

Prospects for Rural Jobs in Ethiopia

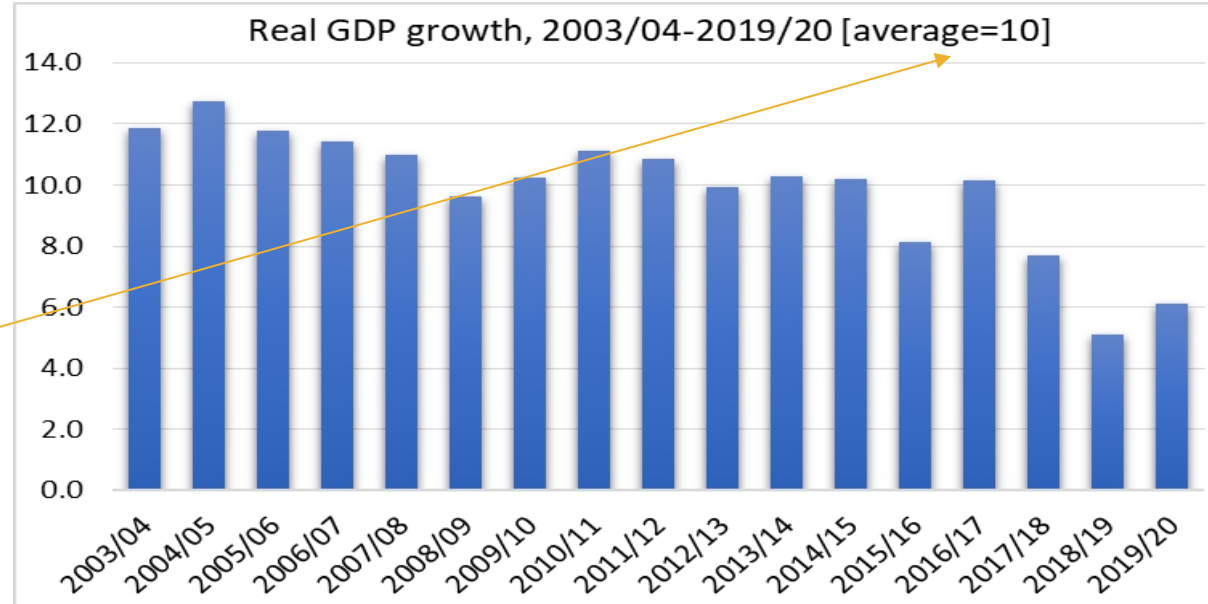
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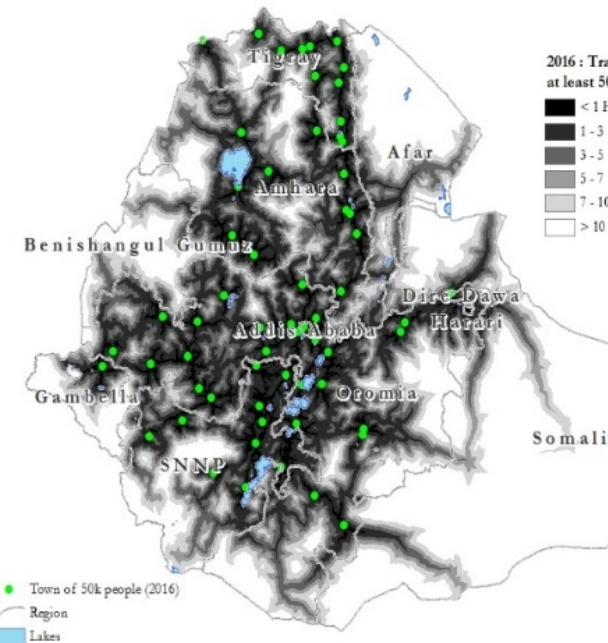
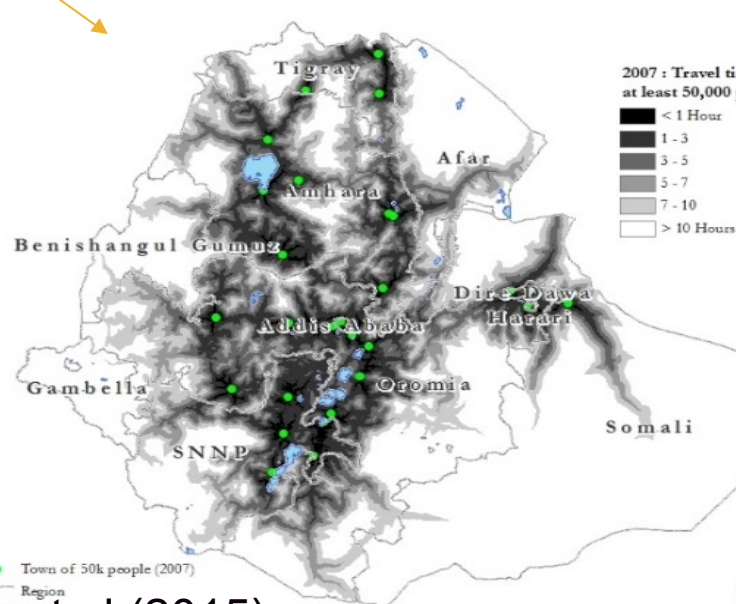
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1. Introduction

- Transformation in Ethiopia
- GDP growth
- Urbanization & Infrastructure



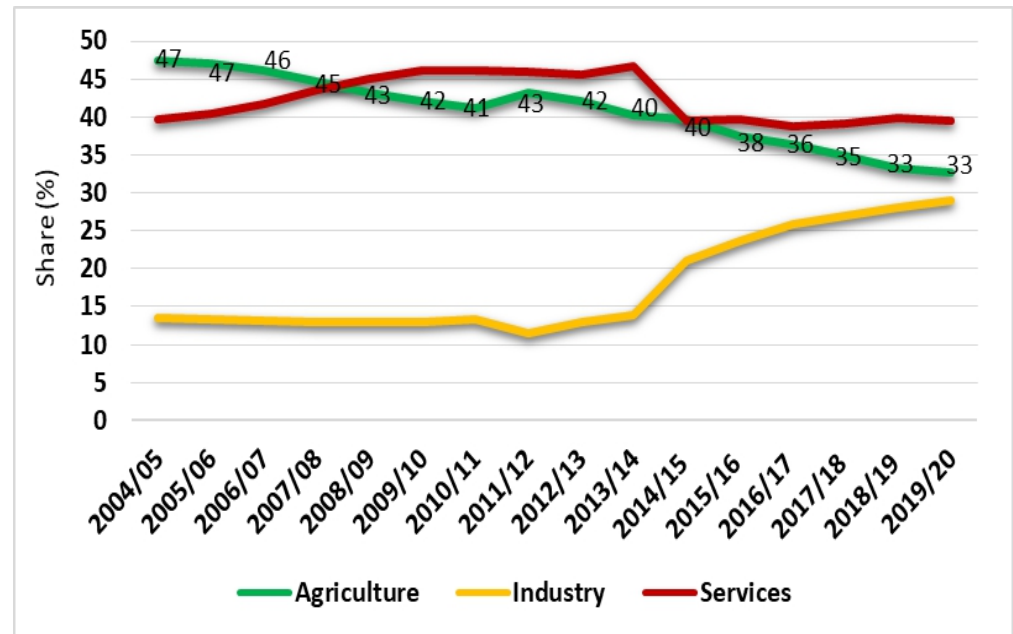
- Still remains one of the poorest countries
- Faced with many challenges



