872083

4	Yordanos	Road authority	0960368448
5	Temesgen	Public service bureau	0118120934
6	Seblemariam Derebe	Bureau of justice	0911556001
7	Tigist	Supreme court	0915746042

Federal Bureau			
1	Million	Ministry of education	0911673188
2	Ousman Esleman	Ministry of Health	0911912784
3	Gashaw	Ministry of Agriculture	0912977578
4	Assefa	Ministry of Water irrigation and energy	0911782421
5	Amha	Ethiopian Road Authority	0911562356
6	Tesfaye	Public Service Commission	0910267094
7	Zenabu	Federal Attorney General	
8	Shumet	Federal Supreme court	0982415822
9	Tesfalem	Ethiopian Election Board	0910088785
10	Minyibel	Federal Police Commission	
11	Amsalu	Federal small scale enterprise	0911055623
12	Ashenafi	Ministry of Women children And youth	0913824009
13	Mekiya	House of peoples Representative	