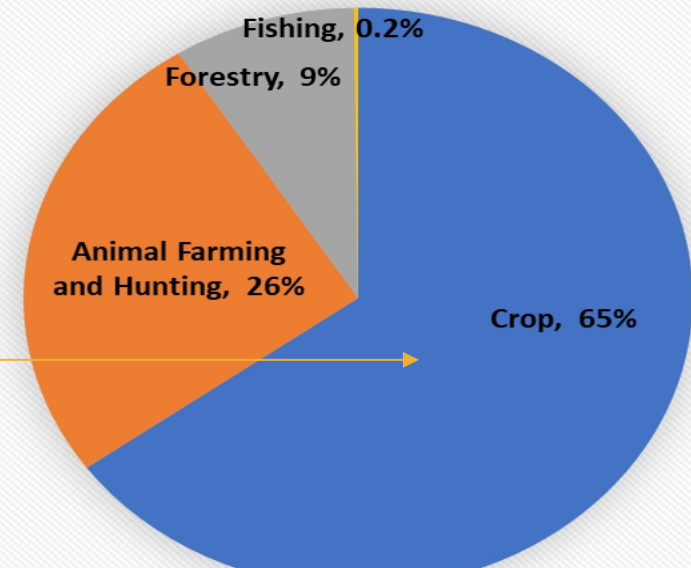
Source: MoFED, Minten et.al (2015)

1. Introduction

- One of the major challenges is that the economy still relies on weather dependent agriculture sector:
- Agriculture still accounts for:
 - 33% of GDP
 - 80% of export [2019, NBE]
 - 67% of labor force [WB, 2019]



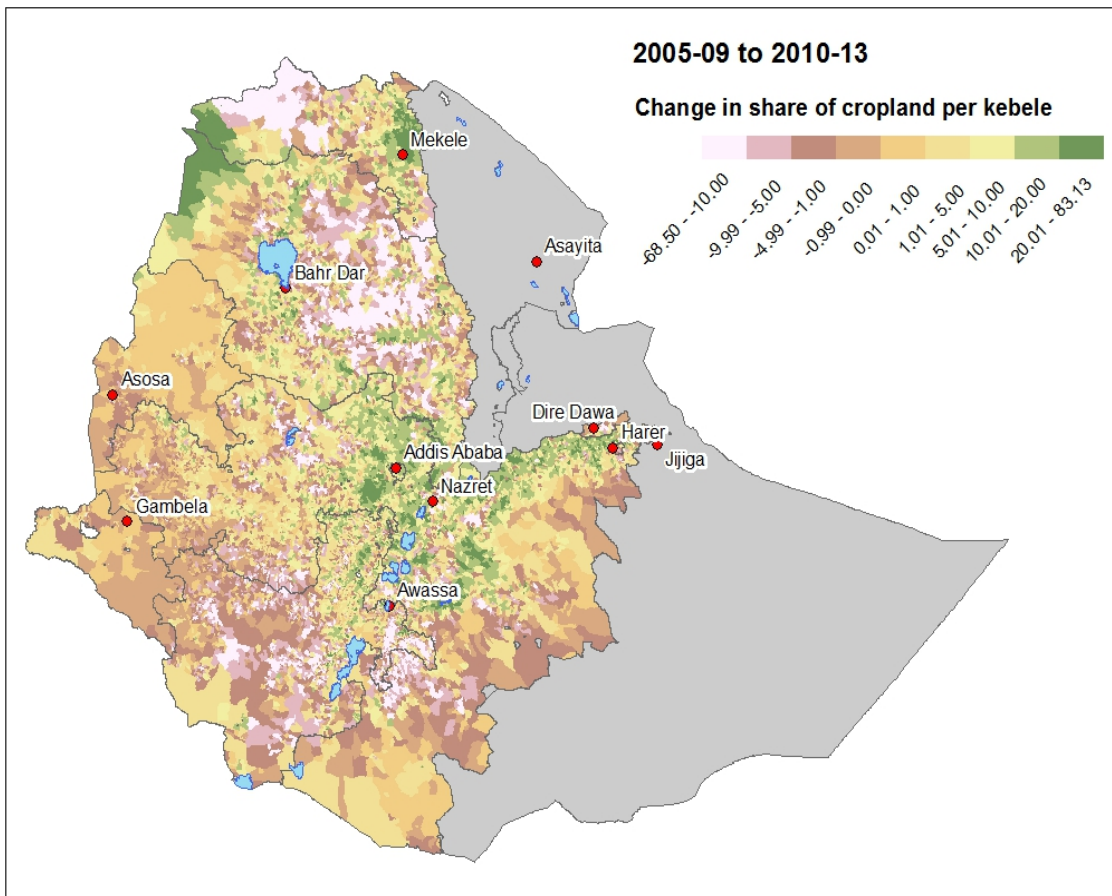
- The largest share of Agricultural GDP is composed of the rather complex crop production [NBE, 2019]



1. Dependence on agriculture, particularly in crop production, is unsustainable due to three factors:

1. A. First, cropland is limited.

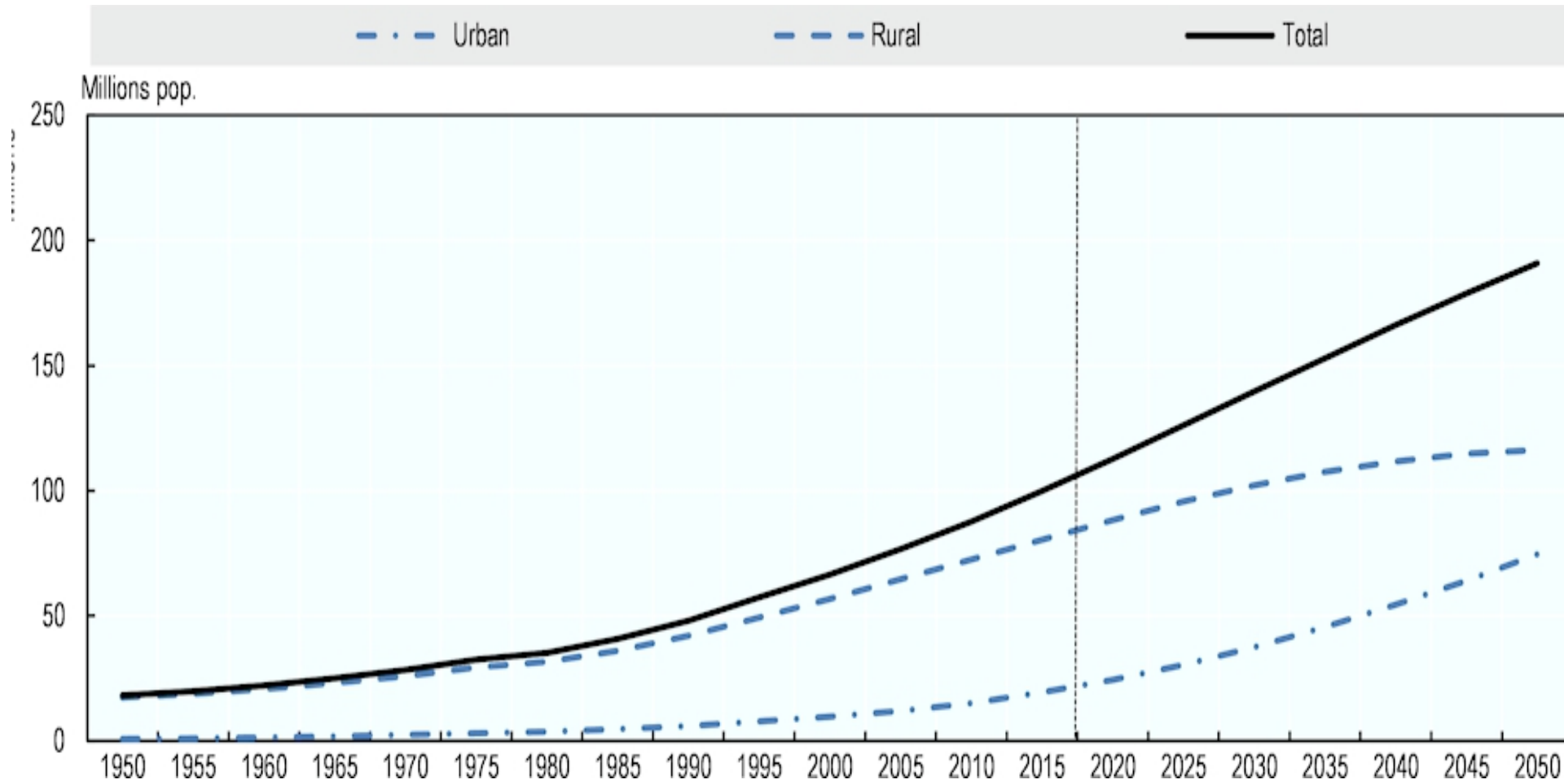
Percentage Point Change in Cropland Area: 2005-09 to 2010-13



Source: (Dorosh et.al., 2016)

1. B. Second, growth in rural population is faster relative to growth in cultivated area.

- 70% of the population is under the age of 30.
- CSA (2013) indicates this trend will continue into the future

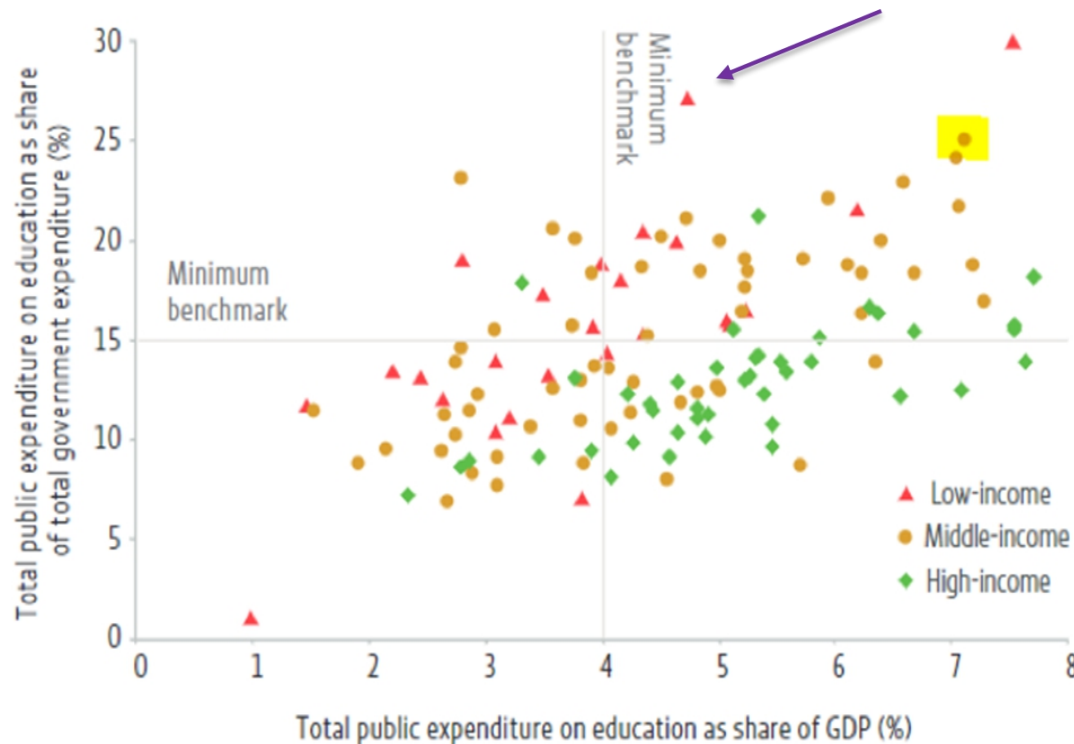


Source: OECDLibrary (2020)

1. C. Growing and increasingly educated labor force.

School enrollment in Ethiopia

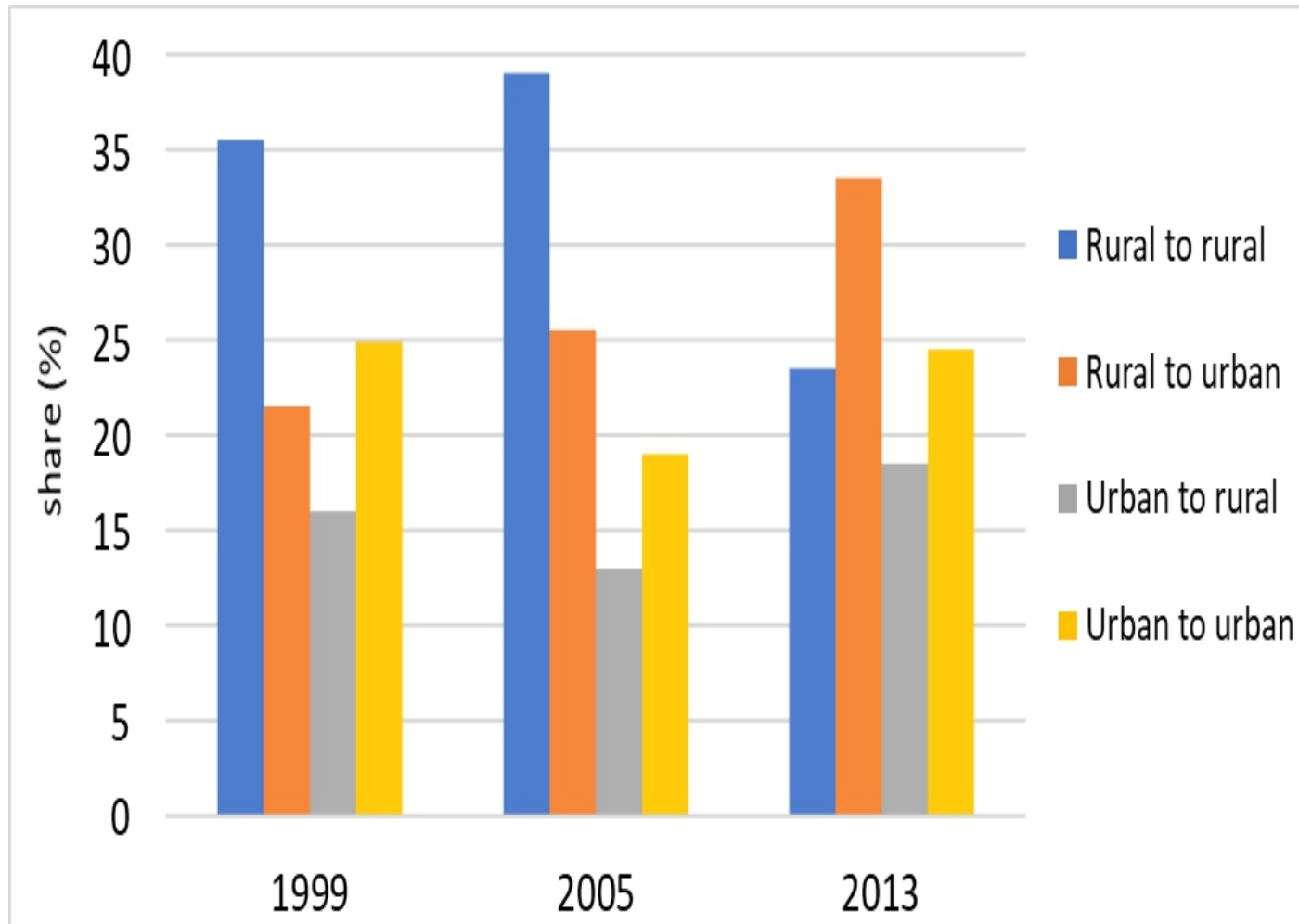
Public education expenditure as a share of GDP and of total public expenditure, countries below both benchmarks, 2017 or most recent year



- 27% of public expenditure
 - second highest
- This is far more than the international suggested benchmark of 15-20% and the regional average of 16%.

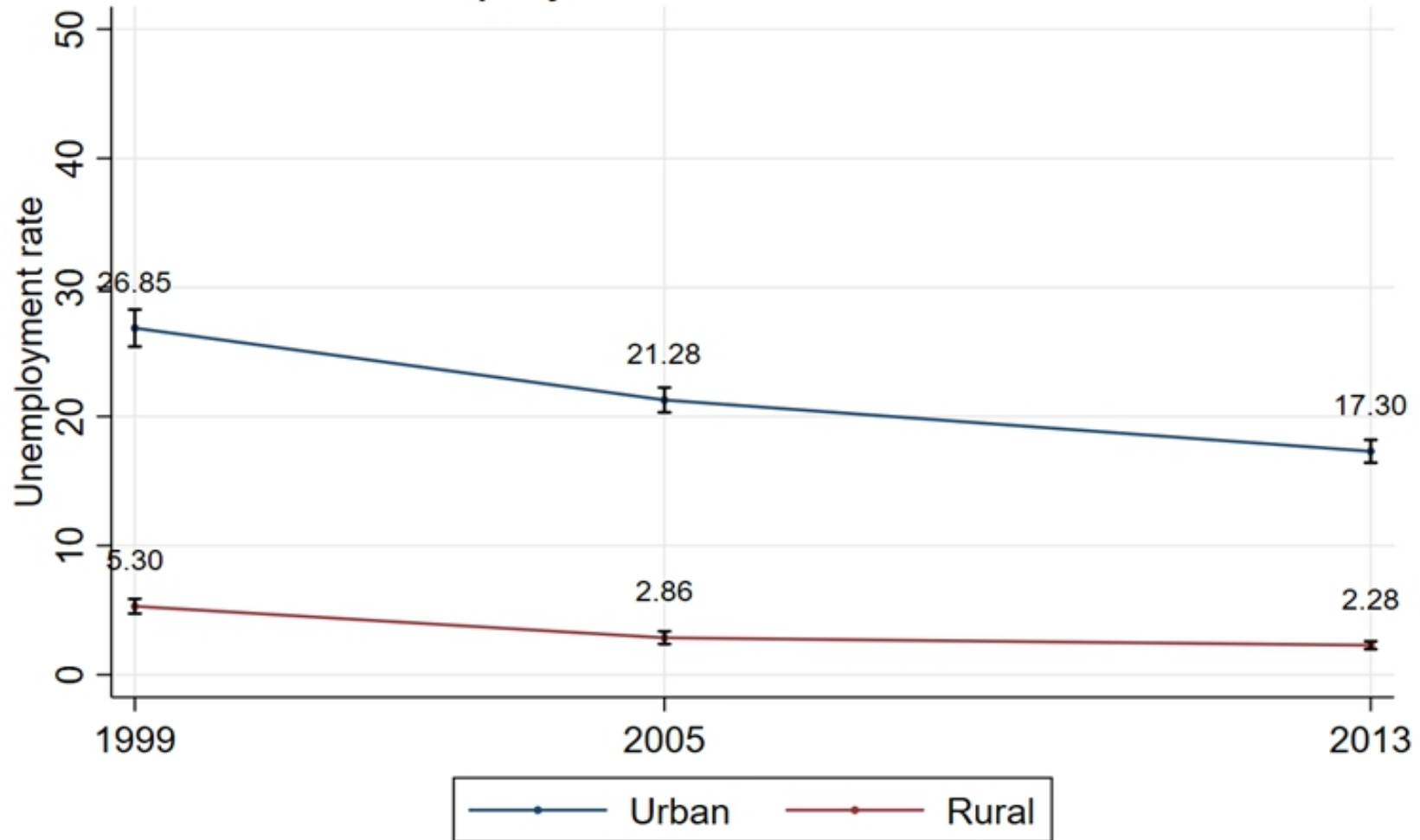
... hence, the youth often migrate to other areas in search of better jobs and life. Particularly, to urban areas

Migration (internal) by destination type, Source: Bundervoet (2018)



..but unemployment is much higher in urban areas

Unemployment rate: Urban vs Rural



Source: NLFS 1999, 2005 and 2013

2. Questions:

1. What kind of jobs are available in rural areas (farming or off-farm) that have the potential to retain the youth in rural areas?
2. What factors determine availability and access to rural jobs?

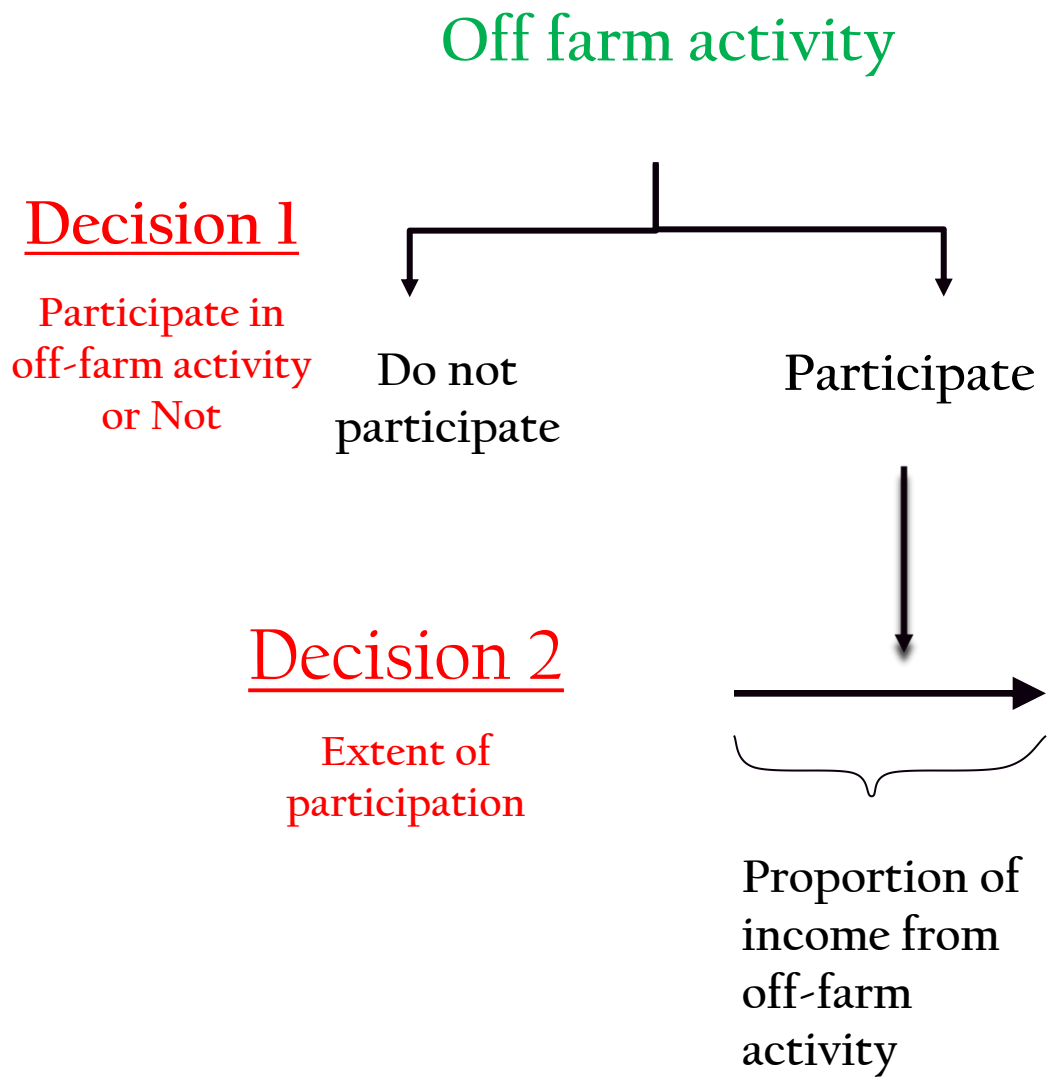
3. Data and Methodology

3.1. Data:

This study relies on different datasets:

- i) The National Labor Force (NLF) surveys of CSA, which were conducted in 1999, 2005, and 2013, [Nationally Representative]
- ii) the Urban Employment-Unemployment (UEU) surveys, conducted in 11 years during 2003 through 2018 [Urban areas]
- iii) The Feed-the-Future (FtF-I) program:
 - Three rounds form Phase-I:
 - baseline (2013),
 - midline (2015), and
 - endline (2018)
 - Five regions:
 - Tigray,
 - Amhara,
 - Oromiya,
 - SNNP, and
 - Somali
 - 6,700 HHs in 84 woredas

3.2. Methodology: Double Hurdle Model



4. Results

4.1. Youth households in particular making progress toward income diversification .

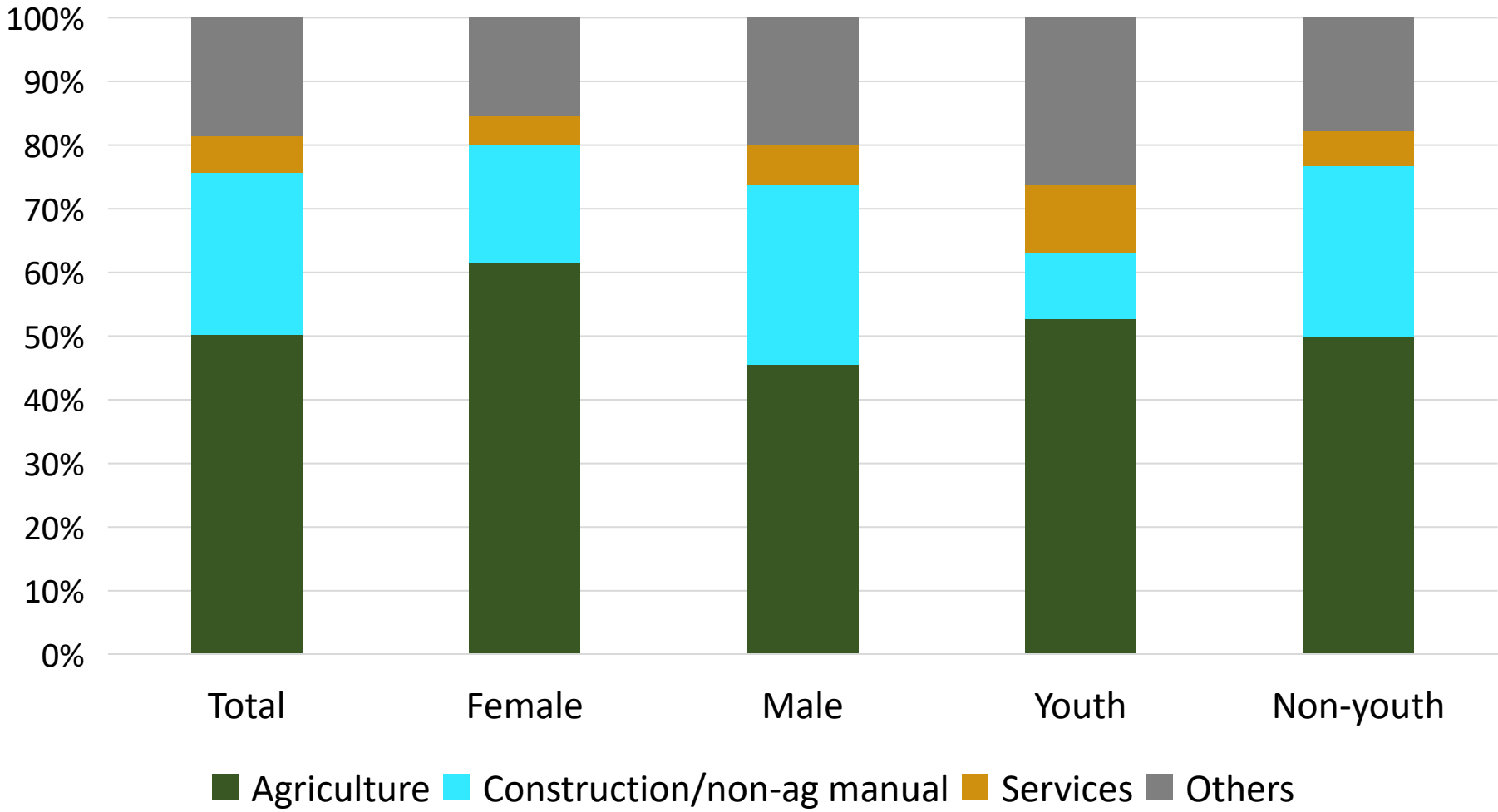
- Enterprise and wage, more specifically, agricultural wage income are more important for households with female and youth heads

| Category | Year | Agriculture | | Wage | | Enterprise | Remittance (transfer) |
|----------|------|-------------|-----------|--------------|----------------------|------------|--------------------------|
| | | Crop | Livestock | Agricultural | Non- agricultural | | |
| National | 2013 | 87.4 | 9.3 | 0.8 | - | 2.4 | - |
| | 2015 | 74.5 | 13.5 | 1.2 | 1.4 | 3.0 | 6.4 |
| | 2018 | 73.4 | 14.5 | 1.4 | 0.7 | 3.0 | 7.0 |
| Female | 2013 | 85.1 | 10.2 | 1.2 | - | 3.5 | - |
| | 2015 | 68.3 | 12.0 | 1.7 | 1.7 | 3.8 | 12.5 |
| | 2018 | 65.0 | 15.8 | 1.8 | 0.6 | 3.5 | 13.3 |
| Male | 2013 | 88.2 | 9.0 | 0.7 | - | 2.1 | - |
| | 2015 | 76.9 | 14.1 | 1.0 | 1.3 | 2.7 | 4.0 |
| | 2018 | 76.6 | 14.1 | 1.2 | 0.8 | 2.8 | 4.5 |
| Youth | 2013 | 84.7 | 10.2 | 1.7 | - | 3.3 | - |
| | 2015 | 74.6 | 12.4 | 1.7 | 2.1 | 4.5 | 4.7 |
| | 2018 | 71.0 | 12.8 | 3.5 | 0.7 | 5.3 | 6.6 |

Source: Based on Feed the Future Ethiopia Survey 2013, 2015 and 2018

4.2. Types of wage labor participated by households

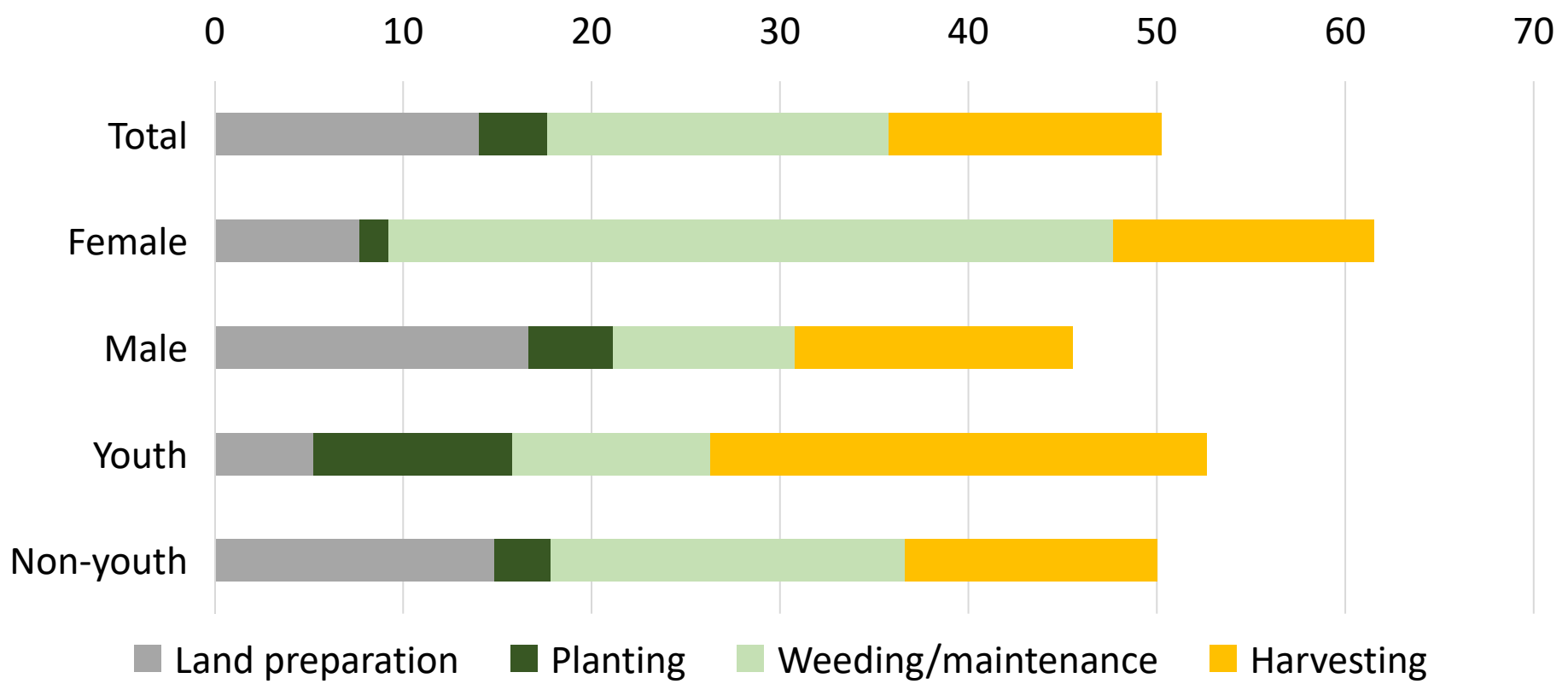
- In general, agricultural wage accounts for the largest share (around 50 percent) and the non-agricultural wage is around 31 percent



Source: Based on Feed the Future Ethiopia Survey 2013,2015 and 2018

4.3. Wage (agricultural) labor participated by households

- The share of female heads in agricultural employment is significantly higher than male heads



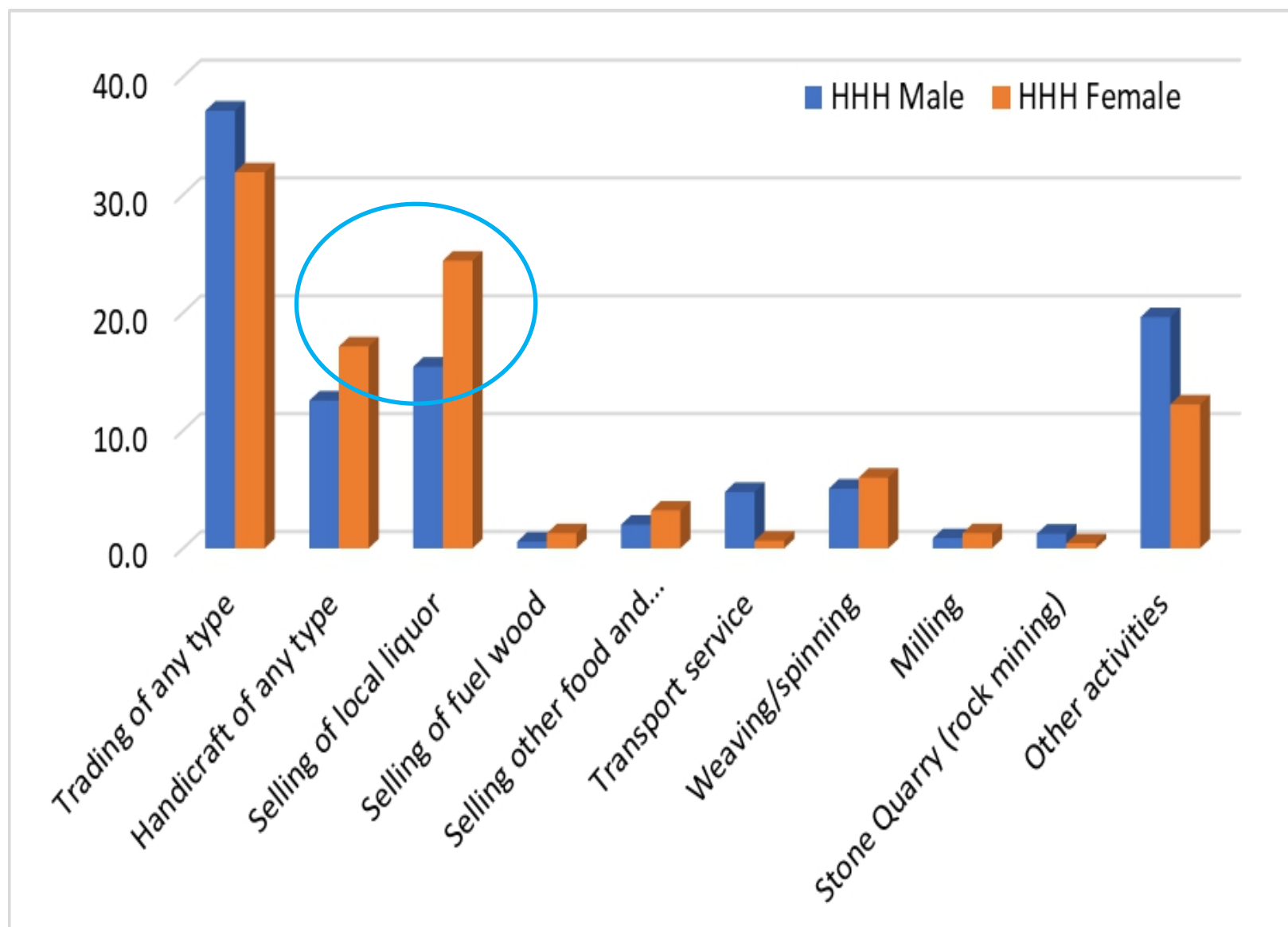
Source: Based on Feed the Future Ethiopia Survey ,2018

4.4. Household participation rate in non-farm activities: 2013-2018

| | 2013 | 2015 | 2018 |
|--|------|------|------|
| Trading (grain, livestock, retailing etc.) | 33.6 | 38.6 | 30.9 |
| Handicraft (e.g., blacksmith, pottery) | 16.7 | 13.1 | 12.7 |
| Selling of local liquor | 15.4 | 18.2 | 21.5 |
| Selling of fuel wood | 2.0 | 0.5 | - |
| Selling other food and nonfood items | 3.2 | 2.7 | 5.0 |
| Transport service | 3.7 | 2.2 | 6.2 |
| Weaving/spinning | 6.5 | 6.1 | 2.4 |
| Milling | 2.0 | 0.7 | 0.6 |
| Stone Quarry (rock mining) | 1.5 | 0.8 | 0.9 |
| Other activities | 15.4 | 17.1 | 20.0 |

Source: Based on Feed the Future Ethiopia Survey 2013,2015 and 2018

4.5. Non-farm activities by gender



Source: Based on Feed the Future Ethiopia Survey 2013, 2015 and 2018

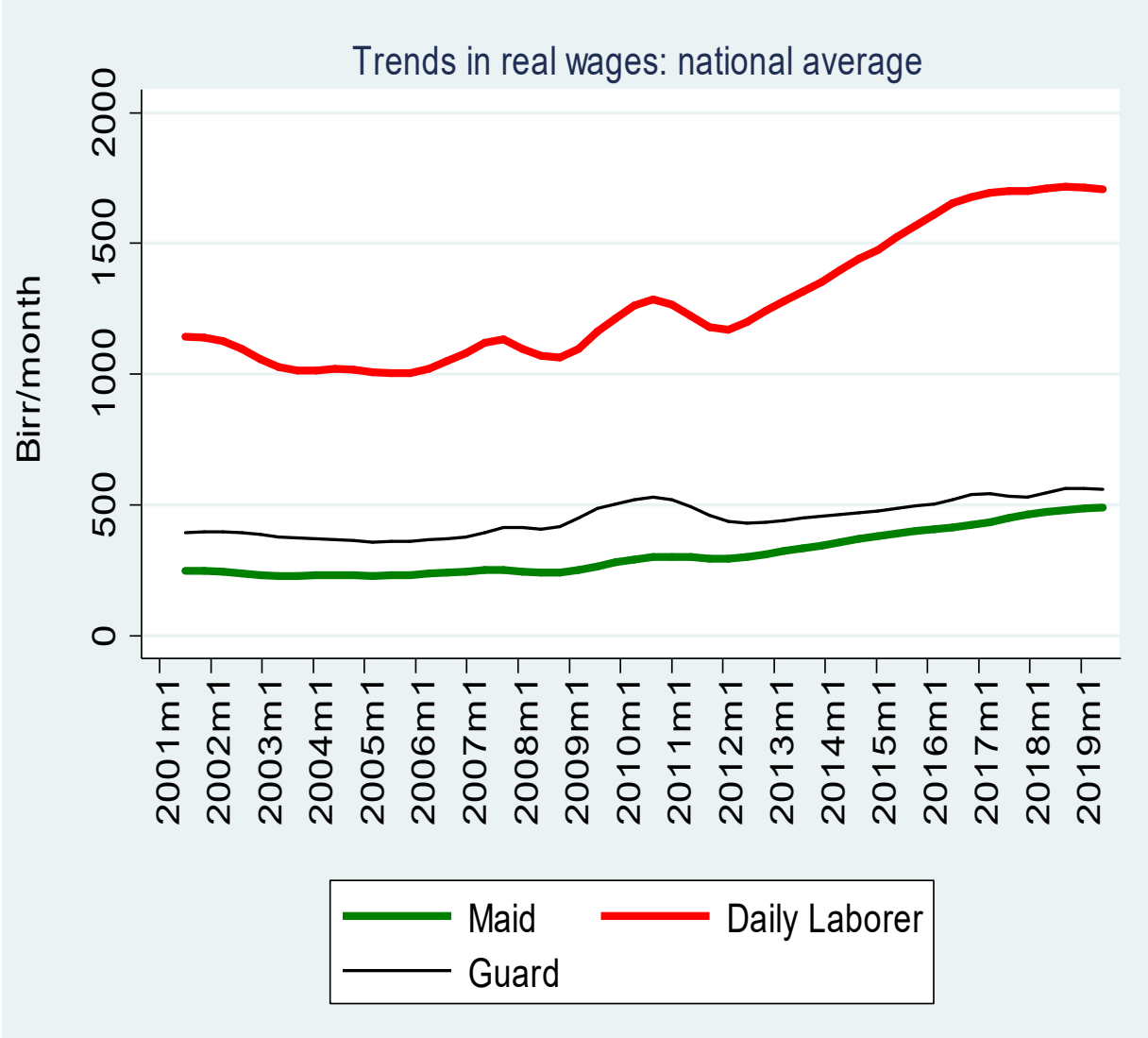
4.7. With growing rate of school enrollment rate (i.e., less family labor), more and more sectors are relying on hired labor: e.g., vegetable production:

Labor use

| Labor use | | Share | | |
|------------------------------|---|-----------|--------------------|------------------------|
| | | Own labor | Piecemeal contract | Daily/monthly contract |
| a. Guarding field | % | 5.4 | 0.0 | 94.6 |
| b. Plowing | % | 2.7 | 64.9 | 32.4 |
| c. Fencing | % | 8.1 | 40.5 | 51.4 |
| d. Planting | % | 0.0 | 18.9 | 81.1 |
| e. Sticking/building ladders | % | 5.7 | 14.3 | 80.0 |
| f. Tying plants | % | 5.7 | 14.3 | 80.0 |
| g. Spraying | % | 11.4 | 25.7 | 62.9 |
| h. Fertilizer use | % | 23.5 | 8.8 | 67.7 |
| i. Irrigation | % | 8.6 | 8.6 | 82.9 |
| j. Harvesting | % | 0.0 | 18.9 | 81.1 |

Source: Minten et.al (2020)

4.8. In line with this, rural wages rates are increasing over time in real terms



4.9. Associates of share of income (Double-hurdle)

| Variables | Unit | Off-farm | | | |
|---------------------------------|------------|---|---------|--------------------------------|---------|
| | | Decision to participate in off-farm (mfx) | | Share of off-farm income (mfx) | |
| | | mfx | z-value | mfx | z-value |
| Share of off-farm income | percent | | | | |
| Characterisitics of HH | | | | | |
| Age of head | number | -0.374*** | -6.48 | -6.269 | -0.81 |
| Martital status of head | married=1 | -0.128** | -2.28 | -3.072 | -0.47 |
| HH size | numer | 0.099* | 1.84 | -1.469 | -0.23 |
| TotHH_AreaHa | ha | -0.240*** | -4.29 | -77.966** | -9.13 |
| Share of rented in land | share | 0.003*** | 4.27 | 0.014 | 0.17 |
| Tropical Livestock Unit | number | -0.112*** | -3.85 | 1.131 | 0.34 |
| Access indicators | | | | | |
| Credit | yes=2 | 0.340*** | 7.82 | -6.163 | -1.32 |
| Electricity | yes=1 | 0.352*** | 6.46 | 2.360 | 0.41 |
| Mobile ownership | yes=3 | 0.282*** | 7.39 | 8.516* | 1.91 |
| Location | | | | | |
| Coffee woreda | yes=1 | -0.033 | -0.3 | 18.896* | 1.72 |
| Pop density | people/km2 | 0.339*** | 4.45 | -23.237** | -2.11 |
| PSNP in PA | yes=1 | 0.137** | 2.26 | -5.433 | -0.76 |
| Travel time to nearest town | minutes | 0.170*** | 2.7 | 5.194 | 0.68 |
| LR_AvrAnnual_RF | | -0.574** | -2.51 | 53.217** | 2.00 |
| Additional controls | | | | | |
| More HH Characteristics | | yes | | yes | |
| FtF round | | yes | | yes | |
| Zone ID | | yes | | yes | |
| Intercept | | 1.867 | 0.80 | -418.95** | 23.46 |
| No of observations | | | | 14,637 | |
| *** p<0.01, ** p<0.05, * p<0.1 | | | | | |

Source: Based on Feed the Future Ethiopia 2013, 2015, and 2018

5. Conclusion

- We document two important factors associated with off-farm activities.
- First, location is found to be well associated with involvement in off-farm activity.
 - Households located in:
 - population dense areas,
 - coffee growing locations,
 - areas that receive productive safety net programs (PSNP) tend to participate in income generating off-farm activities.
- Second, households with better infrastructure such as electricity, credit facility, and mobile phone coverage are more likely to participate in off-farm activities.

6. Policy Implications

- Findings were associated with energy, mobile phone access, and credit access.
 - This reinforces importance of continued telecomm reform and expanded rural access.
 - Credit access, at least, in targeted areas is important.
- Proximity to town/markets facilitates off-farm activities, closer to wider market, reinforcing that road expansion had some impact.
- Rural jobs research agenda needs more attention to identify how to accelerate

6. Policy Implications

- Implications for further work:
- PSNP result: areas that receive productive safety net programs (PSNP) are likely to engage in off-farm activities
 - Can we scale up PSNP from food security and poverty to sustainable job creation schemes?
- Remittances have increased as share of income.
 - Is it linked to migration?
- Rural wages are increasing in real terms
 - The implications should be carefully studied.

Thank You

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